

CLERK OF THE COUNCIL
Dana Brown-Davis, C.M.C.

COUNTY COURTHOUSE
311 Grand Avenue, Suite #105
Bellingham, WA 98225-4038
(360) 778-5010



COUNCILMEMBERS
Rud Browne
Barry Buchanan
Tyler Byrd
Todd Donovan
Ben Elenbaas
Carol Frazey
Kathy Kershner

WHATCOM COUNTY COUNCIL

**COMBINED
AGENDA PACKET FOR
NOVEMBER 9, 2021**

**INCLUDES INFORMATION
FOR THE FOLLOWING MEETINGS:**

**9A.M. – COMMITTEE OF THE WHOLE – EXECUTIVE SESSION
(ADJOURNS BY 9:30 A.M.)**

**9:35 A.M. – PUBLIC WORKS AND HEALTH COMMITTEE
(ADJOURNS BY 10:05 A.M.)**

**10:10 A.M. – CRIMINAL JUSTICE AND PUBLIC SAFETY COMMITTEE
(ADJOURNS BY 10:30 A.M.)**

**10:40 A.M. – FINANCE AND ADMINISTRATIVE SERVICES COMMITTEE
(ADJOURNS BY 12:30 P.M.)**

**1:30 P.M. – PLANNING AND DEVELOPMENT COMMITTEE
(ADJOURNS BY 2:45 P.M.)**

**2:50 P.M. – COMMITTEE OF THE WHOLE
(ADJOURNS BY 4:45 P.M.)**

6 P.M. – COUNCIL

PARTICIPATE IN VIRTUAL COUNCIL MEETINGS

THE COUNCIL IS CURRENTLY HOLDING ALL MEETINGS REMOTELY

**VIEW MEETING SCHEDULES, AGENDAS, MINUTES, VIDEOS, AND ARCHIVES AT
[WHATCOM.LEGISTAR.COM](https://whatcom.legistar.com)**

**FOR INSTRUCTIONS ON HOW TO WATCH OR PARTICIPATE IN COMMITTEE AND
COUNCIL MEETINGS, PLEASE VISIT
[WHATCOMCOUNTY.US/3415/PARTICIPATE-IN-VIRTUAL-COUNCIL-MEETINGS](https://whatcomcounty.us/3415/participate-in-virtual-council-meetings)
OR CONTACT THE COUNCIL OFFICE AT 360.778.5010**

COMMITTEE AGENDAS

COUNCIL COMMITTEE OF THE WHOLE – EXECUTIVE SESSION
9:00 A.M. TUESDAY, November 9, 2021 (ADJOURNS BY 9:30 A.M.)
Virtual Meeting

Call To Order

Roll Call

Announcements

Individuals who require special assistance to participate in the Council’s meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

Committee Discussion

1. AB2021-646 Update on negotiations and planning strategy discussion regarding collective bargaining [Discussion of this item may take place in executive session (closed to the public) pursuant to RCW 42.30.140(4)(a)]
Page 11

Items Added by Revision

Other Business

Adjournment

COUNCIL PUBLIC WORKS & HEALTH COMMITTEE
9:35 A.M. TUESDAY, November 9, 2021 (ADJOURNS BY 10:05 A.M.)
Virtual Meeting

Call To Order

Roll Call

Announcements

Individuals who require special assistance to participate in the Council’s meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

Special Presentation

1. AB2021-553 Presentation from the Whatcom Mountain Bike Coalition on trail maintenance and the possibility of allowing for limited trail construction during seasonal closures
Page 12

Items Added by Revision

Other Business

Adjournment

COUNCIL CRIMINAL JUSTICE AND PUBLIC SAFETY COMMITTEE
10:10 A.M. TUESDAY, November 9, 2021 (ADJOURNS BY 10:30 A.M.)
Virtual Meeting

Call To Order

Roll Call

Announcements

Individuals who require special assistance to participate in the Council's meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

Special Presentation

1. AB2021-624 Report from the Prosecuting Attorney's Office **Page 13**

Items Added by Revision

Other Business

Adjournment

COUNCIL FINANCE AND ADMINISTRATIVE SERVICES COMMITTEE
10:40 A.M. TUESDAY, November 9, 2021 (ADJOURNS BY 12:30 P.M.)
Virtual Meeting

Call To Order

Roll Call

Announcements

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Special Presentation

Committee Discussion

1. AB2021-639 Discussion of Supplemental Budget Request #3134 for the implementation of the 2022 Annual Construction Program
Pages 14 - 51

Committee Discussion and Recommendation to Council

1. AB2021-594 Ordinance amending Whatcom County Code Chapter 2.02 (County Council) to define absence and temporary disability
Pages 52 - 62
2. AB2021-599 Ordinance establishing the Ferry Fare Capital Surcharge Fund
Pages 63 - 64

3. AB2021-601 Ordinance amending the 2021 Whatcom County Budget, request no. 17, in the amount of \$4,967,500
Pages 65 - 76
4. AB2021-609 Ordinance amending Whatcom County Code Title 3 (Revenue and Finance), specifically Chapters 3.06 (Grants) and 3.08 (Purchasing System)
Pages 77 - 94
5. AB2021-613 Request authorization for the County Executive to enter into a contract between Whatcom County and Road2Home to operate the COVID Isolation and Quarantine Facility, in the amount of \$159,275
Pages 95 - 117
6. AB2021-616 Resolution adopting the Whatcom County Natural Hazards Mitigation Plan
Pages 118 - 1058
7. AB2021-631 Request authorization for the County Executive to enter into a contract between Whatcom County and Aristo Healthcare Services to provide staffing at the COVID Isolation and Quarantine Facility, in the estimated amount of \$200,000
Pages 1059 - 1088

Council "Consent Agenda" Items

1. AB2021-614 Request authorization for the County Executive to enter into a contract amendment between Whatcom County and Maul Foster & Alongi, Inc. to finalize the Comprehensive Solid and Hazardous Waste Management Plan update in the amount of \$20,000 for a total amended contract amount of \$133,000
Pages 1089 - 1098
2. AB2021-615 Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and City of Bellingham for partial funding of maintenance and operations of the Crisis Stabilization Center, in the amount of \$65,000
Pages 1099 - 1107
3. AB2021-642 Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and Point Roberts Park and Recreation District No. 1 for usage of the District's Community Center for senior programming, in the amount of \$1,000
Pages 1108 - 1116
4. AB2021-643 Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and City of Everson for use of building space at Everson City Hall for senior programming, in the amount of \$500
Pages 1117 - 1126
5. AB2021-649 Resolution approving a salary schedule and policies for Unrepresented Whatcom County employees effective January 1, 2022 through December 31, 2022
Pages 1127 - 1146
6. AB2021-653 Request authorization for the County Executive to enter into a three year interlocal agreement among Whatcom County and the Port of Bellingham and City of Bellingham to provide economic development services and complete special projects that promote beneficial outcomes for the parties, in the amount of \$2,084,322
Pages 1147 - 1157

Items Added by Revision

Other Business

Adjournment

COUNCIL PLANNING AND DEVELOPMENT COMMITTEE
1:30 P.M. TUESDAY, November 9, 2021 (ADJOURNS BY 2:45 P.M.)
Virtual Meeting

Call To Order

Roll Call

Announcements

Individuals who require special assistance to participate in the Council's meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

Special Presentation

1. AB2021-657 Presentation by City of Bellingham Planning and Community Development Department regarding regulations for detached accessory dwelling units (DADUs) and accessory dwelling units (ADUs)
Page 1158

Committee Discussion

1. AB2021-647 Discussion of amendments to the WCC regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066
Pages 1159 - 1186
2. AB2021-605 Discussion on proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options
Pages 1187 -1209
3. AB2021-548 Discussion and status update of proposed amendments to the Whatcom County Code regarding short-term rentals
Pages 1210 - 1224

Items Added by Revision

Other Business

Adjournment

**COUNCIL COMMITTEE OF THE WHOLE
2:50 P.M. TUESDAY, November 9, 2021 (ADJOURNS BY 4:45 P.M.)
Virtual Meeting**

Call To Order

Roll Call

Announcements

Individuals who require special assistance to participate in the Council's meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

Special Presentation

1. AB2021-651 Presentation from Health Department, Human Services Division staff to review interim shelter options over the winter season
Pages 1225 - 1229

Committee Discussion

1. AB2021-395 Discussion and periodic update of the Shoreline Management Program
Pages 1230 - 1259
2. AB2021-656 Discussion of proposed options for financial assistance to Point Roberts
Page 1260
3. AB2021-645 Discussion of the County Executive's recommended 2022 Biennium Budget Adjustments
Pages 1261 - 1276

Committee Discussion and Recommendation to Council

1. AB2021-612 Discussion and request for motion regarding County Council meeting broadcast on Bellingham public access television (BTV) and streaming on YouTube
Page 1277

Items Added by Revision

Other Business

Adjournment

COUNTY COUNCIL

REGULAR COUNCIL MEETING

6:00 P.M. TUESDAY, November 9, 2021

Virtual Meeting

CALL TO ORDER

ROLL CALL

FLAG SALUTE

ANNOUNCEMENTS

The Council is currently holding all meetings remotely. View meeting schedules, agendas, minutes, videos, and archives at www.whatcom.legistar.com. For instructions on how to watch or participate in this meeting, please visit us at www.whatcomcounty.us/joinvirtualcouncil or contact the Council Office at 360.778.5010.

Individuals who require special assistance to participate in the Council's meetings are asked to contact the Council Office at 360.778.5010 at least 96 hours in advance.

The County is accepting applications from county residents to fill vacancies on several boards, commissions, and committees spanning a wide range of important local issues. For more information, visit the Boards and Commissions vacancies webpage on the County website at www.co.whatcom.wa.us, or call the County Council Office or County Executive's Office.

COUNTY EXECUTIVE'S REPORT

MINUTES CONSENT

1. MIN2021-082 Committee of the Whole for October 26, 2021 **Pages 1278 - 1282**
2. MIN2021-083 Regular County Council for October 26, 2021 **Pages 1283 - 1297**

OPEN SESSION (20 MINUTES)

To participate, please see instructions at www.whatcomcounty.us/joinvirtualcouncil or contact the Council Office at 360.778.5010. All speakers should state their name for the record and optionally include city of residence. Speakers will be given three minutes to address the Council. Council staff will keep track of time limits and inform speakers when they have thirty seconds left to conclude their comments.

CONSENT AGENDA

Items under this section of the agenda may be considered in a single motion. Councilmembers have received and studied background material on all items. Committee review has taken place on these items, as indicated. Any member of the public, administrative staff, or council may ask that an item be considered separately.

(From Council Finance and Administrative Services Committee)

1. AB2021-614 Request authorization for the County Executive to enter into a contract amendment between Whatcom County and Maul Foster & Alongi, Inc. to finalize the Comprehensive Solid and Hazardous Waste Management Plan update in the amount of \$20,000 for a total amended contract amount of \$133,000 **Pages 1089 - 1098**

2. AB2021-615 Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and City of Bellingham for partial funding of maintenance and operations of the Crisis Stabilization Center, in the amount of \$65,000
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Pages 1147 - 1157

OTHER ITEMS

(From Council Finance and Administrative Services Committee)

1. AB2021-594 Ordinance amending Whatcom County Code Chapter 2.02 (County Council) to define absence and temporary disability
Pages 52 - 62
2. AB2021-599 Ordinance establishing the Ferry Fare Capital Surcharge Fund
Pages 63 - 64
3. AB2021-601 Ordinance amending the 2021 Whatcom County Budget, request no. 17, in the amount of \$4,967,500
Pages 65 - 76
4. AB2021-609 Ordinance amending Whatcom County Code Title 3 (Revenue and Finance), specifically Chapters 3.06 (Grants) and 3.08 (Purchasing System)
Pages 77 - 94
5. AB2021-613 Request authorization for the County Executive to enter into a contract between Whatcom County and Road2Home to operate the COVID Isolation and Quarantine Facility, in the amount of \$159,275
Pages 95 - 117
6. AB2021-616 Resolution adopting the Whatcom County Natural Hazards Mitigation Plan
Pages 118 - 1058
7. AB2021-631 Request authorization for the County Executive to enter into a contract between Whatcom County and Aristo Healthcare Services to provide staffing at the COVID Isolation and Quarantine Facility, in the estimated amount of \$200,000
Pages 1059 - 1088

(From Council Committee of the Whole)

8. AB2021-612 Discussion and request for motion regarding County Council meeting broadcast on Bellingham public access television (BTV) and streaming on YouTube
Page 1277

(No Committee Assignment)

9. AB2021-625 Resolution approving the 2021 Whatcom County Climate Action Plan
Pages 1298 - 1504
10. AB2021-658 Resolution approving the naming of the Crisis Stabilization Facility as "The Anne Deacon Center for Hope"
Pages 1505 - 1506

EXECUTIVE APPOINTMENTS TO BOARDS, COMMISSIONS, AND COMMITTEES

Per Whatcom County Code 2.03.070(B), the council must confirm or reject executive appointments within 30 days of submission to the council. County code deems the appointee confirmed if council does not take action within this time.

1. AB2021-629 Request confirmation of the County Executive's appointments of Brian Hunter and Prakash Sundaresan to the Point Roberts Community Advisory Committee
Pages 1507 - 1515
2. AB2021-655 Request confirmation of the County Executive's appointment of Roger Kubalek to the Agricultural Advisory Committee
Pages 1516 - 1520

ITEMS ADDED BY REVISION

INTRODUCTION ITEMS

Council action will not be taken. The council may accept these items for introduction (no action) in a single motion. Changes, in terms of committee assignment for example, may be made at this time.

1. AB2021-627 Ordinance Amending the Project Budget for the E. Smith/Hannegan Road Intersection Improvements Fund, Request No. 2
Pages 1521 - 1527
2. AB2021-636 Ordinance Establishing the Birch Bay Lynden Rd & Blaine Rd Intersection Improvements Fund and Establishing a Project Based Budget for the Birch Bay Lynden Rd & Blaine Rd Intersection Improvements Fund; CRP #906001
Pages 1528 - 1534
3. AB2021-637 Ordinance Establishing the Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund and Establishing a Project Based Budget for the Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund; CRP #920003
Pages 1535 - 1541
4. AB2021-638 Ordinance Establishing the North Fork Road/Kenney Creek Fish Passage Fund and Establishing a Project Based Budget for the North Fork Road/Kenney Creek Fish Passage Fund; CRP #919007
Pages 1542 - 1548
5. AB2021-640 Ordinance amending the 2022 Whatcom County Budget, request no. 2, in the amount of \$12,007,450
Pages 1549 - 1557

6. AB2021-641 Ordinance Establishing the Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund and Establishing a Project Based Budget for the Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund; CRP #917004
Pages 1558 - 1564
7. AB2021-650 Ordinance amending Whatcom County Code (WCC) 3.08.060 (Purchasing System) to update the small public works roster process to award public works contracts under WCC 3.08.095 and to establish consulting services roster award process for architectural, engineering, and other professional services
Pages 1565 - 1573
8. AB2021-606 Ordinance adopting amendments to the Whatcom County Code Title 20, Zoning, to provide additional affordable housing options, including allowing and regulating tiny homes and allowing duplexes in planned unit developments
Pages 1574 - 1596
9. AB2021-623 Ordinance Authorizing the Levy of Taxes for Countywide Emergency Medical Purposes for 2022
Pages 1597 - 1598
10. AB2021-628 Ordinance amending the 2022 Whatcom County Budget, request no. 1, in the amount of \$50,655,096
Pages 1599 - 1866
11. AB2021-630 Ordinance Authorizing the Levy of Taxes for Conservation Futures Purposes for 2022
Pages 1867 - 1868
12. AB2021-632 Ordinance Authorizing the Levy of 2022 Property Taxes for County Road Purposes
Pages 1869 - 1870
13. AB2021-633 Ordinance Authorizing the Levy of Taxes for County and State Purposes in Whatcom County, Washington, for the Year of 2022
Pages 1871 - 1893
14. AB2021-634 Ordinance Limiting the 2022 General Fund Property Tax Levy
Pages 1894 - 1895
15. AB2021-648 Ordinance adopting amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066
Pages 1896 - 1923
16. AB2021-654 Resolution approving the Shoreline Management Program Periodic Update 2020
Pages 1924 - 2725
17. AB2021-622 Resolution adopting the 2022 budget for the Whatcom County Flood Control Zone District and Subzones (Council acting as the Flood Control Zone District Board of Supervisors)
Pages 2726 - 2743
18. AB2021-635 Resolution Authorizing the Levy of Taxes for the Whatcom County Flood Control Zone District for 2022
Pages 2744 - 2745

COMMITTEE REPORTS, OTHER ITEMS, AND COUNCILMEMBER UPDATES

ADJOURN



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-646

File ID:	AB2021-646	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	MKeeley@co.whatcom.wa.us		
Department:	Human Resources Division	File Type:	Discussion		
Assigned to:	Council Committee of the Whole-Executive Session	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: mkeeley@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Update on negotiations and planning strategy discussion regarding collective bargaining [Discussion of this item may take place in executive session (closed to the public) pursuant to RCW 42.30.140(4)(a)]

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Strategy planning discussion and positions to be taken during collective bargaining per RCW 42.30.140(4)(a)

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-553

File ID:	AB2021-553	Version:	2	Status:	Agenda Ready
File Created:	09/16/2021	Entered by:	MRouse@co.whatcom.wa.us		
Department:	Council Office	File Type:	Presentation		
Assigned to:	Council Public Works & Health Committee			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: dbrown@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Presentation from the Whatcom Mountain Bike Coalition on trail maintenance and the possibility of allowing for limited trail construction during seasonal closures

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Presentation from the Whatcom Mountain Bike Coalition on trail maintenance and the possibility of allowing for limited trail construction during seasonal closures

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-624

File ID:	AB2021-624	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	AReynold@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Report		
Assigned to:	Council Criminal Justice and Public Safety Committee				Final Action:
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: erichey@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Report from the Prosecuting Attorney's Office

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Prosecuting Attorney's Annual Report to Council

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-639

File ID:	AB2021-639	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	RMcconne@co.whatcom.wa.us		
Department:	Public Works Department	File Type:	Discussion		
Assigned to:	Council Finance and Administrative Services Committee			Final Action:	
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: sdraper@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion of Supplemental Budget Request #3134 for the implementation of the 2022 Annual Construction Program

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached memo

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Report, Proposed Ordinance N. Fork Rd/Kenney Cr. Fish Passage, Proposed Ordinance BBL & Blaine Intersection, Proposed Ordinance Smith & Hannegan Intersection, Proposed Ordinance Goshen Road Bridge, Proposed Ordinance Jackson & Terrell Creek Bridge

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

**Jon Hutchings
DIRECTOR**



Randy Rydel

Financial Services Manager
322 N. Commercial Street, Suite 210
Bellingham, WA 98225-4042
Telephone: (360) 778-6217
www.whatcomcounty.us
RRydel@co.whatcom.wa.us

MEMORANDUM

To: The Honorable Satpal Singh Sidhu, Whatcom County Executive and
Honorable Members of the Whatcom County Council

Through: Jon Hutchings, Public Works Director *JH*

From: James P. Karcher, P.E., County Engineer *QPK*
Randy Rydel, Public Works Financial Services Manager *RR*

Date: October 28, 2021

Re: Supplemental Budget Request #3134 for the implementation of the 2022 Annual Construction Program

The attached Supplemental Budget Request #3537 grants expenditure authority for the capital budget associated with the approved 2022 Annual Construction Program (approved by Council 10/26/21). The Annual Construction Program has been summarized in the following schedule:

Total Approved 2022 Annual Construction Program	\$29,070,000
Project based budgets (less funding transfers in)	-14,925,000
Previously budgeted wage and benefits	<u>-1,137,550</u>
Remaining ACP Expenditure to be budgeted	\$12,007,450
 Current Budget Expenditure Request	
Prelim./Const. Engineering	\$1,647,450
Right of Way Acquisition	120,000
Contract and County Forces Construction	<u>7,150,000</u>
Capital Expenditure Request Total	\$8,917,450
 Transfers to fund Project Based Budgets (PBB)	
East Smith/Hannegan Rd Fund 382	\$1,015,000
Birch Bay Lynden Rd/Blaine Rd Fund	650,000
Jackson Rd/Terrell Creek Br 81 Fund	700,000
Goshen Rd/Anderson Creek Br 248 Fund	300,000
North Fork Rd/ Kenney Creek Fund	<u>425,000</u>
Transfer to PBB Total	\$3,090,000
 Remove Offsetting Federal/State Grant Funding	<u>-925,000</u>
 Net Change/SBR Total	\$11,082,450

Please contact Randy Rydel at extension 6217 with any questions.

Enclosures: Supplementary Budget Request #3537
Exhibit A – Budget Distribution Detail
Exhibit B – Annual Construction Program as Approved 10/26/2021

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3537

Fund 108

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

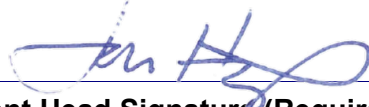
Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: 2022 Annual Road Construction Program

X



10/28/21

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.2026	Federal Aid Other	(\$20,000)
	4333.2026	Federal Aid Other	(\$885,000)
	4334.0372	Arterial Preservation	(\$20,000)
	6630.595110	Professional Services	\$1,351,450
	6630.595200	Professional Services	\$120,000
	7380.595810	Other Improvements	\$2,000,000
	7380.595300	Other Improvements	\$3,850,000
	7380.595510	Other Improvements	\$1,300,000
	8351	Operating Transfer Out	\$300,000
	8351	Operating Transfer Out	\$650,000
	8351	Operating Transfer Out	\$700,000
	8351.169114	Operating Transfer Out	\$296,000
	8351.382	Operating Transfer Out	\$1,015,000
	8351	Operating Transfer Out	\$425,000
	Request Total		\$11,082,450

1a. Description of request:

This supplemental follows council's approval of the 2022 Annual Road Construction Program. The requested funding will provide the expenditure authority to move forward with the approved Annual Construction Program.

The County Road Administration Board (CRAB) requires that an Annual Construction Program (ACP) be approved prior to approving a capital budget to fund the program. Council reviewed and approved the 2022 ACP at the October 26th council meeting. This request summarizes the budgetary impacts of the ACP and supplements the Road Fund's 2022 budget to account for the included capital projects.

This request also authorizes the transfer of \$1,875,000 into Project Based Funds for preliminary engineering funding of 4 multi-year projects, Birch Bay Lynden Rd & Blaine Rd Intersection Improvements, Jackson Road/Terrell Creek Bridge No. 81 Replacement, Goshen Road/Anderson Creek Bridge No. 248 Replacement, and the North Fork Road/Kenney Creek Fish Passage project. Additionally \$1,015,000 will be transferred into the East Smith Road & Hannegan Road Intersection Improvements project.

1b. Primary customers:

Users of Whatcom County roads

2. Problem to be solved:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3537

Fund 108

Cost Center

Originator: Randy Rydel

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund, State and Federal Grants

Exhibit A

Budget Distribution Detail

ACP Number	Cost Center	Expense	Account	Description	Revenue	Account	Description
4	919005	\$10,000	6630.595200	Right-of-Way			
4	919005	\$40,000	7380.595300	Construction			
5	921022	\$25,000	6630.595200	Right-of-Way			
5	921022	\$600,000	7380.595300	Construction			
12	910002	\$100,000	7380.595300	Construction			
13	916007	\$100,000	7380.595300	Construction			
15	921001	\$1,500,000	7380.595300	Construction			
17	915013	\$54,000	8351.169114	Transfer to Flood			
18	921003	\$37,000	8351.169114	Transfer to Flood			
19	919002	\$155,000	8351.169114	Transfer to Flood			
20	919001	\$50,000	8351.169114	Transfer to Flood			
24	922002	\$25,000	6630.595110	Engineering	(\$20,000)	4334.0372	Rural Arterial Program
27	922003	\$300,000	7380.595300	Construction			
28	921007	\$40,000	6630.595110	Engineering	(\$20,000)	4333.2026	Emergency Relief Funds
32	921020	\$100,000	7380.595300	Construction			
36	919006	\$10,000	6630.595200	Right-of-Way			
36	919006	\$550,000	7380.595510	Construction			
38	921008	\$20,000	6630.595200	Right-of-Way			
39	922007	\$5,000	6630.595200	Right-of-Way			
40	921021	\$500,000	7380.595510	Construction			
42	914015	\$2,000,000	7380.595810	Construction	(\$885,000)	4333.2026	Ferry Boat Discretionary Program
44	922008	\$250,000	7380.595510	Construction			
45	922009	\$50,000	6630.595200	Right-of-Way			
46	922010	\$270,000	7380.595300	Construction			
47	922011	\$100,000	7380.595300	Construction			
48	922012	\$50,000	7380.595300	Construction			
50	922014	\$90,000	7380.595300	Construction			
51	922015	\$150,000	7380.595300	Construction			
52	922016	\$300,000	7380.595300	Construction			
53	922017	\$150,000	7380.595300	Construction			
2	108920	\$1,015,000	8351.382	Transfer to PBB			
6	108920	\$650,000	8351	Transfer to PBB			
33	108920	\$700,000	8351	Transfer to PBB			
35	108920	\$300,000	8351	Transfer to PBB			
37	108920	\$425,000	8351	Transfer to PBB			
	108920	\$1,286,450	6630.595110	Engineering			
		\$12,007,450			(\$925,000)		
			\$11,082,450	Net Impact			

Exhibit B

Whatcom County
2022
Annual Construction Program
WAC 136-16

(A) **TOTAL CONSTRUCTION DONE** (total sum of column 13 + column 14): \$22,650,000.00
(B) **COMPUTED COUNTY FORCES LIMIT:** \$1,801,005.50
(C) **TOTAL COUNTY FORCES CONSTRUCTION** (total sum of column 14): \$145,000.00

Date of Environmental Assessment:
Date of Final Adoption:
Ordinance/Resolution Number:

(1)	(2)	(3)	(4)					(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information				Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds			Estimated Expenditures Dollars					
				Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (595.10)	Right of Way (595.20)	Construction		Grand Total (All 595)	
												Amount	Program Source			Contract	County Forces		
1	R1	CRP #907001 Birch Bay Drive & Pedestrian Facility from Lora Lane to Cedar Avenue	20010	Road Name: Birch Bay Drive From: Lora Lane To: Cedar Avenue	2.68	4.26	17	1.58	P&T FP DR Other	S	\$350,000			\$200,000		\$150,000	\$0	\$350,000	PBB
2	R2	CRP #914002 East Smith Road & Hannegan Road	55080	Road Name: East Smith Road From: East Smith Road To: Hannegan Road	1.86	2.06	07	0.40	3R IS Illm Safety	S	\$2,300,000	\$1,000,000.00	HSIP	\$400,000	\$150,000	\$3,750,000		\$4,300,000	PBB
			55110	Road Name: Hannegan Road From: East Smith Road To: Hannegan Road	1.86	2.06	07					\$1,000,000.00	STP(R)						
3	R3	CRP #917001 Marine Drive, Locust Avenue to Alderwood Avenue	12790	Road Name: Marine Drive From: Locust Avenue To: Alderwood Avenue	3.92	4.57	16	0.65	RC SW P&T Safety	S	\$1,041,000	\$2,509,000.00	STP(UL)	\$400,000	\$50,000	\$3,100,000		\$3,550,000	PBB
4	R4	CRP #919005 Samish Way/Galbraith Lane	44060	Road Name: Samish Way From: Samish Way To: Galbraith Lane	1.41	1.68	17	0.27	IS Other Safety Illm	S	\$60,000			\$10,000	\$10,000	\$30,000	\$10,000	\$60,000	
			44060	Road Name: Galbraith Lane From: 0 To: 0	0.00	0.00	09												
5	R5	CRP #921022 Marshall Hill Road Slide Repair/Culvert Replacement	89260	Road Name: Marshall Hill Road From: Marshall Hill Rd. To: Marshall Hill Rd.	0.60	0.70	09	0.10	3R Other	S	\$725,000			\$100,000	\$25,000	\$590,000	\$10,000	\$725,000	
6	R6	CRP #906001 Birch Bay Lynden Rd. & Blaine Rd.	21580	Road Name: Birch Bay Lynden Rd. From: Birch Bay Lynden Rd. To: Blaine Rd.	1.00	1.25	17	0.25	IS Illm SW Safety 3R	S	\$650,000			\$400,000	\$250,000			\$650,000	PBB
7	R7	CRP #918019 Smith Road & Northwest Drive	75080	Road Name: Smith Road From: 0 To: 0	1.40	1.60	16	0.40	RC IS Illm Safety	S	\$25,000			\$25,000				\$25,000	
			74050	Road Name: Northwest Drive From: 0 To: 0	3.50	3.70	16												
8	R8	CRP # 920016 Chief Martin Road, Cagney Road to Kwina Road	14110	Road Name: Chief Martin Road From: Cagney Road To: Kwina Road	0.00	2.50	06	2.50	3R Safety	S	\$100,000			\$100,000				\$100,000	
9	R9	CRP #914001 Slater Road & Northwest Drive	14760	Road Name: Slater Road From: Slater Road To: Northwest Drive	8.00	8.29	16	0.40	RC FP IS Illm Safety	S	\$5,000			\$5,000				\$5,000	
			74050	Road Name: Northwest Drive From: Slater Road To: Northwest Drive	2.27	2.38	16												
10	R10	CRP #922018 Birch Bay Drive Crosswalk	20010	Road Name: Birch Bay Drive From: Birch Bay Drive To: Birch Bay Drive	3.29	3.30	16	0.01	Safety Other	S	\$50,000			\$50,000				\$50,000	
11	R11	CRP #912017 Lummi Nation Transportation Projects						N/A			\$2,000,000			\$350,000	\$150,000	\$1,500,000		\$2,000,000	PBB
12	R12	CRP 910002 Point Roberts Transportation Improvements						N/A			\$150,000			\$50,000		\$90,000	\$10,000	\$150,000	
13	R13	CRP #916007 Hemmi Road Flood Mitigation	56320	Road Name: East Hemmi Road From: East Hemmi Road To: East Hemmi Road	2.30	2.60	08	0.30	2R DR Other	S	\$125,000			\$25,000		\$90,000	\$10,000	\$125,000	

Exhibit B

	(2)	(3)	(4)				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information				Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds		Estimated Expenditures Dollars					
				Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (\$95.10)	Right of Way (\$95.20)	Construction		Grand Total (All \$95)
												Amount	Program Source			Contract	County Forces	
14	R14	CRP #915014 Innis Creek Road	88850	Road Name: Innis Creek Road From: Innis Creek Road To: Innis Creek Road	2.45	2.65	09	0.20	2R DR Other Safety	S	\$10,000		\$10,000				\$10,000	
15	R15	CRP #921001 Birch Bay Drive, Jackson Road to Shintaffer Road	20010	Road Name: Birch Bay Drive From: Jackson Road To: Shintaffer Road	2.10	4.53	07	2.43	3R Safety	E	\$1,750,000		\$250,000		\$1,490,000	\$10,000	\$1,750,000	
16	R16	CRP #921002 Marine Drive II, Alderwood Avenue to Bridge No. 172	12790	Road Name: Marine Drive From: Alderwood Avenue To: Bridge No. 172	3.37	3.92	06	0.55	RC P&T	S	\$15,000		\$15,000				\$15,000	
17	R17	CRP #915013 Turkington Road/Jones Creek	89200	Road Name: Turkington Road From: Turkington Road To: Turkington Road	0.40	0.60	09	0.20	RC Other	S	\$54,000		\$54,000				\$54,000	
18	R18	CRP #921003 Truck Road, 2020 Flood Damage Repair	89200	Road Name: Truck Road From: Truck Road To: Truck Road	0.40	0.60	16	0.20	3R K	S	\$37,000		\$37,000				\$37,000	
19	R19	CRP 919002 Abbott Road/Levee Improvements	55560	Road Name: Abbott Road From: Abbott Road To: Abbott Road	1.70	1.90	09	0.20	RC Other	S	\$155,000		\$155,000				\$155,000	
20	R20	CRP #919001 Ferndale Road/Levee Improvements	12800	Road Name: Ferndale Road From: Ferndale Road To: Ferndale Road	2.50	3.82	08	1.32	Other	S	\$50,000		\$50,000				\$50,000	
21	R21	CRP #921004 Lake Louise, Austin Street to Lake Whatcom Boulevard	46010	Road Name: Lake Louise Road From: Austin Street To: Lake Whatcom Blvd.	0.00	4.06	18	4.06	3R Safety	E	\$25,000		\$25,000				\$25,000	
22	R22	CRP #921005 Austin Street, Lake Louise Street to Cable Street	46020	Road Name: Austin Street From: Lake Louise To: Cable Street	0.00	0.37	16	0.37	3R SW Safety	S	\$25,000		\$25,000				\$25,000	
23	R23	CRP #922001 Northwest Drive, Slater Rd. To Axton Rd.	73680	Road Name: Northwest Drive From: Slater Road To: Axton Road	2.38	4.65	16	2.27	3R	E	\$15,000		\$15,000				\$15,000	
24	R25	CRP #922002 Hampton Road, City of Lynden UAB to Van Buren	61700	Road Name: Hampton Road From: City of Lynden UAB To: Van Buren	0.14	4.79	06	4.65	3R	E	\$5,000	\$20,000.00	RAP	\$25,000			\$25,000	
25	R28	CRP #921019 Lakeway Drive Corridor Improvements	45690	Road Name: Lakeway Drive From: Lakeway Drive To: Lakeway Drive	0.00	1.39	16	1.39	Other P&T Safety	E	\$50,000		\$50,000				\$50,000	
26	R29	CRP #908011 Lincoln Road/Harborview Road to Blaine Road	26190	Road Name: Lincoln Road From: Harborview Road To: Blaine Road	0.00	1.00	18	1.00	RC NEW Other	S	\$5,000		\$5,000				\$5,000	
27	R31	CRP #922003 Small Area Paving						N/A	3R 2R	E	\$350,000		\$50,000		\$290,000	\$10,000	\$350,000	
28	R34	CRP #921007 South Pass Road	66040	Road Name: South Pass Road From: South Pass Road To: South Pass Road	3.50	3.65	16	0.15	2R Safety	E	\$20,000	\$20,000.00	ER	\$40,000			\$40,000	
29	R36	CRP #922004 Birch Bay Drive/Lora Lane Culvert Replacement	20010	Road Name: Birch Bay Drive From: Birch Bay Drive To: Lora Lane	2.68	2.69	17	0.01	DR	S	\$30,000		\$30,000				\$30,000	
30	R37	CRP #922005 Birch Bay Lynden Rd/Kickerville Rd.	21580	Road Name: Birch Bay Lynden Rd. From: Birch Bay Lynden Rd. To: Kickerville Rd.	1.89	2.09	07	0.40	IS 3R Safety	S	\$5,000		\$5,000				\$5,000	
			21850	Road Name: Kickerville Rd. From: Kickerville Rd. To: Birch Bay Lynden Rd.	5.43	5.63	08											
31	R38	CRP #922006 Corridor Intersection Alts Analysis						N/A	IS	S	\$5,000		\$5,000				\$5,000	
32	R39	CRP #921020 Deer Trail Slide Damage Repair	26350	Road Name: Deer Trail From: Deer Trail To: Deer Trail	0.35	0.91	09	0.56	Other	S	\$130,000		\$30,000		\$90,000	\$10,000	\$130,000	
33	B2	CRP #917004 Jackson Road/Terrell Creek Bridge No. 81	21950	Road Name: Jackson Road From: Jackson Road To: Jackson Road	0.00	0.10	18	0.10	Br	S	\$250,000		\$200,000	\$50,000			\$250,000	
34	B4	CRP #913006 North Lake Samish/Bridge No. 107	84190	Road Name: North Lake Samish From: North Lake Samish To: North Lake Samish	0.01	0.11	08	0.10	Br P&T	S	\$25,000	\$7,400,000.00	BR	\$425,000		\$7,000,000		\$7,425,000

PBB

PBB

Exhibit B

Annual B																			
	(2)	(3)	(4)					(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road Segment Information					Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds			Estimated Expenditures Dollars					
			Road #	Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (595.10)	Right of Way (595.20)	Construction		Grand Total (All 595)	
												Amount	Program Source			Contract	County Forces		
35	B5	CRP #920003 Goshen Road/Anderson Creek Bridge No. 248	56140	Road Name: Goshen Road From: Goshen Road To: Goshen Road	0.56	0.76	08	0.20	Br	S	\$20,000	\$200,000.00	BR	\$200,000	\$20,000			\$220,000	PBB
36	B10	CRP #919006 Mosquito Lake Road/Hutchinson Creek Tributary	84190	Road Name: Mosquito Lake Road From: Mosquito Lake Road To: Mosquito Lake Road	3.10	3.20	08	0.10	FP	S	\$610,000			\$50,000	\$10,000	\$535,000	\$15,000	\$610,000	
37	B11	CRP #919007 North Fork Road/Kenney Creek	89510	Road Name: North Fork Road From: North Fork Road To: North Fork Road	1.00	1.10	09	0.10	FP	S	\$70,000	\$200,000.00	FBRB	\$250,000	\$20,000			\$270,000	PBB
38	B12	CRP #921008 Deal Road/Fish Passage	89300	Road Name: Deal Road From: Deal Road To: Deal Road	0.00	0.10	09	0.10	FP	S	\$95,000			\$75,000	\$20,000			\$95,000	
39	B13	CRP #922007 Fox Road/California Creek Fish Passage	22920	Road Name: Fox Road From: Fox Road To: Fox Road	1.07	1.17	09	0.10	FP	S	\$155,000			\$150,000	\$5,000			\$155,000	
40	B14	CRP #921021 Nulle Road/Friday Creek Bridge No. 106	41830	Road Name: Nulle Road From: Nulle Road To: Nulle Road	0.15	0.25	09	0.10	3R	S	\$600,000			\$100,000		\$490,000	\$10,000	\$600,000	
41	F1	CRP #919008 Replacement of Whatcom Chief & Terminal Modification						N/A	Ferry	E	\$649,000			\$649,000				\$649,000	
42	F2	CRP #914015 Lummi Island Breakwater Replacement						N/A	Ferry	E	\$1,265,000	\$885,000.00	FBP	\$150,000		\$2,000,000		\$2,150,000	
43	F3	CRP #919009 Relocation of Gooseberry Terminal						N/A	Ferry	E	\$50,000			\$50,000				\$50,000	
44	Y1	CRP #922008 Various Bridge Rehabilitation/Replacement						N/A	Br	S	\$300,000			\$50,000		\$250,000		\$300,000	
45	Y2	CRP #922009 Right of Way Acquisition						N/A		E	\$50,000				\$50,000			\$50,000	
46	Y3	CRP #922010 Unanticipated Site Improvements						N/A		E	\$300,000			\$30,000		\$260,000	\$10,000	\$300,000	
47	Y4	CRP #922011 Unanticipated Stormwater Quality Improvements						N/A		S	\$120,000			\$20,000		\$90,000	\$10,000	\$120,000	
48	Y5	CRP #922012 Unanticipated Non-motorized Transportation Improvements						N/A	SW P&T Safety	I	\$60,000			\$10,000		\$40,000	\$10,000	\$60,000	
49	Y6	CRP #922013 Fish Passage Projects						N/A	FP	S	\$50,000			\$50,000				\$50,000	
50	Y7	CRP #922014 Swift Creek Transportation Impacts						N/A			\$100,000			\$10,000		\$90,000		\$100,000	
51	Y8	CRP #922015 Railroad Crossing Improvements						N/A	Other 2R Safety	I	\$200,000			\$50,000		\$140,000	\$10,000	\$200,000	
52	Y9	CRP #922016 Beam Guardrail Replacements/Upgrades						N/A	Safety	I	\$350,000			\$50,000		\$290,000	\$10,000	\$350,000	
53	Y10	CRP #922017 ADA Barrier Removal						N/A	SW	E	\$200,000			\$50,000		\$150,000		\$200,000	
											\$15,836,000	\$13,234,000		\$5,610,000	\$810,000	\$22,505,000	\$145,000	\$29,070,000	

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE NORTH FORK ROAD/KENNEY CREEK FISH
PASSAGE FUND AND ESTABLISHING A PROJECT BASED BUDGET FOR THE
NORTH FORK ROAD/KENNEY CREEK FISH PASSAGE; CRP #919007**

WHEREAS, the North Fork Road/Kenney Creek Fish Passage project is item number B11 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 37 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$770,000 over multiple years; and

WHEREAS, Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the project, which are anticipated to be \$320,000; and

WHEREAS, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the construction effort; and

WHEREAS, the Brian Abbott Fish Barrier Removal Board has committed \$2,975,000 of state funding for the construction phase of this project, with a local cost share from the Road Fund; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled North Fork Road/Kenney Creek Fish Passage Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the North
2 Fork Road/Kenney Creek Fish Passage Fund is approved as described in Exhibit A
3 with an initial project budget of \$425,000.
4

5 **ADOPTED** this _____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10 _____
11 Dana Brown-Davis, Clerk of the Council
12

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:

() Approved () Denied

14 _____
15 Approved Via Email-CQ/RM

16 Christopher Quinn
17 Civil Deputy Prosecutor
18

Satpal Sidhu, County Executive
Date Signed:_____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **North Fork Road/Kenney Creek Fish Passage**

Project Codes: **CRP No. 919007**

Project Based Budget Request: **Initial Request**

Duration Requested: **3 yrs (2021, 2022, 2023)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$300,000
595110	Contingency for Project	\$105,000
595200	Right of Way	\$20,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
TOTAL		<u><u>\$425,000</u></u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$425,000
4334	State FBRB Funds	\$0
		\$0
TOTAL		<u><u>\$425,000</u></u>

* Funds committed, but not yet obligated

*FBRB = Fish Barrier Removal Board

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3536

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: North Fork Rd/Kenney Cr Fish Passage; CRP #919007

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6000	Expenditures	\$105,000
	6110.595110	Regular Salaries & Wages	\$43,000
	6290.595110	Applied Benefits	\$32,000
	6630.595110	Professional Services	\$225,000
	7320.595200	Land	\$20,000
	8301.108	Operating Transfer In	(\$425,000)
	Request Total		\$0

1a. Description of request:

The existing 5-foot diameter corrugated steel culvert which carries Kenney Creek under the North Fork Road has been identified as a barrier to fish passage and, considering habitat to be gained, is considered one of the highest priority barriers within the County road system. Washington State Fish Barrier Removal Board (FBRB) funding has been secured for the design and construction phases of this fish passage project. This project is listed as #B11 on the 2022-2027 Six-Year Transportation Improvement Program.

Project design, permitting and real estate began in 2019. Design work was completed in the summer of 2021. Whatcom County was awarded State FBRB funds for part of the 2021 design phase expenses and in the summer of 2021 Whatcom County was awarded \$2,975,000 in state FBRB funds for the construction phase of this project.

Construction of this project is scheduled for 2023.

1b. Primary customers:

2. Problem to be solved:

This project will restore full fish passage at an existing poorly functioning fishway and culvert where Kenney Creek crosses under North Fork Road approximately 1-mile north of Mosquito Lake Road with a new 110-ft concrete bridge

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3536

Fund

Cost Center

Originator: Randy Rydel

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Fish Barrier Removal funding of \$2,975,000 from the State with the remaining coming from the Road Fund.

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT COSTS IN THOUSANDS OF DOLLARS										EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY			
							PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N	DATE COMPLETE MONTH / YEAR					
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS																		
09	B8	Flynn Road/Fishtrap Creek Bridge No. 51 31630 From MP 0.55 to 0.56 Replacement	09	P	0.10		PE RW CN Total	1/2025 	0 0 0 0		0 0 0 0		5 5 0 5	5 5 0 5	0 0 0 0	0 0 0 0	5 5 0 5	5 5 0 5	0 0 0 0			Yes								
09	B9	Salakanum Wy/Anderson Crk Brdg No. 509 56050 from MP 0.4 to MP 0.5 Replacement	09	P	0.10		PE RW CN Total	1/2025 	0 0 0 0		0 0 0 0		5 5 0 5	5 5 0 5	0 0 0 0	0 0 0 0	5 5 0 5	5 5 0 5	0 0 0 0			Yes								
08	B10	Mosquito Lake Rd/ Hutchinson Crk Tributary 84190 from MP 3.10 to MP 3.20 Fish Passage	06 07	S	0.10	P C T	PE RW CN Total	1/2022 1/2022 1/2022 	0 0 0 0		0 0 0 0		50 10 550 610	50 10 550 610	50 10 550 610	0 0 0 0	50 10 550 610	50 10 550 610	0 0 0 0	50 10 550 610		Yes								
09	B11	North Fork Road/Kenney Creek 89510 from MP 1.0 to 1.10 Fish Passage	06 08	S	0.10	P C T	PE RW CN Total	1/2022 1/2022 1/2023 	0 0 0 0	FBRB	625 20 2550 3175		125 20 450 595	750 20 3,000 3,770	250 20 3,000 270	500 0 3,000 3,500	0 0 0 0	750 20 3,000 3,770	625 0 2,550 3,175	125 20 450 595	CE	Yes								
09	B12	Deal Road 89300 from MP 0.0 to 0.10 Fish Passage	03 06	P		P C T	PE RW CN Total	1/2022 1/2022 	0 0 0 0				75 20 0 95	75 20 0 95	75 20 0 95	0 0 0 0	75 20 0 95	75 20 0 95	0 0 0 0	75 20 0 95										
	B13	Fox Road/California Creek 22920 at MP 1.07 to 1.17 Fish Passage	03 06	P	0.10		PE RW CN Total	1/2022 1/2022 	0 0 0 0				400 25 0 425	400 25 0 425	150 5 0 155	150 10 0 160	100 10 0 110	0 0 0 0	400 25 0 425	0 0 0 0	400 25 0 425	Yes								
	B14	Nulle Road/Friday Creek Bridge No. 106 41830 at MP 0.15 to 0.25 Rehabilitation	03 06	P	0.10		PE RW CN Total	1/2022 5/2022 	0 0 0 0				100 0 500 600	100 0 500 600	100 0 500 600	0 0 0 0	0 0 0 0	100 0 500 600	0 0 0 0	100 0 500 600										

Ferry Capital Construction

00	F1	Replacement of Whatcom Chief & Terminal Modification New Ferry and Terminal Modifications	06	P			PE RW CN Total	1/2022 1/2024		0 0 0 0				1,312 0 10,067 11,379	2,206 0 31,171 33,379	649 0 10,067 11,379	1,076 0 9,168 9,555	387 0 22,003 22,099	0 0 31,171 33,379	896 0 21,104 22,000	1,312 0 10,067 11,379			No
00	F2	Lummi Island Breakwater Replacement Terminal Modifications	06	S	0.10		PE RW CN Total	1/2022 7/2022		0 0 885 885				150 0 1,115 1,265	150 0 2,000 2,150	150 2,000 2,150 2,150	0 0 0 0	0 0 0 0	150 2,000 2,150 2,150	0 885 885 885	150 1,115 1,265 1,265		CE	No
00	F3	Relocation of Gooseberry Terminal	06	P			PE RW CN Total	1/2022		0 0 0 0				150 0 0 150	150 0 0 150	50 0 0 50	50 0 0 50	50 0 0 50	0 0 0 0	150 0 0 150	0 0 0 0	150 0 0 150		Yes

Yearly Capital Construction

00	Y1	Various Bridges Rehabilitation/Replacement As prioritized	09 10	S			PE RW CN Total	1/2022 1/2022		0 0 0 0				300 0 1,500 1,800	300 0 1,500 1,800	50 250 250 300	50 250 250 300	50 750 750 900	150 1,500 1,500 1,800	0 0 0 0	300 1,500 1,500 1,800			Yes
----	----	--	----------	---	--	--	-------------------------	------------------	--	------------------	--	--	--	----------------------------	----------------------------	-------------------------	-------------------------	-------------------------	--------------------------------	------------------	--------------------------------	--	--	-----

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE BIRCH BAY LYNDEN RD. & BLAINE RD.
INTERSECTION IMPROVEMENTS FUND AND ESTABLISHING A PROJECT BASED BUDGET
FOR THE BIRCH BAY LYNDEN RD. & BLAINE RD. INTERSECTION IMPROVEMENTS
FUND; CRP #906001**

WHEREAS, the Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements project is item number R6 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 6 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$1,450,000 over multiple years; and

WHEREAS, the Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, since preparation of the STIP, professional consulting has recommended a smaller, lower cost roundabout without affecting Level of Service; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the smaller project, which are anticipated to be \$650,000; and

WHEREAS, funding for this phase of the project will come from the Road Fund; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

BE IT FURTHER ORDAINED by the Whatcom County Council that the Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements Fund is approved as described in Exhibit A with an initial project budget of \$650,000.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

APPROVED AS TO FORM:

() Approved () Denied

Approved Via Email-CQ/RM

Christopher Quinn
Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed: _____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Birch Bay Lynden Rd & Blaine Rd (SR-548) I**

Project Codes: **CRP No. 906001**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$400,000
595200	Right of Way	\$250,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0

TOTAL \$650,000

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$650,000
4333	Federal STBG Funds (Reimbursement for construction)*	\$0
4333	Federal HSIP Funds (Reimbursement for construction)*	\$0

TOTAL \$650,000

* Funds committed, but not yet obligated

*HSIP = Highway Safety Improvement Program

*STBG = Surface Transportation Block Grant

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3533

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: Birch Bay Lynden, Blaine Rd; CRP 906001

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110.595110	Regular Salaries & Wages	\$57,000
	6290.595110	Applied Benefits	\$43,000
	6630.595110	Professional Services	\$300,000
	6630.595200	Professional Services	\$75,000
	7320.595200	Land	\$175,000
	8301.108	Operating Transfer In	(\$650,000)
	Request Total		\$0

1a. Description of request:

This project is located 4.6 miles south of Blaine, at the corners common to Sections 19, 20, 29, and 30, T40N, R1E. Intersection improvements being considered are a roundabout or a signal. This is a joint project with the Washington State Department of Transportation; however, it is unlikely that they will participate as a funding source. This project is listed #R6 on the 2022-2027 Six-Year Transportation Improvement Program.

Survey work and Right-of-Way Plan has been started. Consultant contract completed to evaluate & decide on preferred design alternative, which was a roundabout. Applied for and received federal STBG funding of \$800K which is available in 2023-2024. Final design consultant selected, and proceeding with final design in late 2021. Additional grant funds will be looked for through other sources.

Construction proposed for 2024

This request is to provide the funding needed to establish a project based budget for the preliminary engineering and right-of-way needs to design this project.

1b. Primary customers:

All road users who travel on the Birch Bay Lynden and Blaine Road corridors.

2. Problem to be solved:

The main purpose of the intersection improvements is to improve vehicle operations and increase safety for both vehicle drivers and pedestrians.

3a. Options / Advantages:

3b. Cost savings:

Potential costs savings are realized by an improved level of service for the motoring public and potential decrease in motor vehicle accidents.

4a. Outcomes:

This project will provide a more efficient and safer intersection at the Birch Bay Lynden and Blaine Road intersection.

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3533

Fund

Cost Center

Originator: Randy Rydel

4b. Measures:

The measures of success will be obligation of construction grant funds when Right-of-Way is certified and environmental permits are signed off by FHWA and WSDOT.

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

WSDOT coordination is necessary due the the multijurisdictional nature of this intersection.

6. Funding Source:

The Road Fund will fund the design and build with support from grants.

Surface Transportation Block Grant funds are expected for this project in 2023-2024.

FUNG. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE						FEDERALLY FUNDED PROJECTS ONLY			
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N DATE COMPLETE MONTH / YEAR	
							PROJECT PHASE	MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE													STATE FUNDS
17	R1	Birch Bay Drive & Pedestrian Facility 20010 from Lora Lane to Cedar Avenue Pedestrian & Non-motorized Enhancements	12053206	S	1.58	T P C W S	PE RW CN Total	1/2022 1/2022	0 0	0 0	0 0	0 0	300 150 450	300 150 450	200 150 350	90 0 90	10 0 10	0 0 0	300 150 450	0 0 0	300 150 450	CE	No 5/2019	
07	R2	East Smith Road & Hannegan Road 55080 / 55110 Intersection Improvements	060712	S	0.40	C G P T	PE RW CN Total	1/2022 1/2022 5/2022	0 0 ST/HSIP	0 0 2,000	0 0 2,000	0 0 0	400 150 1,750	400 150 3,750	400 150 3,750	0 0 0	0 0 0	0 0 0	400 150 3,750	0 0 2,000	400 150 1,750	CE	Yes	
16	R3	Marine Drive, Locust Avenue to Alderwood Avenue 12790 From MP 4.57 to MP 3.92 Reconstruction & bike/pedestrian facilities	03061232	S	0.65	C G P T W	PE RW CN Total	1/2022 1/2022 4/2022	0 0 STBG	0 0 2,509	0 0 2,509	0 0 0	400 50 591	400 50 3,100	400 50 3,100	0 0 0	0 0 0	0 0 0	400 50 3,100	0 0 2,509	400 50 591	CE	Yes	
17	R4	Samish Way & Galbraith Lane 44060 from MP 1.41. to 1.68 Pedestrian Crosswalk Coordination with the City of Bellingham Parking Lot Development	061232	S	0.27	C G P T W	PE RW CN Total	1/2022 1/2022 1/2022	0 0 0	0 0 0	0 0 0	0 0 0	10 10 40	10 10 40	10 10 40	0 0 0	0 0 0	0 0 0	10 10 40	0 0 0	10 10 40		Yes	
09	R5	Marshall Hill Road Slide Rpr/Culvert Rpic 89260 from MP 0.60 to 0.70 Replace Culvert & Repair Slide Damage	0607	S	0.20	C P T	PE RW CN Total	1/2022 1/2022 6/2022	0 0 0	0 0 0	0 0 0	0 0 0	100 25 600	100 25 600	100 25 600	0 0 0	0 0 0	0 0 0	100 25 600	0 0 0	100 25 600		Yes	
17	R6	Birch Bay Lynden Rd. & Blaine Rd. 21580 from MP 1.00 to UAB MP 1.25 Intersection Improvements	060712	P	0.25	C G P T W	PE RW CN Total	1/2022 1/2023 5/2024	0 0 STBG	0 0 801	0 0 801	0 0 0	950 500 2,799	950 500 3,600	400 200 3,600	150 200 3,600	400 500 0	0 0 0	0 0 0	950 500 3,600	0 0 801	950 500 2,799	CE	Yes
16	R7	Smith Road & Northwest Drive 75080 / 74050 Intersection Improvements	030612	P	0.40	C G P T W	PE RW CN Total	1/2022 	0 0 0	0 0 0	0 0 0	0 0 0	35 0 0	35 0 0	25 0 0	5 0 0	5 0 0	0 0 0	35 0 0	0 0 0	35 0 0		Yes	
09	R8	Chief Martin Road, Cagey Road to Kwina Road 14110 from MP 0.00 to MP 2.50 Pavement Rehabilitation	050607	P	2.50	C P T	PE RW CN Total	1/2022 	0 0 0	0 0 0	0 0 0	0 0 0	100 0 0	100 0 0	100 0 0	0 0 0	0 0 0	0 0 0	100 0 0	0 0 0	100 0 0		No	
16	R9	Slater Road & Northwest Drive 14760/74050 Intersection Improvements with WSDOT as lead agency	030612	S	0.40	C G P T W	PE RW CN Total	1/2022 	0 0 0	0 0 0	0 0 0	0 0 0	15 0 0	15 0 0	5 0 0	5 0 0	5 0 0	0 0 0	15 0 0	0 0 0	15 0 0	CE	Yes	
17	R10	Birch Bay Drive Crosswalk 20010 from MP 3.29 to MP 3.30 New Crosswalk from Berm to Parks Facility	061232	S	0.10	C P T W	PE RW CN Total	1/2022 5/2024	0 0 0	0 0 0	0 0 0	0 0 0	195 300 495	195 300 495	50 300 495	70 0 70	75 300 375	0 0 0	195 300 495	0 0 0	195 300 495		No	
07	R11	Lummi Nation Transportation Projects Various locations on Reservation	1203060732	S			PE RW CN Total	1/2022 1/2022 6/2022	0 0 0	0 0 0	0 0 0	0 0 0	350 150 1,500	350 150 1,500	350 150 1,500	0 0 0	0 0 0	0 0 0	350 150 1,500	0 0 0	350 150 1,500		Yes	

ORDINANCE NO. _____

**ORDINANCE AMENDING THE PROJECT BUDGET FOR THE E.
SMITH/HANNEGAN ROAD INTERSECTION IMPROVEMENTS FUND,
REQUEST NO. 2**

WHEREAS, Ordinance No. 2018-057 established the E. Smith/Hannegan Road Intersection Improvements Fund in 2018 granting expenditure authority to initiate preliminary engineering for the multi-year project, and;

WHEREAS, previous phases of the project included preliminary engineering, design, permitting, property rights acquisition, initial construction and construction engineering services, and;

WHEREAS, it is now necessary to add to the project based budget to supplement for construction and property rights acquisition in order to continue with the project, and;

WHEREAS, the East Smith & Hannegan Road Intersection Improvements Project was confirmed on the Council approved 2022 Annual Construction Program and is item number 2 on the Council approved 2022-2027 Six Year Transportation Improvement Program (2022-2027 STIP), and;

WHEREAS, the original construction cost and property rights acquisition cost estimates have increased due to economic changes in market forces along with necessary design changes, and therefore the 2022-2027 STIP estimate of \$4.3 million is insufficient, and;

WHEREAS, the project previously secured \$2 million of outside funding commitments (\$1 million federal Highway Safety Improvement Program funds and \$1 million federal Surface Transportation Block Grant funds), as well as \$2,785,000 of local Road funding, and;

WHEREAS, additional Road funds of up to \$1.015 million, including contingency amounts, will be used to supplement the project's current funding;

1
2 **NOW, THEREFORE, BE IT ORDAINED** by the Whatcom County Council that
3 Ordinance No. 2018-057, associated with establishing a project based budget for
4 the E. Smith/Hannegan Rd Intersection Improvements Fund, is hereby amended,
5 effective January 1st, 2022, by adding an additional amount of \$1,015,000 of
6 expenditure authority to the project budget for a new current project budget
7 expenditure amount of \$5,800,000 as described in Exhibit "A"
8
9

10 **ADOPTED** this ____ day of _____, 2021.
11

12
13 ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

14
15
16 Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

17
18
19
20 APPROVED AS TO FORM:

WHATCOM COUNTY EXECUTIVE
WHATCOM COUNTY, WASHINGTON

21
22
23 Approved Via Email-CQ/RM

24 Christopher Quinn
25 Senior Civil Deputy Prosecuting Attorney

Satpal Singh Sidhu, County Executive

() Approved () Denied

26
27
28 Date Signed: _____
29
30

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

10/8/2021

AJT

Project Title: **E. Smith Road & Hannegan Road Intersection Improvements**

Project Codes: **CRP No. 914002; Cost Center 382100**

Project Based Budget Request: **No. 2**

Duration Requested: **4 yrs (2020, 2021, 2022, 2023)**

Budget Account	Project Activity	Current Approved Project Budget		Amended Project Budget Request		New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$750,000				\$750,000
595200	Right of Way	\$220,000		\$330,000		\$550,000
595300	Construction	\$3,365,000		\$635,000		\$4,000,000
595120	Construction Engineering (In-House & Consultant)	\$450,000		\$50,000		\$500,000
		TOTAL	\$4,785,000	\$1,015,000		\$5,800,000

Object Account	Project Funding	Current Approved Project Revenue		Amended Project Revenue Request		New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$2,785,000		\$1,015,000		\$3,800,000
4333	Federal STBG Funds (Reimbursement for construction)*	\$1,000,000				\$1,000,000
4333	Federal HSIP Funds (Reimbursement for construction)*	\$1,000,000				\$1,000,000
		TOTAL	\$4,785,000	\$1,015,000		\$5,800,000

* Funds committed, but not yet obligated

*HSIP = Highway Safety Improvement Program

*STBG = Surface Transportation Block Grant

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3538

Fund 382

Cost Center 382100

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: Fund 382 E. Smith/Hannegan Intersection Imp. Req 3

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630.595120	Professional Services	\$50,000
	6630.595200	Professional Services	\$50,000
	7320.595200	Land	\$280,000
	7380.595300	Other Improvements	\$635,000
	8301.108	Operating Transfer In	(\$1,015,000)
	Request Total		\$0

1a. Description of request:

The intersection of East Smith and Hannegan Roads is located in Sections 28, 29, 32 and 33, T39N, R3E. This project is listed #R2 on the 2022-2027 Six-Year Transportation Improvement Program and experienced delays due to the lack of left-turn channelization on Smith Road. Traffic counts and warrants have been completed. Additionally, an associated 'Alternatives Analysis' was performed by a traffic consultant in 2018. Construction is anticipated in 2022. This request provides the funding needed in the project based budget for the construction and construction engineering work related to this project.

1b. Primary customers:

All road users who travel on the Hannegan and Smith Road corridors.

2. Problem to be solved:

The main purpose of the intersection improvements is to improve vehicle operations and increase safety for vehicle drivers, bicyclists, and pedestrians.

3a. Options / Advantages:

The alternatives analysis completed in 2018 compared three alternatives for improvements to the intersection. The three alternatives were an upgraded traffic signal with protected left turn movements, a single-lane roundabout, and a double-lane roundabout. The double-lane roundabout provided the highest level of vehicle operations for a twenty year design life, while providing a much safer intersection than the existing signal or an upgraded signal.

3b. Cost savings:

Potential costs savings are realized by an improved level of service for the motoring public and potential decrease in motor vehicle accidents.

4a. Outcomes:

The approval of budget authority will allow for the completion of design, R/W acquisition, permitting, and construction of the chosen alternative

4b. Measures:

The measures of success will be obligation of construction grant funds of \$2 million when R/W is certified and environmental permits are signed off by FHWA and WSDOT.

5a. Other Departments/Agencies:

N/A

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3538

Fund 382

Cost Center 382100

Originator: Randy Rydel

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The construction contract and construction engineering work will be funded with Surface Transportation Block Grant (STBG) and Highway Safety Improvement Program funds. The remainder will be covered with local Road funds.

Current Funding:

Federal STBG: \$1,000,000

Federal HSIP: \$1,000,000

Road Funds: \$2,785,000

Proposed Additional Funding:

Road Funds: \$1,015,000

Total Project Budget: \$5,800,000

Six Year
Transportation
Improvement Program
2022-2027

FUNG. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY				
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FEDERAL FUNDS			STATE FUNDS		OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	RW REQ? Y/N DATE COMPLETE MONTH / YEAR					
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS																	
Road Capital Construction																													
17	R1	Birch Bay Drive & Pedestrian Facility 20010 from Lora Lane to Cedar Avenue Pedestrian & Non-motorized Enhancements	12	S	1.58	T P C W S	PE RW CN Total	1/2022		0		0		300	300	200	90	10	0	300	0	300	CE	No 5/2019					
			1/2022						0		0		150	150	150	0	0	0	150	0	150								
07	R2	East Smith Road & Hannegan Road 55080 / 55110 Intersection Improvements	06	S	0.40	C G P T	PE RW CN Total	1/2022		0		0		400	400	400	0	0	0	400	0	400	CE	Yes					
			1/2022						0		0		150	150	150	0	0	0	150	0	150								
16	R3	Marine Drive, Locust Avenue to Alderwood Avenue 12790 From MP 4.57 to MP 3.92 Reconstruction & bike/pedestrian facilities	06	S	0.65	C G P T W	PE RW CN Total	5/2022	ST/HSIP	2,000		0		1,750	3,750	3,750	0	0	0	3,750	2,000	1,750	CE	Yes					
									2,000		0		2,300	4,300	4,300	0	0	0	4,300	2,000	2,300								
			1/2022						0		0		400	400	400	0	0	0	400	0	400								
17	R4	Samish Way & Galbraith Lane 44060 from MP 1.41. to 1.68 Pedestrian Crosswalk Coordination with the City of Bellingham Parking Lot Development	06	S	0.27	C G P T W	PE RW CN Total	1/2022		0		0		10	10	10	0	0	0	10	0	10		Yes					
			1/2022						0		0		40	40	40	0	0	0	40	0	40								
09	R5	Marshall Hill Road Slide Rpr/Culvert Rplc 89260 from MP 0.60 to 0.70 Replace Culvert & Repair Slide Damage	06	S	0.20	C P T	PE RW CN Total	1/2022		0		0		100	100	100	0	0	0	100	0	100		Yes					
			1/2022						0		0		25	25	25	0	0	0	25	0	25								
17	R6	Birch Bay Lynden Rd. & Blaine Rd. 21580 from MP 1.00 to UAB MP 1.25 Intersection Improvements	06	P	0.25	C G P T W	PE RW CN Total	1/2023		0		0		500	500	250	200	50	0	500	0	500	CE	Yes					
			5/2024					STBG	801		0		2,799	3,600	0	0	3,600	0	3,600										
16	R7	Smith Road & Northwest Drive 75080 / 74050 Intersection Improvements	03	P	0.40	C G P T W	PE RW CN Total			0		0		35	35	25	5	5	0	35	0	35		Yes					
									0		0		0		0		0		0		0								
09	R8	Chief Martin Road, Cagey Road to Kwina Road 14110 from MP 0.00 to MP 2.50 Pavement Rehabilitation	05	P	2.50	C P T	PE RW CN Total	1/2022		0		0		100	100	100	0	0	0	100	0	100		No					
									0		0		0		0		0		0		0								
16	R9	Slater Road & Northwest Drive 14760/74050 Intersection Improvements with WSDOT as lead agency	03	S	0.40	C G P T W	PE RW CN Total	1/2022		0		0		15	15	5	5	5	0	15	0	15	CE	Yes					
									0		0		0		0		0		0		0								
17	R10	Birch Bay Drive Crosswalk 20010 from MP 3.29 to MP 3.30	06	S	0.10	C P	PE RW	1/2022		0		0		195	195	50	70	75	0	195	0	195		No					
			12						0		0		0		0		0		0		0								

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE GOSHEN ROAD/ANDERSON CREEK
BRIDGE NO. 248 REPLACEMENT FUND AND ESTABLISHING A PROJECT
BASED BUDGET FOR THE GOSHEN ROAD/ANDERSON CREEK BRIDGE NO.
248 REPLACEMENT FUND; CRP #920003**

WHEREAS, the Goshen Road/Anderson Creek Bridge No. 248 Replacement project is item number B5 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 35 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$690,000 over multiple years; and

WHEREAS, Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the project, which are anticipated to be \$380,000; and

WHEREAS, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the construction effort; and

WHEREAS, funding for these phases of the project will be provided partially by federal funding from the Bridge Advisory Committee (BRAC) and partially by local Road funds; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the Goshen
2 Road/Anderson Creek Bridge No. 248 Replacement Fund is approved as described
3 in Exhibit A with an initial project budget of \$500,000.
4

5 **ADOPTED** this _____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10
11 _____
12 Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:

() Approved () Denied

14
15 Approved Via Email-CQ/RM

16 Christopher Quinn
17 Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed:_____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Goshen Road/Anderson Creek Bridge No. 248 Replacement**

Project Codes: **CRP No. 920003**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$340,000
595110	Contingency For Project	\$120,000
595200	Right of Way	\$40,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
		TOTAL <u><u>\$500,000</u></u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$300,000
4333	Federal BRAC Funds (Reimbursement for preliminary engineering)*	\$200,000
		\$0
		TOTAL <u><u>\$500,000</u></u>

* Funds committed, but not yet obligated

*BRAC = Bridge Advisory Committee

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3535

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: Goshen Road/Anderson Creek Br No. 248; CRP #920003

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.2021	Bridge Replacement (BR/BRR)	(\$200,000)
	6000	Expenditures	\$120,000
	6110.595110	Regular Salaries & Wages	\$43,000
	6290.595110	Applied Benefits	\$32,000
	6630.595110	Professional Services	\$265,000
	7320.595200	Land	\$40,000
	8301.108	Operating Transfer In	(\$300,000)
	Request Total		\$0

1a. Description of request:

This project is located south of Everson/Goshen in Section 19, T39N, R4E. This is a project to replace the existing 62-foot structurally deficient bridge. This project is listed #B5 on the 2022-2027 Six Year Transportation Improvement Program.

The existing Goshen Road Bridge No. 248 is considered structurally deficient and has deteriorating girders, pile caps and piles. It will be replaced with a new pre-stressed concrete girder bridge.

Preliminary design, permitting and real estate work began in 2020. Approximately \$5 million in Federal Bridge Replacement funds were secured in late 2019 for the preliminary engineering and construction phases of this project.

1b. Primary customers:

2. Problem to be solved:

The existing Goshen Road Bridge No. 248 is structurally deficient and has a reinforced concrete channel beam superstructure with a wood pile substructure. The existing approach roadway has 9-foot paved lanes and 2-foot gravel shoulders and will be replaced with a new pre-stressed concrete girder bridge and associated road approach work.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

Construction of the new bridge is expected to take place and conclude in 2024. The new bridge will no longer hold weight limit restrictions, opening this roadway back up to all legal traffic loads.

4b. Measures:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

<i>Supp'l ID # 3535</i>	Fund	Cost Center	Originator: Randy Rydel
-------------------------	-------------	--------------------	--------------------------------

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Whatcom County has been awarded \$5,024,950 in federal bridge replacement funds for this project.

Six Year Transportation Improvement Program
2022-2027

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY		
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	RW REQ? Y/N DATE COMPLETE MONTH / YEAR			
								FEDERAL FUNDS		STATE FUNDS																	
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS															
17	R36	Birch Bay Drive / Lora Lane Culvert Replc 20010 from MP2.68 to MP 2.69 Replace large culvert under BB Dr @ Lora Ln	03 06 07	P	0.01	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	40 0 0 40	40 0 0 40	30 0 0 30	0 0 0 0	0 0 0 0	10 0 0 10	40 0 0 40	0 0 0 0	40 0 0 40		Yes				
07	R37	Birch Bay Lynden Rd / Kickerville Rd 21580 from MP 1.89 to MP 2.09 21850 from MP 5.43 to MP 5.63 Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	15 0 0 15	15 0 0 15	5 0 0 5	5 0 0 5	5 0 0 5	0 0 0 0	15 0 0 15	0 0 0 0	15 0 0 15	CE	Yes				
07	R38	Corridor Intersection Alts Analysis (6 ea) BBL/Berthusen; BBL/Enterprise; Bay/Kicker- ville; Bay/V.View; Hann/Hemmi; Hann/VanWyck Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	360 0 0 360	360 0 0 360	5 0 0 5	355 0 0 355	0 0 0 0	0 0 0 0	360 0 0 360	0 0 0 0	360 0 0 360		No				
07	R39	Deer Trail Slide Damage Repair 25350 from MP .035 to MP .091 Repair slide damage	03	S	0.06	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	30 0 0 100	30 0 0 100	30 0 0 100	0 0 0 0	0 0 0 0	0 0 0 0	30 0 0 100	0 0 0 0	30 0 0 100		No				
							Total		0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	130 0 0 130	130 0 0 130	130 0 0 130	0 0 0 0	0 0 0 0	0 0 0 0	130 0 0 130	0 0 0 0	130 0 0 130						

Bridge and Fish Passage Capital Construction

16	B1	Marine Drive/Little Squalicum Bridge No.1 12790 From MP 5.24 to 5.34 Rehabilitation	10	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	0 0 0 20	20 0 0 20	0 0 0 0	20 0 0 20	CE	Yes
18	B2	Jackson Road/Terrell Creek/Bridge No. 81 21950 From MP 0.00 to MP 0.10 Replacement	09	P	0.10	P T C W	PE RW CN Total	1/2022 1/2022	0 0 0 0	0 0 0 0	0 0 0 0	350 100 0 450	350 100 0 450	200 50 0 250	150 50 0 200	0 0 0 0	0 0 0 0	350 100 0 450	No	No
08	B3	Mosquito Lk Rd/Porter Crk/Bridge No. 141 84190 From MP 9.55 to MP 9.65 Replacement	09	P	0.10	T C P	PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	No	No
08	B4	North Lake Samish Road/Bridge No. 107 44170 From MP 0.01 to MP 0.11 Replacement	09	S	0.10	P C T G	PE RW CN Total	1/2022 1/2022 1/2022	BR 0 0	500 0 8,500	0 0 0	25 0 8,500	525 0 8,500	100 0 7,000	0 0 1,500	0 0 0	0 0 8,500	25 0 8,500	CE	Yes
08	B5	Goshen Road/Anderson Crk/Bridge No. 248 56140 From MP 0.56 to MP 0.76 Replacement	09	S	0.10	P T	PE RW CN Total	1/2022 1/2022 1/2024	BR 0 0	650 0 3,300	0 0 3,950	650 40 40	200 20 3,300	100 20 0	350 20 3,300	0 0 0	0 0 3,300	650 40 3,950	CE	Yes
09	B6	Martin Rd/Anderson Crk/Bridge No. 250 56340 From MP 0.20 to 0.21 Replacement	09	P	0.10		PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	No	No
07	B7	Loomis Trail Rd/Bertrand Crk Trib Brdg No. 497 26502 From MP 3.84 to 3.94 Scour Mitigation	09	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	No	No

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE JACKSON ROAD/TERRELL CREEK BRIDGE
NO. 81 REPLACEMENT FUND AND ESTABLISHING A PROJECT BASED
BUDGET FOR THE JACKSON ROAD/TERRELL CREEK BRIDGE NO. 81
REPLACEMENT FUND; CRP #917004**

WHEREAS, the Jackson Road/Terrell Creek Bridge No. 81 Replacement project is item number B2 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 33 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$450,000 over multiple years; and

WHEREAS, it is anticipated that \$450,000 will move this project through the type, size, and location phase of preliminary design; and

WHEREAS, due to the project location in Birch Bay, which is an area of cultural significance and an urban setting, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the future phases of the project; and

WHEREAS, funding for this project is entirely Road Fund with other sources still being sought; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the Jackson
2 Road/Terrell Creek Bridge No. 81 Replacement Fund is approved as described in
3 Exhibit A with an initial project budget of \$700,000.
4

5 **ADOPTED** this ____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10 _____
11 Dana Brown-Davis, Clerk of the Council
12

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:

() Approved () Denied

14 _____
15 Approved Via Email-CQ/RM

16 Christopher Quinn
17 Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed:_____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Jackson Road / Terrell Creek - Bridge No. 81 Re**

Project Codes: **CRP No. 917004**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$450,000
595110	Contingency For Project	\$250,000
595200	Right of Way	\$0
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
TOTAL		<u><u>\$700,000</u></u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$700,000
4334		\$0
		\$0
TOTAL		<u><u>\$700,000</u></u>

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3534

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: Jackson Road/Terrell Creek Br No. 81; CRP 917004

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6000	Expenditures	\$250,000
	6110.595110	Regular Salaries & Wages	\$57,000
	6290.595110	Applied Benefits	\$43,000
	6630.595110	Professional Services	\$350,000
	8301.108	Operating Transfer In	(\$700,000)
	Request Total		\$0

1a. Description of request:

This project is located near Birch Bay in Section 31, T40N, R1W and is listed #B2 on the 2022-2027 Six Year Transportation Improvement Program.

The Jackson Road Bridge No. 81 over Terrell Creek, near the intersection of Jackson Road and Birch Bay Drive, was built in 1975 and is nearing the end of its useful service life. The existing 62-foot bridge span consists of two 31-foot channel beam girders supported on an intermediate pier with timber caps and piles. As this bridge is currently load restricted and classified as structurally deficient, Whatcom County Public Works has begun work on its replacement. Preliminary design work, including a type, size, and location study began in 2020. Design work and Right-of-Way will continue with anticipated construction in 2025.

This funding request is anticipated to cover the project needs through the type, size, and location study as well as a contingency amount that will carry through the project phases.

Outside funding is being pursued for the construction phase of this project.

1b. Primary customers:

The Birch Bay Community and visitors to the area.

2. Problem to be solved:

The existing 62-foot bridge span consists of two 31-foot channel beam girders supported on an intermediate pier with timber caps and piles. This bridge is at the end of its useful service life and is load restricted and classified as structurally deficient,

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3534

Fund

Cost Center

Originator: Randy Rydel

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Currently this project is entirely Road Fund funded, but outside funding sources are still being sought.

Six Year Transportation Improvement Program
2022-2027

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY	
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N DATE COMPLETE MONTH / YEAR		
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS														
17	R36	Birch Bay Drive / Lora Lane Culvert Replc 20010 from MP2.68 to MP 2.69 Replace large culvert under BB Dr @ Lora Ln	03 06 07	P	0.01	C P T	PE RW CN Total	1/2022			0 0 0 0			40 40 40 40	40 40 40 40	30 30 30 30	0 0 0 0	0 0 0 0	10 10 10 10	40 40 40 40	0 0 0 0	0 0 0 0	40 40 40 40		Yes	
07	R37	Birch Bay Lynden Rd / Kickerville Rd 21580 from MP 1.89 to MP 2.09 21850 from MP 5.43 to MP 5.63 Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022			0 0 0 0			15 15 15 15	15 15 15 15	5 5 5 5	5 5 5 5	5 5 5 5	0 0 0 0	15 15 15 15	0 0 0 0	0 0 0 0	15 15 15 15	CE	Yes	
07	R38	Corridor Intersection Alts Analysis (6 ea) BBL/Berthusen; BBL/Enterprise; Bay/Kicker- ville; Bay/V.View; Hann/Hemmi; Hann/VanWyck Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022			0 0 0 0			360 360 360 360	360 360 360 360	5 5 5 5	355 355 355 355	0 0 0 0	0 0 0 0	360 360 360 360	0 0 0 0	0 0 0 0	360 360 360 360		No	
07	R39	Deer Trail Slide Damage Repair 25350 from MP .035 to MP .091 Repair slide damage	03	S	0.06	C P T	PE RW CN Total	1/2022 1/2022			0 0 0 0			30 100 130	30 100 130	30 100 130	0 0 0	0 0 0	0 0 0	0 0 0	30 100 130	0 0 0	0 0 0	30 100 130		No
Bridge and Fish Passage Capital Construction																										

16	B1	Marine Drive/Little Squalicum Bridge No.1 12790 From MP 5.24 to 5.34 Rehabilitation	10	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	0 0 0 0	20 0 0 20	CE	Yes	
18	B2	Jackson Road/Terrell Creek/Bridge No. 81 21950 From MP 0.00 to MP 0.10 Replacement	09	P	0.10	P T C W	PE RW CN Total	1/2022 1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	350 100 0 450	350 100 0 450	200 50 0 250	150 50 0 200	0 0 0 0	0 0 0 0	350 100 0 450	0 0 0 0	0 0 0 0	350 100 0 450		No
08	B3	Mosquito Lk Rd/Porter Crk/Bridge No. 141 84190 From MP 9.55 to MP 9.65 Replacement	09	P	0.10	C P	PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5		No	
08	B4	North Lake Samish Road/Bridge No. 107 44170 From MP 0.01 to MP 0.11 Replacement	09	S	0.10	P C T G	PE RW CN Total	1/2022 1/2022 1/2022	BR 0 0 8,500 9,000	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	25 0 0 8,500 9,025	525 0 0 8,500 9,025	425 0 0 7,000 7,425	100 0 0 1,500 1,600	0 0 0 0 0	0 0 0 0 0	525 0 0 8,500 9,025	500 0 0 8,500 9,000	25 0 0 0 25	CE	Yes	
08	B5	Goshen Road/Anderson Crk/Bridge No. 248 56140 From MP 0.56 to MP 0.76 Replacement	09	S	0.10	P T	PE RW CN Total	1/2022 1/2022 1/2024	BR 0 0 3,300 3,950	650 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 40 40 3,300 3,990	650 0 40 3,300 3,990	200 20 20 3,300 3,990	100 20 20 3,300 3,650	350 0 0 0 0	0 0 0 0 0	650 40 40 3,300 3,990	650 0 40 3,300 3,950	0 40 40 3,300 40	0 40 40 3,300 3,950	40 40 40 3,300 3,950	CE	Yes
09	B6	Martin Rd/Anderson Crk/Bridge No. 250 56340 From MP 0.20 to 0.21 Replacement	09	P	0.10		PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5		No	
07	B7	Loomis Trail Rd/Bertrand Crk Trib Brdg No. 497 26502 From MP 3.84 to 3.94 Scour Mitigation	09	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5		No	



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-594

File ID:	AB2021-594	Version:	1	Status:	Substitute Introduced
File Created:	10/12/2021	Entered by:	CHalka@co.whatcom.wa.us		
Department:	Council Office	File Type:	Ordinance		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: chalka@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance amending Whatcom County Code Chapter 2.02 (County Council) to define absence and temporary disability

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Ordinance amending Whatcom County Code Chapter 2.02 (County Council) to define absence and temporary disability as it relates to the Executive Pro Tempore serving in place of the Executive

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council	SUBSTITUTE INTRODUCED	Council Committee of the Whole

Attachments: Proposed Ordinance, Proposed Ordinance - tracked changes, Substitute Ordinance for Oct 26 2021, Substitute Ordinance for Oct 26 2021 - tracked changes, Comparison of proposed and substitute ordinances

ORDINANCE NO. _____

**AMENDING WHATCOM COUNTY CODE CHAPTER 2.02 (COUNTY COUNCIL)
TO BETTER DEFINE ABSENCE AND TEMPORARY DISABILITY RELATING TO THE
EXECUTIVE PRO TEMPORE SERVING IN PLACE OF THE EXECUTIVE**

WHEREAS, The Whatcom County Home Rule Charter, Section 3.26 (Executive Pro Tempore) states:

The County Council, at its annual election, by majority vote, may designate one of its number as Executive Pro Tempore, or in lieu thereof, the Council may appoint any qualified person to serve as Executive Pro Tempore.

The Executive Pro Tempore shall hold office at the pleasure of the Council, and in case of the absence or temporary disability of the Executive, perform the duties of Executive except the Executive Pro Tempore shall not have power to appoint or remove any officer, or to veto any acts of the County Council.

WHEREAS, the term "absence" as it refers to the role of the Executive is commonly considered to be an inability for a person to be present to perform his or her duties due to circumstances such as illness, vacation, or other obligations; and

WHEREAS, due to advances in technology it is now possible for most people to remain in contact and conduct virtual meetings with ease from almost anywhere in the world, effectively eliminating many of the situations which would prevent the Executive from efficiently performing his or her duties while physically absent from the County; and

WHEREAS, the term "temporary disability" is commonly considered "a physical disability which hampers a person's ability to discharge their responsibilities for a short period of time"; and

WHEREAS, the term "temporary disability" is not defined in County Code nor does it adequately reflect current definitions of impairment due to the use of certain medications.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code Chapter 2.02 is hereby amended as shown in Exhibit A.

ADOPTED this _____ day of _____ 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() Approved () Denied

Karen Frakes (by email 10/19/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

2.02.070 Meetings – Annual reorganization and election of officers.

A. At its first committee of the whole or regular council meeting in January, the council shall schedule its annual reorganization. At this meeting, the council shall elect the chair, vice chair, the executive pro tempore and the members of all standing committees, each by an affirmative roll-call vote by a majority of the entire council, or by general consent when applicable. Prior to each reorganizational meeting, the council clerk or chairperson shall ask councilmembers to circulate to each other in writing their requests for committee assignments and other offices. No councilmember shall hold the position of chair more than two full consecutive years.

B. The chair of the council shall act as executive pro tempore in the absence of the regular executive pro tempore who was selected pursuant to the above procedure. Terms of office shall begin at the conclusion of the reorganizational meeting.

C. The executive pro tempore shall not assume the duties of Executive under Section 3.26 of the County Charter based on the physical “absence” of the Executive for periods of less than 30 days if the Executive remains available to the county staff and the county council by phone or video conferencing during normal business hours.

D. The term “temporary disability” shall include any period greater than 24 hours during which the executive is under the influence of any substance or medication, or is suffering from a medical condition which could reasonably be deemed sufficient to impair the Executive’s judgment to the degree that the executive would be unsafe to operate a motor vehicle under the laws of the State of Washington.

E. The Executive shall provide reasonable notice to the Deputy Executive and the Executive Pro Tempore of any anticipated absences or periods of inability to perform their duties.

F. In the temporary absence of the chairperson, the vice chairperson shall perform the duties and responsibilities of the chairperson. A temporary chairperson shall be elected should both the chairperson and vice chairperson be absent and shall serve during such absence. (Ord. 2017-081 Exh. A; Ord. 2010-044 Exh. A; Ord. 2008-004 Exh. A).

ORDINANCE NO. _____

**AMENDING WHATCOM COUNTY CODE CHAPTER 2.02 (COUNTY COUNCIL)
TO BETTER DEFINE ABSENCE AND TEMPORARY DISABILITY RELATING TO THE
EXECUTIVE PRO TEMPORE SERVING IN PLACE OF THE EXECUTIVE**

WHEREAS, The Whatcom County Home Rule Charter, Section 3.26 (Executive Pro Tempore) states:

The County Council, at its annual election, by majority vote, may designate one of its number as Executive Pro Tempore, or in lieu thereof, the Council may appoint any qualified person to serve as Executive Pro Tempore.

The Executive Pro Tempore shall hold office at the pleasure of the Council, and in case of the absence or temporary disability of the Executive, perform the duties of Executive except the Executive Pro Tempore shall not have power to appoint or remove any officer, or to veto any acts of the County Council.

WHEREAS, the term "absence" as it refers to the role of the Executive is commonly considered to be an inability for a person to be present to perform his or her duties due to circumstances such as illness, vacation, or other obligations; and

WHEREAS, due to advances in technology it is now possible for most people to remain in contact and conduct virtual meetings with ease from almost anywhere in the world, effectively eliminating many of the situations which would prevent the Executive from efficiently performing his or her duties while physically absent from the County; and

WHEREAS, the term "temporary disability" is commonly considered "a physical disability which hampers a person's ability to discharge their responsibilities for a short period of time"; and

WHEREAS, the term "temporary disability" is not defined in County Code nor does it adequately reflect current definitions of impairment due to the use of certain medications.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code Chapter 2.02 is hereby amended as shown in Exhibit A.

ADOPTED this _____ day of _____ 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() Approved () Denied

Karen Frakes (by email 10/19/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

2.02.070 Meetings – Annual reorganization and election of officers.

A. At its first committee of the whole or regular council meeting in January, the council shall schedule its annual reorganization. At this meeting, the council shall elect the chair, vice chair, the executive pro tempore and the members of all standing committees, each by an affirmative roll-call vote by a majority of the entire council, or by general consent when applicable. Prior to each reorganizational meeting, the council clerk or chairperson shall ask councilmembers to circulate to each other in writing their requests for committee assignments and other offices. No councilmember shall hold the position of chair more than two full consecutive years.

B. The chair of the council shall act as executive pro tempore in the absence of the regular executive pro tempore who was selected pursuant to the above procedure. Terms of office shall begin at the conclusion of the reorganizational meeting.

C. The executive pro tempore shall not assume the duties of Executive under Section 3.26 of the County Charter based on the physical "absence" of the Executive for periods of less than 30 days if the Executive remains available to the county staff and the county council by phone or video conferencing during normal business hours.

D. The term "temporary disability" shall include any period greater than 24 hours during which the executive is under the influence of any substance or medication, or is suffering from a medical condition which could reasonably be deemed sufficient to impair the Executive's judgment to the degree that the executive would be unsafe to operate a motor vehicle under the laws of the State of Washington.

E. The Executive shall provide reasonable notice to the Deputy Executive and the Executive Pro Tempore of any anticipated absences or periods of inability to perform their duties.

~~6F.~~ In the temporary absence of the chairperson, the vice chairperson shall perform the duties and responsibilities of the chairperson. A temporary chairperson shall be elected should both the chairperson and vice chairperson be absent and shall serve during such absence. (Ord. 2017-081 Exh. A; Ord. 2010-044 Exh. A; Ord. 2008-004 Exh. A).

ORDINANCE NO. _____

**AMENDING WHATCOM COUNTY CODE CHAPTER 2.02 (COUNTY COUNCIL)
TO BETTER DEFINE ABSENCE AND TEMPORARY DISABILITY RELATING TO THE
EXECUTIVE PRO TEMPORE SERVING IN PLACE OF THE EXECUTIVE**

WHEREAS, The Whatcom County Home Rule Charter, Section 3.26 (Executive Pro Tempore) states:

The County Council, at its annual election, by majority vote, may designate one of its number as Executive Pro Tempore, or in lieu thereof, the Council may appoint any qualified person to serve as Executive Pro Tempore.

The Executive Pro Tempore shall hold office at the pleasure of the Council, and in case of the absence or temporary disability of the Executive, perform the duties of Executive except the Executive Pro Tempore shall not have power to appoint or remove any officer, or to veto any acts of the County Council.

WHEREAS, the term "absence" as it refers to the role of the Executive is commonly considered to be an inability for a person to be present to perform his or her duties due to circumstances such as illness, vacation, or other obligations; and

WHEREAS, due to advances in technology it is now possible for most people to remain in contact and conduct virtual meetings with ease from almost anywhere in the world, effectively eliminating many of the situations which would prevent the Executive from efficiently performing his or her duties while physically absent from the County; and

WHEREAS, the term "temporary disability" is commonly considered "a physical disability which hampers a person's ability to discharge their responsibilities for a short period of time"; and

WHEREAS, the term "temporary disability" is not defined in County Code nor does it adequately reflect current definitions of impairment due to the use of certain medications.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code Chapter 2.02 is hereby amended as shown in Exhibit A.

ADOPTED this _____ day of _____ 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() Approved () Denied

Karen Frakes (by email 10/24/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

2.02.070 Meetings – Annual reorganization and election of officers.

A. At its first committee of the whole or regular council meeting in January, the council shall schedule its annual reorganization. At this meeting, the council shall elect the chair, vice chair, the executive pro tempore and the members of all standing committees, each by an affirmative roll-call vote by a majority of the entire council, or by general consent when applicable. Prior to each reorganizational meeting, the council clerk or chairperson shall ask councilmembers to circulate to each other in writing their requests for committee assignments and other offices. No councilmember shall hold the position of chair more than two full consecutive years.

B. The chair of the council shall act as executive pro tempore in the absence of the regular executive pro tempore who was selected pursuant to the above procedure. Terms of office shall begin at the conclusion of the reorganizational meeting.

C. The executive pro tempore shall not assume the duties of Executive under Section 3.26 of the County Charter based on the physical “absence” of the Executive for periods of less than 21 days if the Executive remains available to the county staff and the county council by phone or video conferencing during normal business hours.

D. The term “temporary disability” shall include any period greater than 24 hours during which the executive is under the influence of any substance or medication, or is suffering from a medical condition which could reasonably be deemed sufficient to impair the Executive’s judgment to the degree that the executive would be unsafe to operate a motor vehicle under the laws of the State of Washington. The term medical condition as used in this section is not intended to include physical disabilities which do not impair judgement such as blindness, deafness, paralysis or epilepsy etc.

E. The Executive shall immediately provide notice to the Deputy Executive and the Executive Pro Tempore of any anticipated absences or periods of inability to perform their duties.

F. In the temporary absence of the chairperson, the vice chairperson shall perform the duties and responsibilities of the chairperson. A temporary chairperson shall be elected should both the chairperson and vice chairperson be absent and shall serve during such absence. (Ord. 2017-081 Exh. A; Ord. 2010-044 Exh. A; Ord. 2008-004 Exh. A).

ORDINANCE NO. _____

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WHEREAS, the term "absence" as it refers to the role of the Executive is commonly considered to be an inability for a person to be present to perform his or her duties due to circumstances such as illness, vacation, or other obligations; and

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WHEREAS, the term "temporary disability" is commonly considered "a physical disability which hampers a person's ability to discharge their responsibilities for a short period of time"; and

WHEREAS, the term "temporary disability" is not defined in County Code nor does it adequately reflect current definitions of impairment due to the use of certain medications.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code Chapter 2.02 is hereby amended as shown in Exhibit A.

ADOPTED this _____ day of _____ 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() Approved () Denied

Karen Frakes (by email 10/24/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

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E. The Executive shall immediately provide notice to the Deputy Executive and the Executive Pro Tempore of any anticipated absences or periods of inability to perform their duties.

~~EF~~. In the temporary absence of the chairperson, the vice chairperson shall perform the duties and responsibilities of the chairperson. A temporary chairperson shall be elected should both the chairperson and vice chairperson be absent and shall serve during such absence. (Ord. 2017-081 Exh. A; Ord. 2010-044 Exh. A; Ord. 2008-004 Exh. A).

ORDINANCE NO. _____

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WHEREAS, the term “temporary disability” is commonly considered “a physical disability which hampers a person’s ability to discharge their responsibilities for a short period of time”; and

WHEREAS, the term “temporary disability” is not defined in County Code nor does it adequately reflect current definitions of impairment due to the use of certain medications.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code Chapter 2.02 is hereby amended as shown in Exhibit A.

ADOPTED this _____ day of _____ 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() Approved () Denied

Karen Frakes (by email 10/1924/2021))
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

2.02.070 Meetings – Annual reorganization and election of officers.

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Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-599

File ID:	AB2021-599	Version:	1	Status:	Introduced
File Created:	10/13/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance establishing the Ferry Fare Capital Surcharge Fund

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Requests establishment of a new special revenue fund to account for the \$1 per fare capital surcharge to be used exclusively for the construction of a new ferry vessel and improvements to the ferry terminals.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council	INTRODUCED	Council Finance and Administrative Services Committee

Attachments: Proposed Ordinance

ORDINANCE NO. _____
ORDINANCE ESTABLISHING THE FERRY FARE CAPITAL SURCHARGE FUND

WHEREAS, the Whatcom County Council adopted a Level of Service Ferry System Action Plan with Resolution 2018-026, and

WHEREAS, the Action Plan instructs the design and construction of a 34-car vessel with flexibility for future electric conversion, and terminal improvements, and

WHEREAS, on March 23, 2021 the Whatcom County Council unanimously approved a \$1.00 fare capital surcharge exclusively for the construction of a new ferry vessel and improvements to the ferry terminals with Ordinance 2021-012, and

WHEREAS, a new special revenue fund is necessary to properly account for this restricted revenue source,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established titled Ferry Fare Capital Surcharge Fund. This fund shall be used to account for the revenues and expenditures related to funding received in accordance with Ordinance 2021-012 Establishing a Fare Capital Surcharge for the Lummi Island Ferry System

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

APPROVED AS TO FORM:

() Approved () Denied

Approved by email/C Quinn/R Rydel
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-601

File ID:	AB2021-601	Version:	1	Status:	Introduced
File Created:	10/13/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance amending the 2021 Whatcom County Budget, request no. 17, in the amount of \$4,967,500

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Supplemental #17 requests funding from the Homeless Housing Fund:

1. To appropriate \$815,000 to fund increase to Commerce Housing and Essential Needs grant program.

From the American Rescue Plan Act Fund:

2. To appropriate \$1,000,000 to fund Laurel & Forest Street childcare facility.
3. To appropriate \$3,000,000 to fund Laurel & Forest Street affordable senior housing facility.

From Real Estate Excise Tax I Fund:

4. To appropriate \$120,500 to fund Courthouse 3rd Floor Judge's Chambers HVAC system.
5. To appropriate \$32,000 to fund Courthouse elevator water damage repairs.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council	INTRODUCED	Council Finance and Administrative Services Committee

Attachments: Proposed Ordinance, Summary, Supplemental Requests

**ORDINANCE NO.
AMENDMENT NO. 17 OF THE 2021 BUDGET**

WHEREAS, the 2021-2022 budget was adopted November 24, 2020; and,

WHEREAS, changing circumstances require modifications to the approved 2021-2022 budget;
and,

WHEREAS, the modifications to the budget have been assembled here for deliberation by the
Whatcom County Council,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that the 2021-2022
Whatcom County Budget Ordinance #2020-068 is hereby amended by adding the following additional
amounts to the 2021 budget included therein:

Fund	Expenditures	Revenues	Net Effect
Homeless Housing Fund	815,000	(815,000)	-
American Rescue Plan Act Fund	4,000,000	-	4,000,000
Real Estate Excise Tax I Fund	152,500	-	152,500
Total Supplemental	4,967,500	(815,000)	4,152,500

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Chair of Council

APPROVED AS TO FORM:

() Approved () Denied

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

WHATCOM COUNTY				
Summary of the 2021 Supplemental Budget Ordinance No. 17				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Homeless Housing Fund	To fund increase to Commerce Housing and Essential Needs grant program.	815,000	(815,000)	-
American Rescue Plan Act Fund				
Non Departmental	To fund Laurel & Forest Street childcare facility.	1,000,000	-	1,000,000
Non Departmental	To fund Laurel & Forest Street affordable senior housing facility.	3,000,000	-	3,000,000
Total American Rescue Plan Act Fund		4,000,000	-	4,000,000
Real Estate Excise Tax I Fund				
AS-Facilities	To fund Courthouse 3rd Floor Judge's Chambers HVAC system.	120,500	-	120,500
AS-Facilities	To fund Courthouse elevator water damage repairs.	32,000	-	32,000
Total Real Estate Excise Tax I Fund		152,500	-	152,500
Total Supplemental		4,967,500	(815,000)	4,152,500

Supplemental Budget Request

Health

Human Services

Suppl ID # 3523 **Fund** 122 **Cost Center** 122600 **Originator:** Ann Beck

Expenditure Type: One-Time **Year 1** 2021 **Add'l FTE** ☐ **Add'l Space** ☐ **Priority** 1

Name of Request: Commerce HEN Grant Increase

X

Einkaufman

10/11/21

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4334.0427	Homeless Grant Asst Program	(\$815,000)
	6610	Contractual Services	\$815,000
	Request Total		\$0

1a. Description of request:

We are requesting expenditure authority to utilize additional funding available from Washington State Department of Commerce to support housing and homeless programs. This supplemental increases the revenue and expense for this pass-through grant. The Housing and Essential Needs (HEN) grant allocation from Commerce covers the fiscal year of 7/1/21-6/30/22 and totals \$2,362,883. This request covers the remainder of the 2021 calendar year.

1b. Primary customers:

Those qualifying for the Housing and Essential Needs Program (HEN), which requires applicants be unable to work for at least 90 days due to a disability, and have zero income or receive Aged, Blind and Disabled cash benefits.

2. Problem to be solved:

Households who are eligible for this assistance do not have sufficient income to access or retain housing independently, and may need resources for essential needs.

3a. Options / Advantages:

Housing and essential needs such as hygiene and sanitation products are critical to supporting people whose income is not sufficient to access housing without assistance.

3b. Cost savings:

HEN provides state funding to counties to serve those at-risk of or experiencing homelessness, thereby saving local costs being used to meet the basic needs of eligible households.

4a. Outcomes:

It is expected that between 7/1/2021 – 6/30/2022, 350 HEN-eligible households will receive essential needs items and cleaning and move-in supplies; and 230 households will receive HEN rent and utility assistance.

4b. Measures:

- Number of HEN eligible households served each month and year to date
- Average amount of subsidy per HEN household
- Number of HEN eligible households defined
- System performance measures as set by the WA State Department of Commerce

5a. Other Departments/Agencies:

Opportunity Council administers HEN funding and the Department of Social and Health Services determines eligibility.

5b. Name the person in charge of implementation and what they are responsible for:

Barbara Johnson-Vinna, Housing Program Specialist in the Health Department

Supplemental Budget Request

Health**Human Services**

*Suppl ID # 3523***Fund 122****Cost Center 122600****Originator: Ann Beck****6. Funding Source:**

Washington State Department of Commerce, Housing and Essential Needs grant.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3524

Fund 138

Cost Center

Originator: Tawni Helms

Expenditure Type: One-Time

Year 1 2021

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: Laurel and Forest St Project - Childcare

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$1,000,000
	Request Total		\$1,000,000

1a. Description of request:

ARPA funding will be used to repurpose an existing property to develop the build out of a childcare facility that can serve up to 65 children. Whatcom County will contract with the Opportunity Council for the development of this project located at the Laurel and Forest Street. As a repurposed childcare facility it will be used to increase the capacity for desperately needed childcare services throughout Whatcom County. This project is located in the census tract near downtown Bellingham.

1b. Primary customers:

Whatcom County families in need of affordable child care.

2. Problem to be solved:

Childcare services are limited throughout Whatcom County. Childcare needs far outweigh the community's availability of affordable childcare opportunities in Whatcom County.

The COVID -19 Community Health Impact Assessment showed that 80% of Whatcom County child care providers closed temporarily during the pandemic. As a result, 74% of respondents showed an increased difficulty balancing work and caring for children leading to a direct impact on families' income, housing, mental health and more. Today, 67% of child care centers are at risk of closing and one in four childcare facilities remain closed. The amount of currently available child care for kids under age 5 will need to triple by the year 2025 in order to meet Whatcom County's anticipated child care needs. Kindergarten readiness for BIPOC students are consistently lower than other students in Whatcom County. Families unable to find affordable, quality childcare are often unable to return to work. Increasing the availability of childcare services for working families will encourage economic recovery in our community.

3a. Options / Advantages:

Whatcom County is committed to addressing the childcare crisis.

3b. Cost savings:

n/a

4a. Outcomes:

A 5,000 square foot facility accomodating 3 classrooms will provide up to 65 childcare spaces to families in need of childcare.

4b. Measures:

The Laurel and Forest Street property will be re-purposed as a child care facility and will begin serving Whatcom County families needing childcare services.

5a. Other Departments/Agencies:

Tuesday, October 12, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3524

Fund 138

Cost Center

Originator: Tawni Helms

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3525

Fund 138

Cost Center

Originator: Tawni Helms

Expenditure Type: One-Time

Year 1 2021

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: ARPA Laurel & Forest Project-Affordable Sr.Housing

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$3,000,000
	Request Total		\$3,000,000

1a. Description of request:

Whatcom County is committed to addressing the housing crisis through a multi-faceted approach. ARPA funding will be dedicated to fund the buildout and re-purposing of the property located at Laurel and Forest St. Whatcom County will work with community agencies to provide new affordable housing to seniors. Because the housing crisis has only been exacerbated by the COVID pandemic the need grows more urgent. Acquiring new affordable housing units will help support the effort to reduce homelessness in Whatcom County. This project is located in the census tract near downtown Bellingham.

1b. Primary customers:

Unhoused seniors and Whatcom County citizens.

2. Problem to be solved:

Whatcom County has a housing crisis. According to the COVID-19 Community Health Impact Assessment the lack of affordable housing is persistent and worsening. In June of 2021, 14% of Washington residents reported being behind on rent. That equates to 4,655 households in Whatcom County.

ARPA funding will be used to address this problem by developing and re-purposing a building into a new senior housing complex. This will afford unhoused seniors the opportunity to have consistent, stable and affordable housing. Mitigating the housing crisis through a multi-faceted approach will help to ensure the broad spectrum of housing needs are met.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

56 new affordable one-bedroom apartments will be made available to unhoused seniors.

4b. Measures:

The new affordable housing units will be filled with tenants.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Tuesday, October 12, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3521

Fund 326

Cost Center

Originator: Rob Ney

Expenditure Type: One-Time

Year 1

2021

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: Courthouse 3rd Fl Judges Chambers HVAC

X *R*

Department Head Signature (Required on Hard Copy Submission)

10/12/21

Date

Costs:	Object	Object Description	Amount Requested
	6190	Direct Billing Rate	\$2,500
	7060	Repairs & Maintenance	\$118,000
	Request Total		\$120,500

1a. Description of request:

There is one area in the Courthouse that does not have conditioned air. This 3rd floor area is only served by radiant boiler heaters, and does not have a fresh air alternative other than operable windows. Facilities would like to bring this portion of the courthouse into the existing HVAC system, providing fresh air, and filtered heating and cooling. This is even more important with COVID protocols on air exchanges.

The original 1993 plans for the Courthouse addition identified this portion of the Courthouse as a "future HVAC expansion" area. This effort would be consistent with that design call-out.

1b. Primary customers:

Staff working in this portion of the 3rd floor.

2. Problem to be solved:

The CDC has issued guidelines for best practices for HVAC in commercial buildings as it relates to the fight against COVID. This portion of the Courthouse does not have conditioned air, and therefore is not compliant with these recommendations. Facilities would like to extend conditioned/filtered air into this last remaining area.

3a. Options / Advantages:

Opening the windows is also an option in the winter for air exchanges, but not viable during the winter months.

The safety and security of our employees as well as the public within the Courthouse is paramount. Extending the HVAC system into this area of the Courthouse is a high priority.

3b. Cost savings:

There are not many options for cost saving for this improvement.

4a. Outcomes:

Facilities will contract with a local vendor for these repairs.

4b. Measures:

The improvements will be implemented within budget.

When improvements are installed and the HVAC system is extended.

5a. Other Departments/Agencies:

The impacts could only be considered advantageous. However there will be slight disruption to the tenants during the construction of these new improvements.
Superior Court.

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 12, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3521

Fund 326

Cost Center

Originator: Rob Ney

Rob Ney, Project & Operations Manager

6. Funding Source:

REET 1

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3514 Fund 326 Cost Center Originator: Rob Ney

Expenditure Type: One-Time Year 1 2021 Add'l FTE ☐ Add'l Space ☐ Priority 1

Name of Request: Elevator Water Damage Repairs

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7060	Repairs & Maintenance	\$32,000
	Request Total		\$32,000

1a. Description of request:

One of the main public elevators was damaged by a failure in the HVAC system, causing severe water damage to elevator Cab 4. This elevator cab is out of service, and will remain out of service, until this emergency repair can be made. Facilities Management has an existing maintenance contract with Eltec Elevator, however, unanticipated repair services are outside of the scope of the contract.

1b. Primary customers:

Any staff or citizen utilizing the Courthouse elevator conveyance system.

2. Problem to be solved:

A hydronic HVAC unit failed, spilling a substantial amount of water onto elevator Cab 4. This water damage shorted out major components of the elevator, causing Facilities and Eltec to tag out the elevator. This conveyance remains unusable until such time repairs can be made.

3a. Options / Advantages:

There are no other options but to repair the elevator.

The safety and security of our employees as well as the public within the Courthouse is paramount. The public elevators are highly used to gain access to the upper Court floors of the Courthouse.

3b. Cost savings:

There are not many options for cost saving for this repair

4a. Outcomes:

Facilities will implement the repairs as soon as possible utilizing existing repair and maintenance funds. However it is projected that this repair may result in a shortfall of funds towards the end of the year. Once approved, these funds would be placed back in the repair and maintenance budget.

4b. Measures:

The elevator will be repaired.

When improvements are installed and the elevator is back in service.

5a. Other Departments/Agencies:

The impacts could only be considered advantageous.

All County departments within the Courthouse would receive benefit for the improvements.

5b. Name the person in charge of implementation and what they are responsible for:

Rob Ney, Project & Operations Manager

6. Funding Source:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-609

File ID:	AB2021-609	Version:	1	Status:	Introduced
File Created:	10/19/2021	Entered by:			
Department:		File Type:	Ordinance		
Assigned to:	Council Finance and Administrative Services Committee				Final Action:
Agenda Date:	11/09/2021				Enactment #:

Primary Contact Email: chalka@co.whatcom.us

TITLE FOR AGENDA ITEM:

Ordinance amending Whatcom County Code Title 3 (Revenue and Finance), specifically Chapters 3.06 (Grants) and 3.08 (Purchasing System)

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Ordinance amending Whatcom County Code Title 3 (Revenue and Finance), specifically Chapters 3.06 (Grants) and 3.08 (Purchasing System) to incorporate new state legislation, remove the sunset clause, and revise parameters for council approval

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council	INTRODUCED	Council Finance and Administrative Services Committee

Attachments: Proposed Ordinance, Proposed Ordinance - tracked changes

PROPOSED BY: BROWNE

INTRODUCED: _____

ORDINANCE NO. _____

**AMENDING WHATCOM COUNTY CODE TITLE 3 REVENUE AND FINANCE,
SPECIFICALLY CHAPTERS 3.06 (GRANTS) AND 3.08 (PURCHASING SYSTEM)
TO INCORPORATE NEW STATE LEGISLATION, REMOVE SUNSET CLAUSE,
AND REVISE PARAMETERS FOR COUNCIL APPROVAL**

WHEREAS, Whatcom County residents entrust the County Council and Executive to procure goods responsibly, efficiently, and with transparency; and

WHEREAS, Whatcom County Council wishes to revise the purchasing code to provide greater transparency for the public while allowing for efficient purchasing processes; and

WHEREAS, Whatcom County Council adopted Ordinance 2014-047 setting forth requirements for grant application approvals in Chapter 3.06; and

WHEREAS, Whatcom County Council adopted Ordinance 2016-032 to achieve greater administrative efficiencies through clarifying purchasing processes and delivering timely and complete procurement information; and

WHEREAS, Whatcom County Council adopted Ordinance 2018-033 to extend the sunset clause date to December 31, 2021; and

WHEREAS, Whatcom County Council wishes to update the purchasing code to include new purchasing guidance from state law regarding advertisement requirements; and

WHEREAS, Whatcom County Council experienced results from revised approval thresholds and wants to make additional revisions and remove the sunset clause.

NOW, THEREFORE, BE IT ORDAINED, that the Whatcom County Code Chapters 3.06 and 3.08 shall hereby be amended as detailed in the attached Exhibit A.

ADOPTED this _____ day of _____, 2021.

ATTEST:

**WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON**

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

**WHATCOM COUNTY EXECUTIVE
WHATCOM COUNTY, WASHINGTON**

Karen Frakes (by email 10/19/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

() Approved () Denied

Date Signed: _____

EXHIBIT A

Chapter 3.06

GRANTS

Sections:

3.06.010 Approval by council

3.06.010 Approval by council.

A. All grants that propose county direct cost sharing in an amount exceeding \$20,000, or require additional personnel, must be approved by the council.

B. All Grants exceeding \$40,000 must be approved by the County Council.

C. All grants that have provisions other than compliance with state and federal regulations and funding and reporting on existing county programs must be approved by the council.

D. The requirements of this section shall not apply to emergencies declared by the county executive. (Ord. 2014-047 Exh. A; Ord. 84-109).

Chapter 3.08

PURCHASING SYSTEM

Sections:

3.08.010 Purpose.

3.08.020 Administration.

3.08.030 Authority and functions.

3.08.040 Price quotations.

3.08.050 Vendor lists.

3.08.060 Bids and proposals required.

3.08.070 Contractor's bond required for public works.

3.08.080 Labor and material claims.

3.08.090 Bid specifications, deposits and awards.

3.08.095 Small works roster contract award process.

3.08.100 Council approval required.

3.08.110 Unregistered or unlicensed contractors prohibited.

3.08.120 Joint purchasing.

3.08.125 Nondiscrimination.

3.08.130 Amendments to chapter.

3.08.140 Severability.

3.08.010 Purpose.

It shall be the purpose of this chapter to establish a purchasing system to work with all county departments, agencies, boards and commissions, and other operations of the county to ensure efficiency in procurement of supplies and equipment of the necessary quality at the lowest possible cost; to ensure compliance with purchasing statutes, regulations, policies and procedures; to ensure efficient utilization of county property, new and used; and to minimize employee time devoted to purchasing functions.

In addition, it is intended that the purchasing system be as transparent as possible, deliver timely and complete procurement information to prospective vendors, and report successful

1 bids, contracts and project expenditures to the public using the county's website. (Ord.
2 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord.
3 93-042 Exh. H).

4
5 3.08.020 Administration.

6 The director of the administrative services department shall have full authority and
7 responsibility for the operation and ongoing improvement of the purchasing system under
8 the direction of the county executive. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord.
9 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

10
11 3.08.030 Authority and functions.

12 A. The authority to recommend and implement administrative policies and procedures that
13 provide a comprehensive basis for purchasing functions shall fall under the purview of the
14 purchasing system.

15
16 B. The following responsibilities shall be coordinated through the purchasing system:

17
18 1. Continue to improve services to departments and agencies in the area of purchasing.

19
20 2. Develop automated requisition and reporting systems.

21
22 3. Improve purchasing productivity and control for all departments.

23
24 4. Standardize high volume purchases.

25
26 5. Develop efficient policies and procedures for acquiring goods and services.

27
28 6. Implement inventory controls and minimize costs of goods and services.

29
30 7. Prepare and make available to all departments standardized forms for requisitions,
31 vouchers, inventories and any other form required for county operations.

32
33 8. Assign purchase order numbers for the acquisition of supplies, materials, equipment,
34 tools, services, rental of personal property, professional services and contracted public
35 works exceeding \$2,500.

36
37 9. Maintain vendor list pursuant to RCW 39.04.190.

38
39 10. Whenever practically possible, contact at least three vendors to assure competitive
40 pricing.

41
42 11. Promote a competitive procurement environment by actively soliciting subscribers to the
43 county's web-based purchasing notification system.

44
45 12. Review and approve bid specifications and prepare invitations to bid pursuant to
46 provisions set forth in this chapter.

47
48 13. Check bids for accuracy and compliance with specifications and invitation to bid.

49
50 14. Make bid recommendations on all awards to the county executive.

51
52 15. Perform such other duties as may be required to further the purposes of this chapter.
53 (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A;
54 Ord. 93-042 Exh. H).

1
2 3.08.040 Price quotations.

3 Whenever practically possible, price quotations from at least three vendors shall be solicited
4 for contracted work constituting a public work and the acquisition of materials, supplies,
5 services, tools, equipment or rental of personal property involving amounts greater than
6 \$10,000 not exceeding \$40,000. Quotations for architects and engineers are subject to the
7 requirements of Chapter 39.80 RCW. Records of all quotations obtained shall be maintained
8 and shall be open to public inspection. Bids submitted periodically for the roster of rental
9 equipment with operators may be used as the source of quotations for public works projects
10 not exceeding \$40,000. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh.
11 A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

12
13 3.08.050 Vendor lists.

14 Whatcom County will maintain a vendor list pursuant to RCW 39.04.190. (Ord. 2016-032
15 Exh. A; Ord. 2013-029 Exh. A).

16
17 3.08.060 Bids and proposals required.

18 Awards of contracts for the acquisition of materials, supplies, services, tools, equipment or
19 rental of personal property and professional services exceeding \$40,000 will be based upon
20 bids or proposals received in response to specifications and invitations to bid, except as
21 follows:

22
23 A. Sole source purchases shall not be required to go through competitive bidding. A
24 purchase may be determined to be sole source by the county executive or designee when
25 the bidding process would be futile because only one bidder could respond to the invitation.

26
27 B. In the event of an emergency when the public interest or property of the county would
28 suffer material injury or damage by delay, upon an order of the county executive declaring
29 the existence of such emergency and reciting the facts constituting same, the requirements
30 governing competitive bids with reference to any purchase or contract may be waived
31 pursuant to RCW 36.32.270.

32
33 C. Public works projects involving funds not exceeding the amount allowed in RCW
34 39.04.155, Small works roster contract procedures – Limited public works process, or any
35 successor statute, may be completed utilizing the small works roster contract award
36 process.

37
38 D. Acquisition is from another public entity.

39
40 E. Contract does not require use of county funds.

41
42 Proposals from architects and engineers are subject to the requirements of Chapter 39.80
43 RCW. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034
44 Exh. A; Ord. 93-042 Exh. H).

45
46 3.08.070 Contractor's bond required for public works.

47 Whatcom County shall comply with the requirements of RCW 39.08.010. (Ord. 2016-032
48 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042
49 Exh. H).

50
51 3.08.080 Labor and material claims.

52 Labor and material claims shall be filed pursuant to RCW 39.08.030. (Ord. 2016-032 Exh.
53 A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

1 3.08.090 Bid specifications, deposits and awards.

2 A. In developing specifications for bids or proposals, all reasonable efforts shall be made to
3 ensure a competitive process and that a variety of vendors shall be capable of fulfilling the
4 stated requirements of the county. Performance considerations shall be included in the
5 specifications. However, nothing in this section shall be construed to limit the county from
6 pursuing sole source procurement where adequate justification has been presented that
7 such procurement is in the best interests of county operations.
8

9 B. When the acquisition of materials, supplies, purchased services, tools, equipment, rental
10 of personal property or professional services involves amounts greater than \$40,000 for a
11 nonpublic work or public work award, the administrative services department shall be
12 responsible for the review and approval of specifications and the preparation of invitations
13 to bid pursuant to provisions set forth in this chapter.
14

15 C. All bid specifications shall be in writing and placed on file for public inspection.
16

17 D. All invitations for bids, requests for proposals, requests for qualifications and bid packets
18 will be posted on the county's website. Project announcements and bid solicitations or
19 proposals shall be published in the official county newspaper, and when in the county's best
20 interest, other regional publications. Additionally, the county will offer complimentary bid
21 packets to multiple northwest and national plan centers. Advertisements shall be published
22 at least once at least 13 days prior to the last date upon which bids will be received. Such
23 advertisement shall state:
24

25 1. The date after which bids will not be received;
26

27 2. The character of the work to be done, or the materials, equipment or service to be
28 purchased; and
29

30 3. Instruction on how to obtain additional information, including the complete bid packet.
31

32 E. No bid shall be considered for public works unless it is accompanied by a bid deposit in
33 the form of a surety bond, postal money order, cash, cashier's check, or certified check in
34 an amount equal to five percent of the amount of the bid proposed.
35

36 F. Should the bidder to whom the contract is awarded fail to enter into the contract or fail to
37 furnish the contractor's bond within 10 days (exclusive of the date of notice) after notice of
38 the award, the amount of the bid deposit shall be forfeited to the county. Thereafter, the
39 award shall be made to the next lowest responsive bidder. The bid deposit of an
40 unsuccessful bidder (if his bid deposit has not been forfeited) shall be returned after the
41 required contractor's bond of the successful bidder has been accepted.
42

43 G. Bids received shall be opened and read in public on the date named in the advertisement
44 for bids, or on a subsequent date established in a bid addendum.
45

46 H. After opening, all bids shall be reviewed and referred to the requisitioning department for
47 recommendation of award. Bids will be forwarded by the director of the administrative
48 services department or designee with a recommendation to the county executive for award.
49

50 I. After opening and award, all bids shall be filed for public inspection, and available by
51 telephone inquiry.
52

53 J. Any or all bids may be rejected for good cause. If all bids are not rejected, the award
54 shall be to the lowest responsive bidder. In determining which is the lowest responsive

bidder, the county may take into consideration the bidder's responsiveness to the county's requirements, the quality of the articles to be purchased or leased, availability of parts and service, delivery time, the tax revenue the county would receive from purchasing from a supplier located within its boundaries and prior dealings with the bidder.

K. The county may issue requests for proposals for services, or for technologically complex equipment including but not limited to computers, software, or telephone systems. If all proposals are not rejected, the award shall be to the highest rated proposal, taking into account the selection criteria published in the request for proposals.

L. The county may award to multiple bidders for the same commodity or service when the bid specifications provide for special circumstances in the determination of which vendor is truly the lowest price to the county. Special circumstances may include differences in ability to deliver, delivery time, availability of material, special loading or unloading conditions, total cost including transport or labor if not included with bid item, performance of the delivered material, location of the source, and proximity to the delivery point.

M. Contracts that require county council approval per WCC 3.08.100 may be administratively amended to a cumulative amount not to exceed \$10,000 or 10 percent of contract amount, whichever is greater; larger amounts require council approval. No administrative contract amendment may exceed authorized expenditure authority. (Ord. 2016-032 Exh. A; Ord. 2015-011 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

3.08.095 Small works roster contract award process.

This section may be utilized in the acquisition of contractual services necessary to complete public works projects as allowed under RCW 36.32.250, and consistent with RCW 39.04.155. In order to use a small works roster contract award process in lieu of formal sealed bidding, the county shall:

A. Publish at least twice each year in the official county newspaper a notice of the existence of the roster and solicit the names of contractors that are qualified for the requested categories of work. Notice shall be published at least once in each week for two consecutive weeks prior to the last date upon which response to the notice will be received, and may be published for as many additional publications as shall be considered in the county's interest.

B. In every case a certain category of work is to be accomplished under this section, all contractors responding to the above notice and indicating their qualification to perform the category of work proposed shall be contacted and provided an invitation to bid.

C. Include in the invitation to bid the date on which bids will be received, the scope and nature of work to be performed, the materials and equipment to be furnished, and, if not provided otherwise in the invitation to bid, where the detailed plans and specifications may be seen and obtained.

D. Otherwise apply the provisions of WCC 3.08.090(B), (E), (F), (G), (H), (I), (J), and (M).

E. Forgo the advertisement of a contract awarded through use of the small works roster. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A).

3.08.100 Council approval required.

County council approval is required for the following:

A. Contracts or bid awards exceeding \$40,000 and all real property leases, except when:

- 1
- 2 1. Exercising an option contained in a contract or lease previously approved by the council.
- 3
- 4 2. Contract is for the design, construction, right-of-way acquisition, professional services, or
- 5 other capital costs approved by the county council in a capital budget appropriation
- 6 ordinance.
- 7
- 8 3. Contract or bid award is for supplies or for equipment approved in a capital budget
- 9 appropriation ordinance.
- 10
- 11 4. Contract is for technical support and software maintenance from the developer of
- 12 proprietary software which is currently being used by Whatcom County.
- 13
- 14 5. Contract is for manufacturer's technical support and hardware maintenance of electronic
- 15 systems.
- 16
- 17 6. Pursuant to and within the scope of a declaration of emergency made by the county
- 18 executive under WCC 3.08.060(B). The county executive, pursuant to a declaration of
- 19 emergency, shall submit the contract to the county council for informational purposes at the
- 20 council's next regular or special meeting.
- 21
- 22 B. All informational materials distributed to more than 20 percent of county residences for
- 23 the purpose of informing or educating the public on a specific capital project, levy or tax.
- 24 (Ord. 2016-032 Exh. A; Ord. 2015-011 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh.
- 25 A; Ord. 2000-025; Ord. 97-034 Exh. A; Ord. 96-034; Ord. 93-042 Exh. H).
- 26
- 27 3.08.110 Unregistered or unlicensed contractors prohibited.
- 28 No contract shall be entered into or executed with any contractor who is not registered or
- 29 licensed as required by the laws of this state (except only as permitted under RCW
- 30 39.06.010 for highway projects for contractors who have been prequalified as required
- 31 under RCW 47.28.070). (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh.
- 32 A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
- 33
- 34 3.08.120 Joint purchasing.
- 35 The county may enter into agreements with the state or with any agency, political
- 36 subdivision, or unit of local government to purchase goods or services cooperatively. Joint
- 37 purchasing services are hereby authorized and encouraged with any other municipal
- 38 corporation in Whatcom County. Assistance to the participating municipal corporation may
- 39 be given in any way except that a sale or contract shall be between the vendor and the
- 40 participating municipal corporation and not Whatcom County. Bids and quotes may be
- 41 obtained jointly based on volume if it is in the county's best interest to do so. (Ord. 2016-
- 42 032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-
- 43 042 Exh. H).
- 44
- 45 3.08.125 Nondiscrimination.
- 46 Whatcom County endeavors to secure for all individuals within the county the freedom from
- 47 discrimination because of race, color, religion, national origin, gender, sexual orientation
- 48 (including gender identity), age, marital status, or disability in connection with employment,
- 49 and thereby to promote the interests, rights and privileges of individuals within the county.
- 50
- 51 A. All contracts proposed by county staff shall incorporate equal employment opportunity
- 52 clauses which shall read as follows, or as subsequently amended to be consistent with
- 53 existing law:
- 54

1 1. Nondiscrimination in Employment. The county's policy is to provide equal opportunity in
2 all terms, conditions and privileges of employment for all qualified applicants and employees
3 without regard to race, color, creed, religion, national origin, sex, sexual orientation
4 (including gender identity), age, marital status, disability, or veteran status. The contractor
5 shall comply with all laws prohibiting discrimination against any employee or applicant for
6 employment on the grounds of race, color, creed, religion, national origin, sex, sexual
7 orientation (including gender identity), age, marital status, disability, political affiliation, or
8 veteran status, except where such constitutes a bona fide occupational qualification.
9

10 Furthermore, in those cases in which the contractor is governed by such laws, the
11 contractor shall take affirmative action to ensure that applicants are employed, and treated
12 during employment, without regard to their race, color, creed, religion, national origin, sex,
13 age, marital status, sexual orientation (including gender identity), disability, or veteran
14 status, except where such constitutes a bona fide occupational qualification. Such action
15 shall include, but not be limited to: advertising, hiring, promotions, layoffs or terminations,
16 rate of pay or other forms of compensation benefits, selection for training including
17 apprenticeship, and participation in recreational and educational activities. In all solicitations
18 or advertisements for employees placed by them or on their behalf, the contractor shall
19 state that all qualified applicants will receive consideration for employment without regard
20 to race, color, religion, sex or national origin.
21

22 The foregoing provisions shall also be binding upon any subcontractor; provided, that the
23 foregoing provisions shall not apply to contracts or subcontractors for standard commercial
24 supplies or raw materials, or to sole proprietorships with no employees.
25

26 2. Nondiscrimination in Client Services. The contractor shall not discriminate on the grounds
27 of race, color, creed, religion, national origin, sex, age, marital status, sexual orientation
28 (including gender identity), disability, or veteran status; or deny an individual or business
29 any service or benefits under this agreement unless otherwise allowed by applicable law; or
30 subject an individual or business to segregation or separate treatment in any manner
31 related to his/her/its receipt any service or services or other benefits provided under this
32 agreement unless otherwise allowed by applicable law; or deny an individual or business an
33 opportunity to participate in any program provided by this agreement unless otherwise
34 allowed by applicable law.
35

36 B. Noncompliance with the nondiscrimination in employment and client services provisions
37 will be grounds for terminating a contract and may hinder a contractor's eligibility for future
38 contracts. (Ord. 2021-016 Exh. A).
39

40 3.08.130 Amendments to chapter.

41 The county council reserves the exclusive right to alter, amend, rescind, abrogate, delete,
42 supersede or replace the provisions of this chapter, or any part thereof, in any manner not
43 inconsistent with state law. Whether or not the county council takes action, the provisions of
44 this chapter shall be deemed automatically altered, amended, or superseded to conform to
45 any mandatory state administrative ruling or statute, as of the effective date of any such
46 enactment appertaining to the matters covered in this chapter, to the effect that the
47 provisions of this chapter shall at all times conform to, and never conflict with, said state
48 laws and regulations. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A;
49 Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
50

51 3.08.140 Severability.

52 If any provision of this chapter is held to be invalid, the remainder of the chapter shall
53 remain in effect. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A;
54 Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

PROPOSED BY: BROWNE

INTRODUCED: _____

ORDINANCE NO. _____

**AMENDING WHATCOM COUNTY CODE TITLE 3 REVENUE AND FINANCE,
SPECIFICALLY CHAPTERS 3.06 (GRANTS) AND 3.08 (PURCHASING SYSTEM)
TO INCORPORATE NEW STATE LEGISLATION, REMOVE SUNSET CLAUSE,
AND REVISE PARAMETERS FOR COUNCIL APPROVAL**

WHEREAS, Whatcom County residents entrust the County Council and Executive to procure goods responsibly, efficiently, and with transparency; and

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NOW, THEREFORE, BE IT ORDAINED, that the Whatcom County Code Chapters 3.06 and 3.08 shall hereby be amended as detailed in the attached Exhibit A.

ADOPTED this _____ day of _____, 2021.

ATTEST:

**WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON**

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

**WHATCOM COUNTY EXECUTIVE
WHATCOM COUNTY, WASHINGTON**

Karen Frakes (by email 10/19/2021)
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

() Approved () Denied

Date Signed: _____

EXHIBIT A

Chapter 3.06

GRANTS

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Chapter 3.08

PURCHASING SYSTEM

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2 timely and complete procurement information to prospective vendors, and report successful
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8 The director of the administrative services department shall have full authority and
9 responsibility for the operation and ongoing improvement of the purchasing system under
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15 provide a comprehensive basis for purchasing functions shall fall under the purview of the
16 purchasing system.

17
18 B. The following responsibilities shall be coordinated through the purchasing system:

19
20 1. Continue to improve services to departments and agencies in the area of purchasing.

21
22 2. Develop automated requisition and reporting systems.

23
24 3. Improve purchasing productivity and control for all departments.

25
26 4. Standardize high volume purchases.

27
28 5. Develop efficient policies and procedures for acquiring goods and services.

29
30 6. Implement inventory controls and minimize costs of goods and services.

31
32 7. Prepare and make available to all departments standardized forms for requisitions,
33 vouchers, inventories and any other form required for county operations.

34
35 8. Assign purchase order numbers for the acquisition of supplies, materials, equipment,
36 tools, services, rental of personal property, professional services and contracted public
37 works exceeding \$2,500.

38
39 9. Maintain vendor list pursuant to RCW 39.04.190.

40
41 10. Whenever practically possible, contact at least three vendors to assure competitive
42 pricing.

43
44 11. Promote a competitive procurement environment by actively soliciting subscribers to the
45 county's web-based purchasing notification system.

46
47 12. Review and approve bid specifications and prepare invitations to bid pursuant to
48 provisions set forth in this chapter.

49
50 13. Check bids for accuracy and compliance with specifications and invitation to bid.

51
52 14. Make bid recommendations on all awards to the county executive.

1 15. Perform such other duties as may be required to further the purposes of this chapter.
2 (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A;
3 Ord. 93-042 Exh. H).
4

5 3.08.040 Price quotations.

6 Whenever practically possible, price quotations from at least three vendors shall be solicited
7 for contracted work constituting a public work and the acquisition of materials, supplies,
8 services, tools, equipment or rental of personal property involving amounts greater than
9 \$10,000 not exceeding \$40,000. Quotations for architects and engineers are subject to the
10 requirements of Chapter 39.80 RCW. Records of all quotations obtained shall be maintained
11 and shall be open to public inspection. Bids submitted periodically for the roster of rental
12 equipment with operators may be used as the source of quotations for public works projects
13 not exceeding \$40,000. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh.
14 A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
15

16 3.08.050 Vendor lists.

17 Whatcom County will maintain a vendor list pursuant to RCW 39.04.190. (Ord. 2016-032
18 Exh. A; Ord. 2013-029 Exh. A).
19

20 3.08.060 Bids and proposals required.

21 Awards of contracts for the acquisition of materials, supplies, services, tools, equipment or
22 rental of personal property and professional services exceeding \$40,000 will be based upon
23 bids or proposals received in response to specifications and invitations to bid, except as
24 follows:
25

26 A. Sole source purchases shall not be required to go through competitive bidding. A
27 purchase may be determined to be sole source by the county executive or designee when
28 the bidding process would be futile because only one bidder could respond to the invitation.
29

30 B. In the event of an emergency when the public interest or property of the county would
31 suffer material injury or damage by delay, upon an order of the county executive declaring
32 the existence of such emergency and reciting the facts constituting same, the requirements
33 governing competitive bids with reference to any purchase or contract may be waived
34 pursuant to RCW 36.32.270.
35

36 C. Public works projects involving funds not exceeding the amount allowed in RCW
37 39.04.155, Small works roster contract procedures – Limited public works process, or any
38 successor statute, may be completed utilizing the small works roster contract award
39 process.
40

41 D. Acquisition is from another public entity.
42

43 E. Contract does not require use of county funds.
44

45 Proposals from architects and engineers are subject to the requirements of Chapter 39.80
46 RCW. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034
47 Exh. A; Ord. 93-042 Exh. H).
48

49 3.08.070 Contractor's bond required for public works.

50 Whatcom County shall comply with the requirements of RCW 39.08.010. (Ord. 2016-032
51 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042
52 Exh. H).
53

54 3.08.080 Labor and material claims.

1 Labor and material claims shall be filed pursuant to RCW 39.08.030. (Ord. 2016-032 Exh.
2 A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
3
4 3.08.090 Bid specifications, deposits and awards.
5 A. In developing specifications for bids or proposals, all reasonable efforts shall be made to
6 ensure a competitive process and that a variety of vendors shall be capable of fulfilling the
7 stated requirements of the county. Performance considerations shall be included in the
8 specifications. However, nothing in this section shall be construed to limit the county from
9 pursuing sole source procurement where adequate justification has been presented that
10 such procurement is in the best interests of county operations.
11
12 B. When the acquisition of materials, supplies, purchased services, tools, equipment, rental
13 of personal property or professional services involves amounts greater than \$40,000 for a
14 nonpublic work or public work award, the administrative services department shall be
15 responsible for the review and approval of specifications and the preparation of invitations
16 to bid pursuant to provisions set forth in this chapter.
17
18 C. All bid specifications shall be in writing and placed on file for public inspection.
19
20 D. All invitations for bids, requests for proposals, requests for qualifications and bid packets
21 will be posted on the county's website. Project announcements and bid solicitations or
22 proposals shall be published in the official county newspaper, and when in the county's best
23 interest, other regional publications. Additionally, the county will offer complimentary bid
24 packets to multiple northwest and national plan centers. Advertisements shall be published
25 at least once ~~in each week for two consecutive weeks at least 13 days~~ prior to the last date
26 upon which bids will be received. Such advertisement shall state:
27
28 1. The date after which bids will not be received;
29
30 2. The character of the work to be done, or the materials, equipment or service to be
31 purchased; and
32
33 3. Instruction on how to obtain additional information, including the complete bid packet.
34
35 E. No bid shall be considered for public works unless it is accompanied by a bid deposit in
36 the form of a surety bond, postal money order, cash, cashier's check, or certified check in
37 an amount equal to five percent of the amount of the bid proposed.
38
39 F. Should the bidder to whom the contract is awarded fail to enter into the contract or fail to
40 furnish the contractor's bond within 10 days (exclusive of the date of notice) after notice of
41 the award, the amount of the bid deposit shall be forfeited to the county. Thereafter, the
42 award shall be made to the next lowest responsive bidder. The bid deposit of an
43 unsuccessful bidder (if his bid deposit has not been forfeited) shall be returned after the
44 required contractor's bond of the successful bidder has been accepted.
45
46 G. Bids received shall be opened and read in public on the date named in the advertisement
47 for bids, or on a subsequent date established in a bid addendum.
48
49 H. After opening, all bids shall be reviewed and referred to the requisitioning department for
50 recommendation of award. Bids will be forwarded by the director of the administrative
51 services department or designee with a recommendation to the county executive for award.
52
53 I. After opening and award, all bids shall be filed for public inspection, and available by
54 telephone inquiry.

1
2 J. Any or all bids may be rejected for good cause. If all bids are not rejected, the award
3 shall be to the lowest responsive bidder. In determining which is the lowest responsive
4 bidder, the county may take into consideration the bidder's responsiveness to the county's
5 requirements, the quality of the articles to be purchased or leased, availability of parts and
6 service, delivery time, the tax revenue the county would receive from purchasing from a
7 supplier located within its boundaries and prior dealings with the bidder.
8

9 K. The county may issue requests for proposals for services, or for technologically complex
10 equipment including but not limited to computers, software, or telephone systems. If all
11 proposals are not rejected, the award shall be to the highest rated proposal, taking into
12 account the selection criteria published in the request for proposals.
13

14 L. The county may award to multiple bidders for the same commodity or service when the
15 bid specifications provide for special circumstances in the determination of which vendor is
16 truly the lowest price to the county. Special circumstances may include differences in ability
17 to deliver, delivery time, availability of material, special loading or unloading conditions,
18 total cost including transport or labor if not included with bid item, performance of the
19 delivered material, location of the source, and proximity to the delivery point.
20

21 M. Contracts that require county council approval per WCC 3.08.100 may be
22 administratively amended to a cumulative amount not to exceed \$10,000 or 10 percent of
23 contract amount, whichever is greater; larger amounts require council approval. No
24 administrative contract amendment may exceed authorized expenditure authority. (Ord.
25 2016-032 Exh. A; Ord. 2015-011 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A;
26 Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
27

28 3.08.095 Small works roster contract award process.

29 This section may be utilized in the acquisition of contractual services necessary to complete
30 public works projects as allowed under RCW 36.32.250, and consistent with RCW
31 39.04.155. In order to use a small works roster contract award process in lieu of formal
32 sealed bidding, the county shall:
33

34 A. Publish at least twice each year in the official county newspaper a notice of the existence
35 of the roster and solicit the names of contractors that are qualified for the requested
36 categories of work. Notice shall be published at least once in each week for two consecutive
37 weeks prior to the last date upon which response to the notice will be received, and may be
38 published for as many additional publications as shall be considered in the county's interest.
39

40 B. In every case a certain category of work is to be accomplished under this section, all
41 contractors responding to the above notice and indicating their qualification to perform the
42 category of work proposed shall be contacted and provided an invitation to bid.
43

44 C. Include in the invitation to bid the date on which bids will be received, the scope and
45 nature of work to be performed, the materials and equipment to be furnished, and, if not
46 provided otherwise in the invitation to bid, where the detailed plans and specifications may
47 be seen and obtained.
48

49 D. Otherwise apply the provisions of WCC 3.08.090(B), (E), (F), (G), (H), (I), (J), and (M).
50

51 E. Forgo the advertisement of a contract awarded through use of the small works roster.
52 (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A).
53

54 3.08.100 Council approval required.

County council approval is required for the following:

A. Contracts or bid awards exceeding \$40,000 and all real property leases, except when:

1. Exercising an option contained in a contract or lease previously approved by the council.
2. Contract is for the design, construction, right-of-way acquisition, professional services, or other capital costs approved by the county council in a capital budget appropriation ordinance.
3. Contract or bid award is for supplies or for equipment approved in a capital budget appropriation ordinance.
4. Contract is for technical support and software maintenance from the developer of proprietary software which is currently being used by Whatcom County.
5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems.
6. Pursuant to and within the scope of a declaration of emergency made by the county executive under WCC 3.08.060(B). The county executive, pursuant to a declaration of emergency, shall submit the contract to the county council for informational purposes at the council's next regular or special meeting.

B. All informational materials distributed to more than 20 percent of county residences for the purpose of informing or educating the public on a specific capital project, levy or tax. (Ord. 2016-032 Exh. A; Ord. 2015-011 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 2000-025; Ord. 97-034 Exh. A; Ord. 96-034; Ord. 93-042 Exh. H).

3.08.110 Unregistered or unlicensed contractors prohibited.

No contract shall be entered into or executed with any contractor who is not registered or licensed as required by the laws of this state (except only as permitted under RCW 39.06.010 for highway projects for contractors who have been prequalified as required under RCW 47.28.070). (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

3.08.120 Joint purchasing.

The county may enter into agreements with the state or with any agency, political subdivision, or unit of local government to purchase goods or services cooperatively. Joint purchasing services are hereby authorized and encouraged with any other municipal corporation in Whatcom County. Assistance to the participating municipal corporation may be given in any way except that a sale or contract shall be between the vendor and the participating municipal corporation and not Whatcom County. Bids and quotes may be obtained jointly based on volume if it is in the county's best interest to do so. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

3.08.125 Nondiscrimination.

Whatcom County endeavors to secure for all individuals within the county the freedom from discrimination because of race, color, religion, national origin, gender, sexual orientation (including gender identity), age, marital status, or disability in connection with employment, and thereby to promote the interests, rights and privileges of individuals within the county.

1 A. All contracts proposed by county staff shall incorporate equal employment opportunity
2 clauses which shall read as follows, or as subsequently amended to be consistent with
3 existing law:
4

5 1. Nondiscrimination in Employment. The county's policy is to provide equal opportunity in
6 all terms, conditions and privileges of employment for all qualified applicants and employees
7 without regard to race, color, creed, religion, national origin, sex, sexual orientation
8 (including gender identity), age, marital status, disability, or veteran status. The contractor
9 shall comply with all laws prohibiting discrimination against any employee or applicant for
10 employment on the grounds of race, color, creed, religion, national origin, sex, sexual
11 orientation (including gender identity), age, marital status, disability, political affiliation, or
12 veteran status, except where such constitutes a bona fide occupational qualification.
13

14 Furthermore, in those cases in which the contractor is governed by such laws, the
15 contractor shall take affirmative action to ensure that applicants are employed, and treated
16 during employment, without regard to their race, color, creed, religion, national origin, sex,
17 age, marital status, sexual orientation (including gender identity), disability, or veteran
18 status, except where such constitutes a bona fide occupational qualification. Such action
19 shall include, but not be limited to: advertising, hiring, promotions, layoffs or terminations,
20 rate of pay or other forms of compensation benefits, selection for training including
21 apprenticeship, and participation in recreational and educational activities. In all solicitations
22 or advertisements for employees placed by them or on their behalf, the contractor shall
23 state that all qualified applicants will receive consideration for employment without regard
24 to race, color, religion, sex or national origin.
25

26 The foregoing provisions shall also be binding upon any subcontractor; provided, that the
27 foregoing provisions shall not apply to contracts or subcontractors for standard commercial
28 supplies or raw materials, or to sole proprietorships with no employees.
29

30 2. Nondiscrimination in Client Services. The contractor shall not discriminate on the grounds
31 of race, color, creed, religion, national origin, sex, age, marital status, sexual orientation
32 (including gender identity), disability, or veteran status; or deny an individual or business
33 any service or benefits under this agreement unless otherwise allowed by applicable law; or
34 subject an individual or business to segregation or separate treatment in any manner
35 related to his/her/its receipt any service or services or other benefits provided under this
36 agreement unless otherwise allowed by applicable law; or deny an individual or business an
37 opportunity to participate in any program provided by this agreement unless otherwise
38 allowed by applicable law.
39

40 B. Noncompliance with the nondiscrimination in employment and client services provisions
41 will be grounds for terminating a contract and may hinder a contractor's eligibility for future
42 contracts. (Ord. 2021-016 Exh. A).
43

44 3.08.130 Amendments to chapter.

45 The county council reserves the exclusive right to alter, amend, rescind, abrogate, delete,
46 supersede or replace the provisions of this chapter, or any part thereof, in any manner not
47 inconsistent with state law. Whether or not the county council takes action, the provisions of
48 this chapter shall be deemed automatically altered, amended, or superseded to conform to
49 any mandatory state administrative ruling or statute, as of the effective date of any such
50 enactment appertaining to the matters covered in this chapter, to the effect that the
51 provisions of this chapter shall at all times conform to, and never conflict with, said state
52 laws and regulations. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A;
53 Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).
54

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1

~~2 The county council must renew this chapter by December 31, 2021, or the chapter will
3 revert to the language in place on August 1, 2016. All contracts will be administered by the
4 purchasing ordinance in place at the time the contract was signed. (Ord. 2018-033-Exh. A;
5 Ord. 2016-032-Exh. A).~~

7 3.08.140 Severability.

8 If any provision of this chapter is held to be invalid, the remainder of the chapter shall
9 remain in effect. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A;
0 Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-613

File ID:	AB2021-613	Version:	1	Status:	Agenda Ready
File Created:	10/22/2021	Entered by:	JThomson@co.whatcom.wa.us		
Department:	Health Department	File Type:	Contract		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: SSullivan@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into a contract between Whatcom County and Road2Home to operate the COVID Isolation and Quarantine Facility, in the amount of \$159,275

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attachments

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Staff Memo, Proposed Contract



MEMORANDUM

TO: Satpal Sidhu, County Executive

FROM: Erika Lautenbach, Director

RE: Road2Home – COVID Temporary Housing Facility Contract

DATE: October 22, 2021

Attached is a contract between Whatcom County and Road2Home for your review and signature.

- **Background and Purpose**

During the COVID-19 pandemic, it is necessary for Whatcom County to implement actions that will mitigate the spread of the disease and provide basic services in support of public health for the community at large. In order to respond to people in need of isolation and quarantine, who have no other options to accomplish such, Whatcom County opened a COVID-19 Temporary Housing Facility (Facility) in March of 2020. Road2Home will assume administrative oversight of daily operations at the Facility through 24/7 on-site support services to ensure operational, social distancing and public-health related concerns are addressed.

- **Funding Amount and Source**

Funding for this contract may not exceed \$159,275. Funds under the contract are made available by a grant awarded by the Federal Emergency Management Agency (FEMA), passed through the Washington State Military Department (Funding Source Agreement #FEMA-4481-DR-WA) (CFDA 97.036, Public Assistance). Any ineligible costs under FEMA will be charged to other funding sources such as American Rescue Plan Act funding or unrestricted funding sources. These funds are included in the 2021 budget. Council approval is required as funding exceeds \$40,000.

Please contact Sue Sullivan, Environmental Health Manager at 360-778-6026 (SSullivan@co.whatcom.wa.us) or Kathleen Roy, Assistant Director at 360-778-6007 (KRoy@co.whatcom.wa.us), if you have any questions or concerns regarding this request.



WHATCOM COUNTY CONTRACT INFORMATION SHEET				Whatcom County Contract No. _____	
Originating Department:			85 Health		
Division/Program: (i.e. Dept. Division and Program)			8510 Administration / 851000 Administration		
Contract or Grant Administrator:			Sue Sullivan		
Contractor's / Agency Name:			Road2Home		
Is this a New Contract?		If not, is this an Amendment or Renewal to an Existing Contract?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #:			
Does contract require Council Approval?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If No, include WCC: _____	
Already approved? Council Approved Date:		(Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)			
Is this a grant agreement?		If yes, grantor agency contract number(s):		CFDA#:	97.036
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Is this contract grant funded?		If yes, Whatcom County grant contract number(s):		Pending, assigned #202006004	
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>				
Is this contract the result of a RFP or Bid process?		If yes, RFP and Bid number(s):		Contract Cost Center:	660460
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Emergency			
Is this agreement excluded from E-Verify?		No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>		
If YES, indicate exclusion(s) below:					
<input type="checkbox"/> Professional services agreement for certified/licensed professional.					
<input type="checkbox"/> Contract work is for less than \$100,000.			<input type="checkbox"/> Contract for Commercial off the shelf items (COTS).		
<input type="checkbox"/> Contract work is for less than 120 days.			<input type="checkbox"/> Work related subcontract less than \$25,000.		
<input type="checkbox"/> Interlocal Agreement (between Governments).			<input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.		
Contract Amount:(sum of original contract amount and any prior amendments):		Council approval required for; all property leases, contracts or bid awards exceeding \$40,000 , and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when: <ol style="list-style-type: none"> 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County. 			
\$	159,275				
This Amendment Amount:					
\$					
Total Amended Amount:					
\$					
Summary of Scope: This contract provides funding for administrative oversight of operations at Whatcom County's COVID-19 Temporary Housing Facility.					
Term of Contract:		3 months, 10 days		Expiration Date: 12/31/2021	
Contract Routing:		1. Prepared by: JT		Date:	09/15/2021
		2. Health Budget Approval: KR/JG		Date:	10/11/2021
		3. Attorney signoff: RB		Date:	10/08/2021
		4. AS Finance reviewed: M Caldwell		Date:	10/22/21
		5. IT reviewed (if IT related):		Date:	
		6. Contractor approved:		Date:	
		7. Submitted to Exec.:		Date:	
		8. Council approved (if necessary): AB2021-613		Date:	
		9. Executive signed:		Date:	
		10. Original to Council:		Date:	

CONTRACT FOR SERVICES
Between Whatcom County and Road2Home

Road2Home, hereinafter called **Contractor** and Whatcom County, hereinafter referred to as **County**, agree and contract as set forth in this Agreement, including:

General Conditions, pp. 3 to 11,
Exhibit A (Scope of Work), pp. 12 to 13,
Exhibit B (Compensation), p. 14,
Exhibit C (Certificate of Insurance), p. 15,
Exhibit D (Support Assistance Program), pp. 16 to 17,
Exhibit E (Special Terms & Conditions – FEMA).

Copies of these items are attached hereto and incorporated herein by this reference as if fully set forth herein.

The term of this Agreement shall commence on the 21st day of September, 2021, and shall, unless terminated or renewed as elsewhere provided in the Agreement, terminate on the 31st day of December, 2021

The general purpose or objective of this Agreement is to provide funding for administrative oversight of operations at Whatcom County's COVID-19 Temporary Housing Facility as more fully and definitively described in Exhibit A hereto. The language of Exhibit A controls in case of any conflict between it and that provided here.

The maximum consideration for the initial term of this agreement or for any renewal term shall not exceed \$159,275. The Contract Number, set forth above, shall be included on all billings or correspondence in connection therewith.

Contractor acknowledges and by signing this contract agrees that the Indemnification provisions set forth in Paragraphs 11.1, 21.1, 30.1, 31.2, 32.1, 34.2, and 34.3, if included, are totally and fully part of this contract and have been mutually negotiated by the parties.

Each person signing this Contract represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Contract.

IN WITNESS WHEREOF, the parties have executed this Agreement on:

CONTRACTOR:

Road2Home
PO Box 3091
Bellingham, WA 98227

Each signatory below to this Contract warrants that he/she is the authorized agent of the respective party; and that he/she has the authority to enter into the contract and to bind the party thereto.

Ashley Buerger, Executive Director

WHATCOM COUNTY:
Recommended for Approval:

Sue Sullivan, Environmental Health Manager Date

Erika Lautenbach, Director Date

Approved as to form:

Royce Buckingham, Prosecuting Attorney Date

Approved:
Accepted for Whatcom County:

By: _____
Satpal Singh Sidhu, Whatcom County Executive

CONTRACTOR INFORMATION:

Road2Home
Ashley Buerger, Executive Director
PO Box 3091
Bellingham, WA 98227
360-441-1519
ashley@road2home.org

GENERAL CONDITIONS

Series 00-09: Provisions Related to Scope and Nature of Services

0.1 Scope of Services:

The Contractor agrees to provide to the County services and any materials as set forth in the project narrative identified as Exhibit "A", during the agreement period. No material, labor, or facilities will be furnished by the County, unless otherwise provided for in the Agreement.

Series 10-19: Provisions Related to Term and Termination

10.1 Term:

Services provided by Contractor prior to or after the term of this contract shall be performed at the expense of Contractor and are not compensable under this contract unless both parties hereto agree to such provision in writing. The term of this Agreement may be extended by mutual agreement of the parties; provided, however, that the Agreement is in writing and signed by both parties.

10.2 Extension:

The duration of this Agreement may be extended by mutual written consent of the parties, for a period of up to one year, and for a total of no longer than three years. The County will provide a thirty-day written notification of any proposed extension.

11.1 Termination for Default:

If the Contractor defaults by failing to perform any of the obligations of the contract or becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency or makes an assignment for the benefit of creditors, the County may, by depositing written notice to the Contractor in the U.S. mail, first class postage prepaid, terminate the contract, and at the County's option, obtain performance of the work elsewhere. Termination shall be effective upon Contractor's receipt of the written notice, or within three (3) days of the mailing of the notice, whichever occurs first. If the contract is terminated for default, the Contractor shall not be entitled to receive any further payments under the contract until all work called for has been fully performed. Any extra cost or damage to the County resulting from such default(s) shall be deducted from any money due or coming due to the Contractor. The Contractor shall bear any extra expenses incurred by the County in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the County by reason of such default.

11.2 Termination for Reduction in Funding:

In the event that funding from State, Federal or other sources is withdrawn, reduced, or limited in any way after the effective date of this Agreement, and prior to its normal completion, the County may summarily terminate this Agreement as to the funds withdrawn, reduced, or limited, notwithstanding any other termination provisions of this Agreement. If the level of funding withdrawn, reduced or limited is so great that the County deems that the continuation of the programs covered by this Agreement is no longer in the best interest of the County, the County may summarily terminate this Agreement in whole, notwithstanding any other termination provisions of this Agreement. Termination under this section shall be effective upon receipt of written notice as specified herein, or within three days of the mailing of the notice, whichever occurs first.

11.3 Termination for Public Convenience:

The County may terminate the Agreement in whole or in part whenever the County determines, in its sole discretion, that such termination is in the interests of the County. Whenever the Agreement is terminated in accordance with this paragraph, the Contractor shall be entitled to payment for actual work performed at unit contract prices for completed items of work. An equitable adjustment in the contract price for partially completed items of work will be made, but such adjustment shall not include provision for loss of anticipated profit on deleted or uncompleted work. Termination of this Agreement by the County at any time during the term, whether for default or convenience, shall not constitute breach of contract by the County.

Series 20-29: Provisions Related to Consideration and Payments

20.1 Accounting and Payment for Contractor Services:

Payment to the Contractor for services rendered under this Agreement shall be as set forth in Exhibit "B." Where Exhibit "B" requires payments by the County, payment shall be based upon written claims supported, unless otherwise provided in Exhibit "B," by documentation of units of work actually performed and amounts earned, including, where appropriate, the actual number of days worked each month, total number of hours for the month, and the total dollar payment requested, so as to comply with municipal auditing requirements.

Unless specifically stated in Exhibit "B" or approved in writing in advance by the official executing this Agreement for the County or his designee (hereinafter referred to as the "Administrative Officer") the County will not reimburse the Contractor for any costs or expenses incurred by the Contractor in the performance of this contract. Where required, the County shall, upon receipt of appropriate documentation, compensate the

Contractor, no more often than monthly, in accordance with the County's customary procedures, pursuant to the fee schedule set forth in Exhibit "B."

21.1 Taxes:

The Contractor understands and acknowledges that the County will not withhold Federal or State income taxes. Where required by State or Federal law, the Contractor authorizes the County to withhold for any taxes other than income taxes (i.e., Medicare). All compensation received by the Contractor will be reported to the Internal Revenue Service at the end of the calendar year in accordance with the applicable IRS regulations. It is the responsibility of the Contractor to make the necessary estimated tax payments throughout the year, if any, and the Contractor is solely liable for any tax obligation arising from the Contractor's performance of this Agreement. The Contractor hereby agrees to indemnify the County against any demand to pay taxes arising from the Contractor's failure to pay taxes on compensation earned pursuant to this Agreement.

The County will pay sales and use taxes imposed on goods or services acquired hereunder as required by law. The Contractor must pay all other taxes, including, but not limited to, Business and Occupation Tax, taxes based on the Contractor's gross or net income, or personal property to which the County does not hold title. The County is exempt from Federal Excise Tax.

22.1 Withholding Payment:

In the event the County's Administrative Officer determines that the Contractor has failed to perform any obligation under this Agreement within the times set forth in this Agreement, then the County may withhold from amounts otherwise due and payable to Contractor the amount determined by the County as necessary to cure the default, until the Administrative Officer determines that such failure to perform has been cured. Withholding under this clause shall not be deemed a breach entitling Contractor to termination or damages, provided that the County promptly gives notice in writing to the Contractor of the nature of the default or failure to perform, and in no case more than 10 days after it determines to withhold amounts otherwise due. A determination of the Administrative Officer set forth in a notice to the Contractor of the action required and/or the amount required to cure any alleged failure to perform shall be deemed conclusive, except to the extent that the Contractor acts within the times and in strict accord with the provisions of the Disputes clause of this Agreement. The County may act in accordance with any determination of the Administrative Officer which has become conclusive under this clause, without prejudice to any other remedy under the Agreement, to take all or any of the following actions: (1) cure any failure or default, (2) to pay any amount so required to be paid and to charge the same to the account of the Contractor, (3) to set off any amount so paid or incurred from amounts due or to become due the Contractor. In the event the Contractor obtains relief upon a claim under the Disputes clause, no penalty or damages shall accrue to Contractor by reason of good faith withholding by the County under this clause.

23.1 Labor Standards:

The Contractor agrees to comply with all applicable state and federal requirements, including but not limited to those pertaining to payment of wages and working conditions, in accordance with RCW 39.12.040, the Prevailing Wage Act; the Americans with Disabilities Act of 1990; the Davis-Bacon Act; and the Contract Work Hours and Safety Standards Act providing for weekly payment of prevailing wages, minimum overtime pay, and providing that no laborer or mechanic shall be required to work in surroundings or under conditions which are unsanitary, hazardous, or dangerous to health and safety as determined by regulations promulgated by the Federal Secretary of Labor and the State of Washington.

Series 30-39: Provisions Related to Administration of Agreement

30.1 Independent Contractor:

The Contractor's services shall be furnished by the Contractor as an independent contractor, and nothing herein contained shall be construed to create a relationship of employer-employee or master-servant, but all payments made hereunder and all services performed shall be made and performed pursuant to this Agreement by the Contractor as an independent contractor.

The Contractor acknowledges that the entire compensation for this Agreement is specified in Exhibit "B" and the Contractor is not entitled to any benefits including, but not limited to: vacation pay, holiday pay, sick leave pay, medical, dental, or other insurance benefits, or any other rights or privileges afforded to employees of the County. The Contractor represents that he/she/it maintains a separate place of business, serves clients other than the County, will report all income and expense accrued under this contract to the Internal Revenue Service, and has a tax account with the State of Washington Department of Revenue for payment of all sales and use and Business and Occupation taxes collected by the State of Washington.

Contractor will defend, indemnify and hold harmless the County, its officers, agents or employees from any loss or expense, including, but not limited to, settlements, judgments, setoffs, attorneys' fees or costs incurred by reason of claims or demands because of breach of the provisions of this paragraph

30.2 Assignment and Subcontracting:

The performance of all activities contemplated by this agreement shall be accomplished by the Contractor. No portion of this contract may be assigned or subcontracted to any other individual, firm or entity without the express and prior written approval of the County.

30.3 No Guarantee of Employment:

The performance of all or part of this contract by the Contractor shall not operate to vest any employment rights whatsoever and shall not be deemed to guarantee any employment of the Contractor or any employee of the Contractor or any subcontractor or any employee of any subcontractor by the County at the present time or in the future.

31.1 Ownership of Items Produced and Public Records Act:

All writings, programs, data, public records or other materials prepared by the Contractor and/or its consultants or subcontractors, in connection with performance of this Agreement, shall be the sole and absolute property of the County. If the Contractor creates any copyrightable materials or invents any patentable property, the Contractor may copyright or patent the same, but the County retains a royalty-free, nonexclusive and irrevocable license to reproduce, publish, recover, or otherwise use the materials or property and to authorize other governments to use the same for state or local governmental purposes. Contractor further agrees to make research, notes, and other work products produced in the performance of this Agreement available to the County upon request.

Ownership. Any and all data, writings, programs, public records, reports, analyses, documents, photographs, pamphlets, plans, specifications, surveys, films or any other materials created, prepared, produced, constructed, assembled, made, performed or otherwise produced by the Contractor or the Contractor's subcontractors or consultants for delivery to the County under this Contract shall be the sole and absolute property of the County. Such property shall constitute "work made for hire" as defined by the U.S. Copyright Act of 1976, 17 U.S.C. § 101, and the ownership of the copyright and any other intellectual property rights in such property shall vest in the County at the time of its creation. Ownership of the intellectual property includes the right to copyright, patent, and register, and the ability to transfer these rights. Material which the Contractor uses to perform this Contract but is not created, prepared, constructed, assembled, made, performed or otherwise produced for or paid for by the County is owned by the Contractor and is not "work made for hire" within the terms of this Agreement.

Public Records Act. This Contract and all records associated with this Contract shall be available for inspection and copying by the public where required by the Public Records Act, Chapter 42.56 RCW (the "Act"). To the extent that public records then in the custody of the Contractor are needed for the County to respond to a request under the Act, as determined by the County, the Contractor agrees to make them promptly available to the County at no cost to the County. If the Contractor considers any portion of any record provided to the County under this Agreement, whether in electronic or hard copy form, to be protected from disclosure under law, the Contractor shall clearly identify any specific information that it claims to be confidential or proprietary. If the County receives a request under the Act to inspect or copy the information so identified by the Contractor and the County determines that release of the information is required by the Act or otherwise appropriate, the County's sole obligations shall be to notify the Contractor (a) of the request and (b) of the date that such information will be released to the requester unless the Contractor obtains a court order to enjoin that disclosure pursuant to RCW 42.56.540. If the Contractor fails to timely obtain a court order enjoining disclosure, the County will release the requested information on the date specified.

The County has, and by this section assumes, no obligation on behalf of the Contractor to claim any exemption from disclosure under the Act. The County shall not be liable to the Contractor for releasing records not clearly identified by the Contractor as confidential or proprietary. The County shall not be liable to the Contractor for any records that the County releases in compliance with this section or in compliance with an order of a court of competent jurisdiction.

The Contractor shall be liable to the requester for any and all fees, costs, penalties or damages imposed or alleged as a result of the Contractor's failure to provide adequate or timely records.

This provision and the obligations it establishes shall remain in effect after the expiration of this contract.

31.2 Patent/Copyright Infringement:

Contractor will defend and indemnify the County from any claimed action, cause or demand brought against the County, to the extent such action is based on the claim that information supplied by the Contractor infringes any patent or copyright. The Contractor will pay those costs and damages attributable to any such claims that are finally awarded against the County in any action. Such defense and payments are conditioned upon the following:

A. The Contractor shall be notified promptly in writing by the County of any notice of such claim.

B. Contractor shall have the right, hereunder, at its option and expense, to obtain for the County the right to continue using the information, in the event such claim of infringement, is made, provided no reduction in performance or loss results to the County.

32.1 Confidentiality:

The Contractor, its employees, subcontractors, and their employees shall maintain the confidentiality of all information provided by the County or acquired by the Contractor in performance of this Agreement, except upon the prior written consent of the County or an order entered by a court after having acquired jurisdiction over the County. Contractor shall immediately give to the County notice of any judicial proceeding seeking disclosure of such information. Contractor shall indemnify and hold harmless the County, its officials, agents or employees from all loss or expense, including, but not limited to, settlements, judgments, setoffs, attorneys' fees and costs resulting from Contractor's breach of this provision.

33.1 Right to Review:

This contract is subject to review by any Federal, State or County auditor. The County or its designee shall have the right to review and monitor the financial and service components of this program by whatever means are deemed expedient by the Administrative Officer or by the County Auditor's Office. Such review may occur with or without notice and may include, but is not limited to, on-site inspection by County agents or employees, inspection of all records or other materials which the County deems pertinent to the Agreement and its performance, and any and all communications with or evaluations by service recipients under this Agreement. The Contractor shall preserve and maintain all financial records and records relating to the performance of work under this Agreement for three (3) years after contract termination, and shall make them available for such review, within Whatcom County, State of Washington, upon request. Contractor also agrees to notify the Administrative Officer in advance of any inspections, audits, or program review by any individual, agency, or governmental unit whose purpose is to review the services provided within the terms of this Agreement. If no advance notice is given to the Contractor, then the Contractor agrees to notify the Administrative Officer as soon as it is practical.

34.1 Insurance:

The Contractor shall, at its own expense, obtain and continuously maintain the following insurance coverage for the duration of this contract, which shall include insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, subcontractors or employees. All insurers providing such insurance shall have an A.M. Best Rating of not less than A- (or otherwise be acceptable to the County) and be licensed to do business in the State of Washington and admitted by the Washington State Insurance Commissioner. Coverage limits shall be the minimum limits identified in this Contract or the coverage limits provided or available under the policies maintained by the Contractor without regard to this Contract, whichever are greater.

1. Commercial General Liability

Property Damage	\$500,000.00, per occurrence
General Liability & bodily injury	\$1,000,000.00, per occurrence
Annual Aggregate	\$2,000,000.00

At least as broad as ISO form CG 00 01 or the equivalent, which coverage shall include personal injury, bodily injury and property damage for Premises Operations, Products and Completed Operations, Personal/Advertising Injury, Contractual Liability, Independent Contractor Liability, medical payments and Stop Gap/Employer's Liability. Coverage shall not exclude or contain sub-limits less than the minimum limits required, unless approved in writing by the County.

3. Business Automobile Liability

\$1,000,000.00	Minimum, per occurrence
\$2,000,000.00	Minimum, Annual Aggregate

Contractor shall provide auto liability coverage for owned, non-owned and hired autos using ISO Business Auto Coverage form CA 00 01 or the exact equivalent with a limit of no less than \$1,000,000 per accident. If Contractor owns no vehicles this requirement may be met through a non-owned auto Endorsement to the CGL policy.

4. Additional Insurance Requirements and Provisions

- a. All insurance policies shall provide coverage on an occurrence basis.
- b. Additional Insureds. Whatcom County, its departments, elected and appointed officials, employees, agents and volunteers shall be included as additional insureds on Contractor's and Contractor's subcontractors' insurance policies by way of endorsement for the full available limits of insurance required in this contract or maintained by the Contractor and subcontractor, whichever is greater.
- c. Primary and Non-contributory Insurance. Contractor shall provide primary insurance coverage and the County's insurance shall be non-contributory. Any insurance, self-insured retention, deductible, risk retention or insurance pooling maintained or participated in by the County shall be excess and non-contributory to Contractor's insurance.
- d. Waiver of Subrogation. The insurance policy shall provide a waiver of subrogation with respect to each insurance policy maintained under this Contract. When required by an insurer, or if a policy condition does not permit Contractor to enter into a pre-loss agreement to waive subrogation without an endorsement, then Contractor agrees to notify the insurer and obtain such endorsement. This requirement shall not apply to any policy which includes a condition expressly prohibiting waiver of subrogation by the insured or which voids coverage should the Contractor enter into such a waiver of subrogation on a pre-loss basis.
- e. Review of and Revision of Policy Provisions. Upon request, the Contractor shall provide a full and complete certified copy of all requested insurance policies to the County. The County reserves the right, but not the obligation, to revise any insurance requirement, including but not limited to limits, coverages and endorsements, or to reject any insurance policies which fail to meet

the requirements of this Contract. Additionally, the County reserves the right, but not the obligation, to review and reject any proposed insurer providing coverage based upon the insurer's financial condition or licensing status in Washington.

- f. **Verification of Coverage/Certificates and Endorsements.** The Contractor shall furnish the County with a certificate of insurance and endorsements required by this contract. The certificates and endorsements for each policy shall be signed by a person authorized by the insurer to bind coverage on its behalf. The certificate and endorsements for each insurance policy are to be on forms approved by the County prior to commencement of activities associated with the contract. The certificate and endorsements, and renewals thereof, shall be attached hereto as Exhibit "C". If Exhibit C is not attached, the Contractor must submit the certificate and endorsements required in this contract to the County prior to the commencement of any work on the contracted project. A certificate alone is insufficient proof of the required insurance; endorsements must be included with the certificate. The certificate of insurance must reflect the insurance required in this contract, including appropriate limits, insurance coverage dates, per occurrence, and in the description of operations, include the County project, Whatcom County, its departments, officials, employees, agents and volunteers as additional insureds, primary, non-contributory, and waiver of subrogation.
- g. The County must be notified immediately in writing of any cancellation of the policy, exhaustion of aggregate limits, notice of intent not to renew insurance coverage, expiration of policy or change in insurer carrier. Contractor shall always provide the County with a current copy of the certificate and endorsements throughout the duration of the contract.
- h. **No Limitation on Liability.** The insurance maintained under this Contract shall not in any manner limit the liability or qualify the liabilities or obligations of the Contractor to the coverage provided by such insurance, or otherwise limit the County's recourse to any remedy available at law or equity.
- i. **Payment Conditioned on Insurance and Failure to Maintain Insurance.** Compensation and/or payments due to the Contractor under this Contract are expressly conditioned upon the Contractor's compliance with all insurance requirements. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract. Payment to the Contractor may be suspended in the event of non-compliance, upon which the County may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the County on demand or offset against funds due the Contractor. Upon receipt of evidence of Contractor's compliance, payments not otherwise subject to withholding or set-off will be released to the Contractor.
- j. **Workers' Compensation.** The Contractor shall maintain Workers' Compensation coverage as required under the Washington State Industrial Insurance Act, RCW Title 51, for all Contractors' employees, agents and volunteers eligible for such coverage under the Industrial Insurance Act.
- k. Failure of the Contractor to take out and/or maintain required insurance shall not relieve the Contractor or subcontractors from any liability under the contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations concerning indemnification. The County does not waive any insurance requirements even in the event the certificate or endorsements provided by the Contractor were insufficient or inadequate proof of coverage but not objected to by the County. The County's failure to confirm adequate proof of insurance requirements does not constitute a waiver of the Contractor's insurance requirements under this Contract.
- l. **Availability of Contractor Limits.** If the Contractor maintains higher insurance limits than the minimums shown above, the County shall be insured for the full available limits, including Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this contract or whether any certificate furnished to the County evidences limits of liability lower than those maintained by the Contractor.
- m. **Insurance for Subcontractors.** If the Contractor subcontracts (if permitted in the contract) any portion of this Contract, the Contractor shall include all subcontractors as insureds under its policies or shall require separate certificates of insurance and policy endorsements from each subcontractor. Insurance coverages by subcontractors must comply with the insurance requirements of the Contractor in this contract and shall be subject to all of the requirements stated herein, including naming the County as additional insured.
- n. The Contractor agrees Contractor's insurance obligation shall survive the completion or termination of this Contract for a minimum period of three years.

34.3 Defense & Indemnity Agreement. To the fullest extent permitted by law, the Contractor agrees to indemnify, defend and hold the County and its departments, elected and appointed officials, employees, agents and volunteers, harmless from and against any and all claims, damages, losses and expenses, including but not limited to court costs, attorney's fees, and alternative dispute resolution costs, for any personal injury,

for any bodily injury, sickness, disease, or death and for any damage to or destruction of any property (including the loss of use resulting therefrom) which: 1) are caused in whole or in part by any error, act or omission, negligent or otherwise, of the Contractor, its employees, agents or volunteers or Contractor's subcontractors and their employees, agents or volunteers; or 2) directly or indirectly arise out of or occur in connection with performance of this Contract or 3) are based upon the Contractor's or its subcontractors' use of, presence upon, or proximity to the property of the County. This indemnification obligation of the Contractor shall not apply in the limited circumstance where the claim, damage, loss, or expense is caused by the sole negligence of the County.

Should a court of competent jurisdiction determine that this contract is subject to RCW 4.24.115, then in the event of concurrent negligence of the Contractor, its subcontractors, employees or agents, and the County, its employees or agents, this indemnification obligation of the Contractor shall be valid and enforceable only to the extent of the negligence of the Contractor, its subcontractors, employees, and agents. This indemnification obligation of the Contractor shall not be limited in any way by the Washington State Industrial Insurance Act, RCW Title 51, or by application of any other workmen's compensation act, disability benefit act or other employee benefit act, and the Contractor hereby expressly waives any immunity afforded by such acts.

It is further provided that no liability shall attach to the County by reason of entering into this contract, except as expressly provided herein. The parties specifically agree that this Contract is for the benefit of the parties only and this Contract shall create no rights in any third party. The County reserves the right, but not the obligation, to participate in the defense of any claim, damages, losses, or expenses, and such participation shall not constitute a waiver of Contractor's indemnity obligations under this Agreement.

In the event the Contractor enters into subcontracts to the extent allowed under this Contract, the Contractor's subcontractors shall indemnify the County on a basis equal to or exceeding Contractor's indemnity obligations to the County. The Contractor shall pay all attorney's fees and expenses incurred by the County in establishing and enforcing the County's rights under this indemnification provision, whether or not suit was instituted.

The Contractor agrees all Contractor's indemnity obligations shall survive the completion, expiration or termination of this Agreement. The foregoing indemnification obligations of the Contractor are a material inducement to County to enter into this Agreement and are reflected in the Contractor's compensation.

By signing this contract, the Contractor acknowledges that it has freely negotiated and agreed to the indemnification requirements to defend, indemnify and hold harmless the County from all claims and suits including those brought against the County by the Contractor's own employees, arising from this contract.

35.1 Non-Discrimination in Employment:

The County's policy is to provide equal opportunity in all terms, conditions and privileges of employment for all qualified applicants and employees without regard to race, color, creed, religion, national origin, sex, sexual orientation (including gender identity), age, marital status, disability, or veteran status. The Contractor shall comply with all laws prohibiting discrimination against any employee or applicant for employment on the grounds of race, color, creed, religion, national origin, sex, sexual orientation (including gender identity), age, marital status, disability, political affiliation, or veteran status, except where such constitutes a bona fide occupational qualification.

Furthermore, in those cases in which the Contractor is governed by such laws, the Contractor shall take affirmative action to insure that applicants are employed, and treated during employment, without regard to their race, color, creed, religion, national origin, sex, age, marital status, sexual orientation (including gender identity), disability, or veteran status, except where such constitutes a bona fide occupational qualification. Such action shall include, but not be limited to: advertising, hiring, promotions, layoffs or terminations, rate of pay or other forms of compensation benefits, selection for training including apprenticeship, and participation in recreational and educational activities. In all solicitations or advertisements for employees placed by them or on their behalf, the Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

The foregoing provisions shall also be binding upon any subcontractor, provided that the foregoing provision shall not apply to contracts or subcontractors for standard commercial supplies or raw materials, or to sole proprietorships with no employees.

35.2 Non-Discrimination in Client Services:

The Contractor shall not discriminate on the grounds of race, color, creed, religion, national origin, sex, age, marital status, sexual orientation (including gender identity), disability, or veteran status; or deny an individual or business any service or benefits under this Agreement unless otherwise allowed by applicable law; or subject an individual or business to segregation or separate treatment in any manner related to his/her/its receipt any service or services or other benefits provided under this Agreement unless otherwise allowed by applicable law; or deny an individual or business an opportunity to participate in any program provided by this Agreement unless otherwise allowed by applicable law.

36.1 Waiver of Noncompetition:

Contractor irrevocably waives any existing rights which it may have, by contract or otherwise, to require another person or corporation to refrain from submitting a proposal to or performing work or providing supplies to the County, and contractor further promises that it will not in the future, directly or indirectly, induce or solicit any person or corporation to refrain from submitting a bid or proposal to or from performing work or providing supplies to the County.

36.2 Conflict of Interest:

If at any time prior to commencement of, or during the term of this Agreement, Contractor or any of its employees involved in the performance of this Agreement shall have or develop an interest in the subject matter of this Agreement that is potentially in conflict with the County's interest, then Contractor shall immediately notify the County of the same. The notification of the County shall be made with sufficient specificity to enable the County to make an informed judgment as to whether or not the County's interest may be compromised in any manner by the existence of the conflict, actual or potential. Thereafter, the County may require the Contractor to take reasonable steps to remove the conflict of interest. The County may also terminate this contract according to the provisions herein for termination.

37.1 Administration of Contract:

This Agreement shall be subject to all laws, rules, and regulations of the United States of America, the State of Washington, and political subdivisions of the State of Washington. The Contractor also agrees to comply with applicable federal, state, county or municipal standards for licensing, certification and operation of facilities and programs, and accreditation and licensing of individuals.

The County hereby appoints, and the Contractor hereby accepts, the Whatcom County Executive, and his or her designee, as the County's representative, hereinafter referred to as the Administrative Officer, for the purposes of administering the provisions of this Agreement, including the County's right to receive and act on all reports and documents, and any auditing performed by the County related to this Agreement. The Administrative Officer for purposes of this agreement is:

Sue Sullivan, Environmental Health Manager
Whatcom County Health Department

37.2 Notice:

Any notices or communications required or permitted to be given by this Contract must be (i) given in writing and (ii) personally delivered or mailed, by prepaid, certified mail or overnight courier, or transmitted by electronic mail transmission (including PDF), to the party to whom such notice or communication is directed, to the mailing address or regularly-monitored electronic mail address of such party as follows:

Sue Sullivan, Environmental Health Manager
Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225
360-778-6026
SSullivan@co.whatcom.wa.us

Ashley Buerger, Executive Director
Road2Home
PO Box 3091
Bellingham, WA 98227
360-441-1519
ashley@road2home.org

Any such notice or communication shall be deemed to have been given on (i) the day such notice or communication is personally delivered, (ii) three (3) days after such notice or communication is mailed by prepaid certified or registered mail, (iii) one (1) working day after such notice or communication is sent by overnight courier, or (iv) the day such notice or communication is sent electronically, provided that the sender has received a confirmation of such electronic transmission. A party may, for purposes of this Agreement, change his, her or its address, email address or the person to whom a notice or other communication is marked to the attention of, by giving notice of such change to the other party pursuant to this Section.

37.3 If agreed by the parties, this Contract may be executed by Email transmission and PDF signature and Email transmission and PDF signature shall constitute an original for all purposes.

38.1 Certification of Public Works Contractor's Status under State Law:

If applicable, Contractor certifies that it has fully met the responsibility criteria required of public works contractors under RCW 39.04.350 (1), which include: (a) having a certificate of registration in compliance with RCW 18.27; (b) having a current state unified business identifier number; (c) if applicable, having industrial insurance coverage for its employees working in Washington as required in Title 51 RCW, an employment security department number as required in Title 50 RCW, and a state excise tax registration number as required in Title 82 RCW; and (d) not being disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

- 38.2 Certification Regarding Federal Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions:
If applicable, the Contractor further certifies, by executing this contract, that neither it nor its principles is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or Agency.

The Contractor also agrees that it shall not knowingly enter into any lower tier covered transactions (a transaction between the Contractor and any other person) with a person who is proposed for debarment, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, and the Contractor agrees to include this clause titled "Certification Regarding Federal Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction" without modification, in all lower tier covered transactions and in all solicitations for lower tier transactions.

The "Excluded Parties List System in the System for Award Management (SAM) website is available to research this information at WWW.SAM.GOV. Contractor shall immediately notify Whatcom County if, during the term of this Contract, Contractor becomes debarred.

38.3 E-Verify:

The E-Verify contractor program for Whatcom County applies to contracts of \$100,000 or more and sub contracts for \$25,000 or more if the primary contract is for \$100,000 or more. If applicable, Contractor represents and warrants that it will, for at least the duration of this contract, register and participate in the status verification system for all newly hired employees. The term "employee" as used herein means any person that is hired to perform work for Whatcom County. As used herein, "status verification system" means the Illegal Immigration Reform and Immigration Responsibility Act of 1996 that is operated by the United States Department of Homeland Security, also known as the E-Verify Program, or any other successor electronic verification system replacing the E-Verify Program. Contractor/Seller agrees to maintain records of such compliance and, upon request of the County, to provide a copy of each such verification to the County. Contractor/Seller further represents and warrants that any person assigned to perform services hereunder meets the employment eligibility requirements of all immigration laws of the State of Washington. Contractor/Seller understands and agrees that any breach of these warranties may subject Contractor/Seller to the following: (a) termination of this Agreement and ineligibility for any Whatcom County contract for up to three (3) years, with notice of such cancellation/termination being made public. In the event of such termination/cancellation, Contractor/Seller would also be liable for any additional costs incurred by the County due to contract cancellation or loss of license or permit." Contractor will review and enroll in the E-Verify program through this website: www.uscis.gov

Series 40-49: Provisions Related to Interpretation of Agreement and Resolution of Disputes

40.1 Modifications:

Either party may request changes in the Agreement. Any and all agreed modifications, to be valid and binding upon either party, shall be in writing and signed by both of the parties.

40.2 Contractor Commitments, Warranties and Representations:

Any written commitment received from the Contractor concerning this Agreement shall be binding upon the Contractor, unless otherwise specifically provided herein with reference to this paragraph. Failure of the Contractor to fulfill such a commitment shall render the Contractor liable for damages to the County. A commitment includes, but is not limited to, any representation made prior to execution of this Agreement, whether or not incorporated elsewhere herein by reference, as to performance of services or equipment, prices or options for future acquisition to remain in effect for a fixed period, or warranties.

41.1 Severability:

If any term or condition of this contract or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this contract are declared severable.

41.2 Waiver:

Waiver of any breach or condition of this contract shall not be deemed a waiver of any prior or subsequent breach. No term or condition of this contract shall be held to be waived, modified or deleted except by an instrument, in writing, signed by the parties hereto. The failure of the County to insist upon strict performance of any of the covenants and agreements of this Agreement, or to exercise any option herein conferred in any one or more instances, shall not be construed to be a waiver or relinquishment of any such, or any other covenants or agreements, but the same shall be and remain in full force and effect.

42.1 Disputes:

a. General:

Differences between the Contractor and the County, arising under and by virtue of the Contract Documents, shall be brought to the attention of the County at the earliest possible time in order that such matters may be settled or other appropriate action promptly taken. Except for such objections as are made of record in the manner hereinafter specified and within the time limits stated, the records, orders, rulings, instructions, and decisions of the Administrative Officer shall be final and conclusive.

b. Notice of Potential Claims:

The Contractor shall not be entitled to additional compensation which otherwise may be payable, or to extension of time for (1) any act or failure to act by the Administrative Officer or the County, or (2) the happening of any event or occurrence, unless the Contractor has given the County a written Notice of Potential Claim within ten (10) days of the commencement of the act, failure, or event giving rise to the claim, and before final payment by the County. The written Notice of Potential Claim shall set forth the reasons for which the Contractor believes additional compensation or extension of time is due, the nature of the cost involved, and insofar as possible, the amount of the potential claim. Contractor shall keep full and complete daily records of the work performed, labor and material used, and all costs and additional time claimed to be additional.

c. Detailed Claim:

The Contractor shall not be entitled to claim any such additional compensation, or extension of time, unless within thirty (30) days of the accomplishment of the portion of the work from which the claim arose, and before final payment by the County, the Contractor has given the County a detailed written statement of each element of cost or other compensation requested and of all elements of additional time required, and copies of any supporting documents evidencing the amount or the extension of time claimed to be due.

d. Arbitration:

Other than claims for injunctive relief, temporary restraining order, or other provisional remedy to preserve the status quo or prevent irreparable harm, brought by a party hereto (which may be brought either in court or pursuant to this arbitration provision), and consistent with the provisions hereinabove, any claim, dispute or controversy between the parties under, arising out of, or related to this Contract or otherwise, including issues of specific performance, shall be determined by arbitration in Bellingham, Washington, under the applicable American Arbitration Association (AAA) rules in effect on the date hereof, as modified by this Agreement. There shall be one arbitrator selected by the parties within ten (10) days of the arbitration demand, or if not, by the AAA or any other group having similar credentials. Any issue about whether a claim is covered by this Contract shall be determined by the arbitrator. The arbitrator shall apply substantive law and may award injunctive relief, equitable relief (including specific performance), or any other remedy available from a judge but shall not have the power to award punitive damages. Each Party shall pay all their own costs, attorney fees and expenses of arbitration and the parties shall share equally in the Arbitrator's fees and costs. The decision of the arbitrator shall be final and binding and an order confirming the award or judgment upon the award may be entered in any court having jurisdiction. The parties agree that the decision of the arbitrator shall be the sole and exclusive remedy between them regarding any dispute presented or pled before the arbitrator. At the request of either party made not later than forty-five (45) days after the arbitration demand, the parties agree to submit the dispute to nonbinding mediation, which shall not delay the arbitration hearing date; provided, that either party may decline to mediate and proceed with arbitration.

Any arbitration proceeding commenced to enforce or interpret this Contract shall be brought within six years after the initial occurrence giving rise to the claim, dispute, or issue for which arbitration is commenced, regardless of the date of discovery or whether the claim, dispute, or issue was continuing in nature. Claims, disputes, or issues arising more than six years prior to a written request or demand for arbitration issued under this Contract are not subject to arbitration.

- e. The parties may agree in writing signed by both parties that a claim or dispute may be brought in Whatcom County Superior Court rather than mediation or arbitration.

Unless otherwise specified herein, this Contract shall be governed by the laws of Whatcom County and the State of Washington.

43.1 Venue and Choice of Law:

In the event that any litigation should arise concerning the construction or interpretation of any of the terms of this Agreement, the venue of such action of litigation shall be in the courts of the State of Washington in and for the County of Whatcom. This Agreement shall be governed by the laws of the State of Washington.

44.1 Survival:

The provisions of paragraphs 11.1, 11.2, 11.3, 21.1, 22.1, 30.1, 31.1, 31.2, 32.1, 33.1, 34.2, 34.3, 36.1, 40.2, 41.2, 42.1, and 43.1, if utilized, shall survive, notwithstanding the termination or invalidity of this Agreement for any reason.

45.1 Entire Agreement:

This written Agreement, comprised of the writings signed or otherwise identified and attached hereto, represents the entire Agreement between the parties and supersedes any prior oral statements, discussions or understandings between the parties.

EXHIBIT "A"
(SCOPE OF WORK)

I. Background

The Whatcom County COVID-19 Temporary Housing Facility (Facility) houses guests in need of isolation or quarantine who have no other option to accomplish such. On-site staff are needed 24/7 when guests are residing to monitor and protect the Facility and the welfare of its guests, as well as to ensure that necessary daily operational issues are addressed. Accordingly, Road2Home (R2H) will provide 24/7 staffing and administrative oversight of the Facility, as set forth below.

II. Statement of Work

R2H will oversee daily operations by providing staffing to the Facility. Facility staff provided by R2H will include a Supervisor, supported by a Program Manager, who will provide guidance and consultation as necessary, for administration of the Facility.

The Supervisor will develop staffing schedules and provide on-site guidance to staff. As needed, the Supervisor will consult with the Program Manager on best practices for managing daily staff activities as well as any concerns or issues that may arise.

Personal protective equipment and other infection-control practices will be employed at all times, as necessary. The County will provide infection control guidelines for use by all staff at the Facility.

Staffing patterns and shifts will consist of no less than one R2H staff on-site during all hours of the day. It is expected that additional R2H personnel will be added as the Facility census increases. R2H will ensure adequate staffing levels and shifts to ensure consistent coordination of activities, staff roles, supervision and other matters necessary to provide effective services and oversight of the Facility. R2H shall assume no responsibility or liability for the Facility, which shall be the sole and exclusive responsibility of the County.

Security services will be on-site and will be provided by a separate, private firm. R2H will be responsible for coordinating all personnel and contractors assigned to the Facility.

The County or the owner of the motel housing units will be responsible for general repairs and maintenance as well as providing for utility services.

Following are duties expected to be provided by on-site R2H personnel, but are not inclusive and may be altered as programming requires. These tasks are intended to ensure the functioning of the daily operations of the Facility. It is not expected that R2H staff will provide any hands-on assistance with guests, but instead support guests with the following activities.

1. Assist with delivery and pick-up of daily meals to Facility.
2. Assist with linen exchanges and laundry services to Facility.
3. Assist with directing regular waste disposal from each housing unit.
4. Prepare vacant rooms that have been cleaned and sanitized for the next guest by making beds and providing towels and toiletries.
5. Assist with communication connections between guests and their healthcare providers if a resident is unable to accomplish this independently.
6. Guide and direct guests on appropriate behaviors that promote sufficient social distancing, isolation, quarantine, hygiene, and sanitation.
7. Manage and administer the "Support Assistance Program", outlined below and more fully described in Exhibit "D". This Program may be used to support guests in sustaining their current housing in the Facility or for transition assistance upon exit from the Facility. The issuance of gift cards, motel stays, or other assistance will follow the Support Assistance Program policy, attached herein as Exhibit D. A form is attached to this contract for use in documenting distribution of funds through the Support Assistance Program.
8. Coordinate with on-site services that may include sanitation of housing units upon discharge of a resident, security practices and concerns, on-site healthcare provision, and access/egress of the property/facility.

9. Assist coordination with guests to access help for housing unit issues that may include Wi-Fi access, repairs and maintenance, or communications problems that may arise.
10. Assist with and initiate as needed scheduling of on-site staff at the Facility.

The County will provide funding and food items to R2H for distribution via commissary items and/or gift cards to grocery stores to be utilized as support assistance for guests. An amount of \$5/day may be 'earned' by each guest who demonstrates compliance with Facility rules. Guests may use this financial support assistance as credit for 'purchases' from the commissary, or for grocery store purchases if they are able to have items delivered to the Facility. Any remaining credit will not be given to guests upon discharge. R2H will work with the County to ensure that prices set for the commissary items are at a level that will serve as effective encouragement to comply with Facility rules. Modifications to this procedure can be accomplished through written agreement from the County as necessary to create the most effective support to guests.

The County will provide a manual of Policies and Procedures covering operational issues for the Facility that will be on-site and available as reference. It is expected that all personnel will follow the policies and procedures outlined, and work directly with the County on any concerns that may arise as a result. It is the County's goal to support R2H and its employees in the performance of their duties to the greatest extent possible.

R2H will work with the County to ensure compliance with applicable terms and conditions of FEMA's Public Assistance Program and Policy Guide https://www.fema.gov/sites/default/files/documents/fema_pappg-v4-updated-links_policy_6-1-2020.pdf and the County's FEMA Public Assistance grant contract passed through the Washington State Military Department, state contract #D20-245 incorporated herein by reference.

R2H will work with the County to adjust the budget as necessary in order to assure optimal staffing levels.

EXHIBIT "B" **COMPENSATION**

- I. **Source of Funding:** Funding for this contract may not exceed \$159,275. Funds under the contract are made available by a grant awarded by the Federal Emergency Management Agency (FEMA), passed through the Washington State Military Department (Funding Source Agreement #FEMA-4481-DR-WA) (CFDA 97.036, Public Assistance). Contractor is considered a subrecipient for federal auditing and compliance purposes. Any ineligible costs under FEMA will be charged to other funding sources such as American Rescue Plan Act funding or unrestricted funding sources. The budget for this contract is as follows:

Item	Documentation Required with Invoice	Budget
Personnel (wages and benefits)	Expanded GL report for the period.	\$131,834
Legal Fees (Attorney consultations regarding staff medical and religious vaccine exemptions, if necessary per State mandates)	GL Detail	\$1,650
Insurance		\$5,227
Mileage	Mileage log to include: name of staff member, date of travel, starting point and destination of travel, number of miles traveled, federal reimbursement rate (per www.gsa.gov) and a brief description of the purpose of travel	\$84
Support Assistance Program	GL Detail or credit card statement and receipts showing documentation to support dispersals.	\$6,000
SUBTOTAL		\$144,795
Indirect @ 10%		\$14,480
TOTAL		\$159,275

II. Invoicing:

- The Contractor shall submit itemized invoices by location on a monthly basis in a format approved by the County. The Contract number shall be included on all billings or correspondence. **Final invoices must be submitted by January 7, 2022.**
- The Contractor shall submit invoices to HL-BusinessOffice@co.whatcom.wa.us.
- Payment by the County will be considered timely if it is made within 30 days of the receipt and acceptance of billing information from the Contractor. The County may withhold payment of an invoice if the Contractor submits it more than 30 days after the expiration of this contract.
- Invoices must include the following statement, with an authorized signature and date:
I certify that the materials have been furnished, the services rendered, or the labor has been performed, as described on this invoice.
- Duplication of Billed Costs or Payments for Service:** The Contractor shall not bill the County for services performed or provided under this contract and the County shall not pay the Contractor, if the Contractor has been or will be paid by any other source, including grants, for those costs used to perform or provide the services in this contract. The Contractor is responsible for any audit exceptions or disallowed amounts paid as a result of this contract.

EXHIBIT "C"
(CERTIFICATE OF INSURANCE)

“Exhibit D”
(Support Assistance Program)

Guests at the Whatcom County COVID-19 Temporary Housing Facility (“Facility”) are eligible to receive recognition for their successful compliance with health directives for isolation and/or quarantine. Guests who demonstrate compliance will receive \$5 per day credit on their “account”.

The County will work with Road2Home (R2H) to monitor the support assistance program and will modify earned credit limits if necessary, in order to optimize guests’ compliance with infection-control behavior guidelines.

During the guest’s stay at the Facility, s/he can use earned credit to “purchase” items from the commissary. These will include food snacks, drinks or possible other items for use and consumption during the guest’s stay.

R2H will manage the support assistance program. The County will work with R2H to price commissary items at a rate that will serve as effective encouragement for the guest to remain compliant with infection-control behaviors.

Accounting for the program will include the following procedures:

1. R2H staff will maintain an up-to-date ledger, with de-identified Client ID, showing:
 - a. Each guest’s earned credit per day;
 - b. Each guest’s “purchase” against his/her credit;
 - c. Each guest’s total credit balance;
 - d. Documentation of gift card issuance(s) and dollar amount of each;
 - e. Close out of each guest’s “account”.

ADDITIONAL SUPPORT ASSISTANCE:

Support Assistance may also be provided to guests who have immediate unmet needs. Transition assistance must be reasonable and necessary to meet a guest’s immediate needs for continued health stabilization and welfare.

Allowable items for assistance include, but are not limited to:

1. Clothing
2. Transportation to include bus passes, taxi fares
3. Rental Assistance
4. Driver’s licenses or Government issued ID
5. Medications
6. Other as pre-approved by County

Upon final closure of Facility operations, financial reconciliation will be completed by R2H, and a final invoice for reimbursement will be issued to the County. The attached form will be completed for these expenditures of Support Assistance.

Contractor:		Road2Home		Contract:		Temporary Housing Facility		Period:	
Whatcom County Support Assistance Documentation									
Paid To (Attach receipts for each purchase)	Date	Cost	Goods/Services Purchased (from Allowable Costs list – if other, please specify)	Client ID	Total \$ To Client this Year	Service Need	No Other Funding Available?	Administrative Review	
Support Assistance Fund Total for Period:					\$				
VENDOR'S CERTIFICATE. I hereby certify under penalty of perjury that the items and totals listed herein are proper charges for materials, merchandise or services furnished and that all goods furnished and/or services rendered have been provided without discrimination:									
NAME:			SIGNATURE:				DATE:		

“Exhibit E”
(Special Terms and Conditions for FEMA Funded Contracts)

The terms included in this agreement and any additional agreements herein are a result of the grant funding requirements.

1. AUDIT

Contractor shall maintain internal controls providing reasonable assurance it is managing federal awards in compliance with laws, regulations, and provisions of contracts or grant agreements that could have a material effect on each of its federal programs; and prepare appropriate financial statements, including a schedule of expenditures of federal awards.

If the Contractor is a subrecipient and expends \$750,000 or more in federal awards from any and/or all sources in any fiscal year, the Contractor shall procure and pay for a single audit or a program-specific audit for that fiscal year.

2. LAWS

The Contractor shall comply with all applicable laws, ordinances, codes, regulations, and policies of local, state, and federal governments, as now or hereafter amended, including, but not limited to:

United States Laws, Regulations and Circulars (Federal)

(Subrecipients only) Contractor shall comply with Uniform Administrative Requirements, Cost Principles, and Audit Requirement for Federal Award, 2 CFR 200.

(Subrecipients only) Contractor shall comply with the applicable requirements of 2 CFR Part 200, including any future amendments to 2 CFR Part 200, and any successor or replacement Office of Management and Budget (OMB) Circular or regulation.

3. RECORDS MAINTENANCE

The Contractor shall maintain books, records, documents, data and other evidence relating to this contract and performance of the services described herein, including but not limited to accounting procedures and practices that sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this contract.

The Contractor shall maintain records that identify, in its accounts, all federal awards received and expended and the federal programs under which they were received, by Catalog of Federal Domestic Assistance (CFDA) title and number, award number and year, name of the federal agency, and name of the pass-through entity.

The Contractor shall retain such records for a period of six (6) years following the date of final payment.

If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

4. COMPLIANCE WITH THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

- a. *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- b. *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

- c. *Withholding for unpaid wages and liquidated damages.* The Contractor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

5. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

a. Clean Air Act

The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. The contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to the Washington State Military Department, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

b. Federal Water Pollution Control Act

The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. The contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to the Washington State Military Department, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

6. BYRD ANTI-LOBBYING AGREEMENT

Contractors who apply or bid for an award of more than \$100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency."

"APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure."

The Contractor, Road2Home, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date"



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-616

File ID:	AB2021-616	Version:	1	Status:	Agenda Ready
File Created:	10/22/2021	Entered by:	FBurkhar@co.whatcom.wa.us		
Department:	Sheriff's Office	File Type:	Resolution		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: jgargett@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution adopting the Whatcom County Natural Hazards Mitigation Plan

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached proposed resolution and plan

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Resolution, 01-Section 1 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 02-Section 2 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03A-Bellingham-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03B-Blaine-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03C-Everson-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03D-Ferndale-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03E-WCFCZD-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03F-LWWSD-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03G-Lynden-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03H-MSD-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03I-Nooksack-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03J-POB-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03K-Sumas-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 03L-Whatcom-Section 3 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf, 04-Section 4 - 20211025 Whatcom Co NHMP-FINAL For County Resolution.pdf

PROPOSED BY: _____

INTRODUCED: _____

RESOLUTION NO. _____

ADOPTING THE WHATCOM COUNTY NATURAL HAZARDS MITIGATION PLAN

WHEREAS, identification of natural hazards and development of plans to reduce or eliminate the associated long term risk to human life and property results in a safer community; and

WHEREAS, the Disaster Mitigation Act of 2000 (P.L. 106-390 / 44 CFR Parts 201.6) reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur; and

WHEREAS, states, communities, and special purpose districts must have an approved mitigation plan in place prior to receiving post-disaster Hazard Mitigation Grant Program (HMGP) funds; and

WHEREAS, the planning process is intended to facilitate cooperation between state and local authorities and encourages local input; and

WHEREAS, Whatcom County participated in a collaborative hazard mitigation planning and up-date process;

NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Council that the Whatcom County Natural Hazards Mitigation Plan, a multi-jurisdictional plan dated September 30, 2021 and attached hereto as Exhibit A, is hereby adopted.

APPROVED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Council Chair

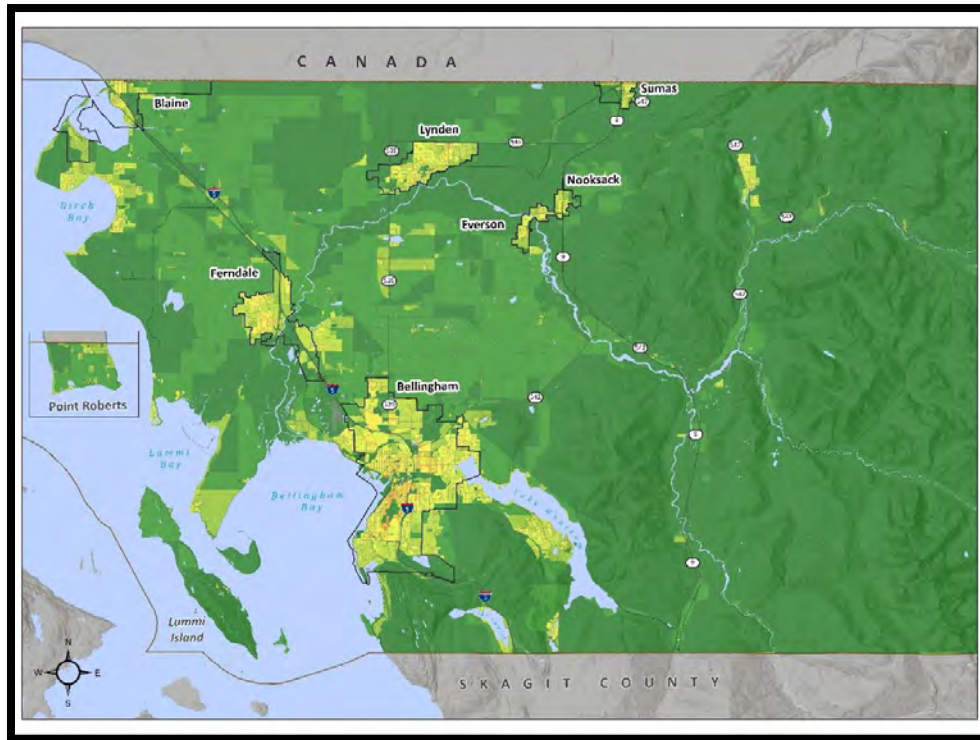
APPROVED AS TO FORM:

/s/ Brandon Waldron (via e-mail 10/22/21)/FB
Civil Deputy Prosecutor



Whatcom County

Natural Hazards Mitigation Plan



**A MULTI-HAZARD, MULTI-JURISDICTIONAL PLAN DEVELOPED FOR
THE BENEFIT OF ALL CITIZENS AND GOVERNMENTAL
JURISDICTIONS WITHIN WHATCOM COUNTY**

Prepared by:
Whatcom County Sheriff's Office Division of Emergency Management
and
The Resilience Institute of Western Washington University

September 30, 2021

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ACKNOWLEDGMENTS

Funding Acknowledgements

Whatcom County Sheriff's Office Division of Emergency Management contracted with Western Washington University's Resilience Institute to develop the 2021 Whatcom County Natural Hazards Mitigation Plan Update. Funding for this project was made possible through funding provided by the U.S. Department of Homeland Security.

Geographic Information Systems Maps

The maps for the 2021 update of the Plan were created by Western Washington University's Resilience Institute, with support from the university's Spatial Institute, unless indicated otherwise.

The datasets used in the maps in this Plan were from the following sources:

- Washington Department of Natural Resources – Wildland-Urban Interface (2019), Boulder Creek Fault Zone Seismic Scenario (2017), and Liquefaction Susceptibility (2010)
- Washington Geological Survey – Landslide Inventory (2020)
- Federal Emergency Management Agency – National Flood Hazard Layer (2019)
- Whatcom County – Tsunami Inundation (contour polygons, 2020)
- U.S. Geological Society – Mount Baker Volcano Lahar and Blast Zone Boundaries (1995)
- Whatcom County Planning and Development Services – City Limits, County Boundaries, Urban Growth Area
- Washington State Department of Transportation – Railroads, Roads, Highway
- Washington State Department of Natural Resources -- Tsunami Hazard maps for North Puget Sound (2021)



AUTHORITY

This Plan is adopted by:

Entity	Approving Authority	Date Adopted	Ordinance
City of Bellingham	Mayor Seth Fleetwood & City Council Members		
Port of Bellingham	Executive Director Rob Fix & Port Commission		
City of Blaine	Blaine City Council		
City of Everson	Mayor John Perry & City Council Members		
City of Ferndale	Mayor Greg Hansen & City Council Members		
Meridian School District	Dr. James Everett, Superintendent		
City of Lynden	Mayor Scott Korthuis & City Council Members		
City of Nooksack	Mayor Jim Ackerman & City Council Members		
City of Sumas	Chamber President Ron Fadden & City Chamber Members		
Whatcom County	County Executive Satpal Sidhu & Whatcom County Council Members		
Whatcom County Flood Control Zone District	County Executive Satpal Sidhu & Whatcom County Council Members		
Lake Whatcom Water & Sewer District	District Board of Commissioners		



INTRODUCTION

In 2021, Whatcom County Sheriff's Office, Division of Emergency Management (DEM) undertook the process of updating the *Whatcom County Natural Hazards Mitigation Plan* (cited herein as "Plan"). Natural hazards mitigation process was instigated by the Code of Federal Regulation (CFR) 201.6 (see Appendix A), enacted in October 2002 and amended in September 2004. The purpose of the Plan is to facilitate a net reduction in the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during immediate recovery from a disaster.

Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5165, as amended by the Disaster Mitigation Act of 2000 (DMA) (P.L. 106-390), provides for States, Tribes, and local governments to undertake a risk-based approach to reducing risks to natural hazards through mitigation planning. The National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 *et seq*, reinforced the need and requirement for mitigation plans, linking flood mitigation assistance programs to State, Tribal and Local Mitigation Plans.

After a presidential major disaster declaration, mitigation funding becomes available. The amount is based on a percentage of the total federal grants awarded under the Public Assistance and Individuals and Households Programs for the entire disaster. Projects are funded with a combination of federal, state, and local funds. Information on this program and application process is disseminated at public briefings and by other means.

Section 322 of the amended Stafford Act essentially states that as a condition of receiving a disaster loan or grant:

"The state and local government(s) shall agree that natural hazards in the areas affected shall be evaluated and appropriate action taken to mitigate such hazards, including safe land-use and construction practices. For disasters declared after November 1, 2004, all potential applicants (sub-grantees) must have either their own, or be included in a regional, locally adopted and FEMA approved all hazard mitigation plan in order to be eligible to apply for mitigation grant funds."

The regulations governing the mitigation planning requirements for local mitigation plans are published under 44 CFR §201.6. Under 44 CFR §201.6, local governments must have a FEMA-approved Local Mitigation Plan in order to apply for and/or receive project grants under the following hazard mitigation assistance programs:

- **Hazard Mitigation Grant Program (HMGP).**

The Hazard Mitigation Grant Program (HMGP) provides funds to States, Territories,



Indian Tribal governments, local governments, and eligible private non-profits (PNPs) following a Presidential major disaster declaration.

- **Pre-Disaster Mitigation (PDM)**
- **Flood Mitigation Assistance (FMA)**

The Pre-Disaster Mitigation (PDM) Program and Flood Mitigation Assistance (FMA) programs provide funds annually to States, Territories, Indian Tribal governments, and local governments. Although the statutory origins of the programs differ, both share the common goal of reducing the risk of loss of life and property due to natural hazards.

Mitigation is the cornerstone of emergency management. It is an integral part of the ongoing effort to lessen the impacts disasters can have on people's lives and property through damage prevention and flood insurance. The impact on human lives and communities is lessened through measures such as building safely within the floodplain or removing homes from the floodplain altogether; engineering buildings and infrastructures to withstand earthquakes; and creating and enforcing effective building codes to protect properties from floods, hurricanes, and other natural hazards.

The mitigation plan contains a five-year action plan matrix, background on the purpose and methodology used to develop the mitigation plan, profiles of Whatcom County and participating jurisdictions, sections on the natural and technological that occur within the county, and multiple appendices.





WHATCOM COUNTY BACKGROUND

Whatcom County, the northwestern most county of Washington State, comprises an area of 2,120 square miles. It is bordered to the north by Canada and to the west by the Strait of Georgia, a deep-water ship transit, and another waterway called the Rosario Strait. The eastern half of Whatcom County is composed of the North Cascades Mountain range, which occupies roughly two-thirds of the entire County. No Whatcom County roads that originate in the western half of the County connect to the eastern half; towns in eastern Whatcom County can only be accessed by driving more than 60 miles through Skagit County to the south. An unusual characteristic of Whatcom County is that not all of its populated areas are contiguous with the mainland part of the County; these areas include Point Roberts and Lummi Island. Only 4.5% of the land area is incorporated, while the majority is unincorporated. According to the U.S. Census Bureau, the population of Whatcom County grew from an estimated 209,790 in 2015, to an estimated 228,000 in 2020, an 8% increase. Most of this growth, 70%, occurred within the incorporated areas of Whatcom County. Development has followed a similar pattern.

The Washington State Growth Management Act (GMA) was adopted by State Legislature in 1990 (Revised Code of Washington Chapter 36.70A) to address the threat that uncoordinated and unplanned growth posed to the environment, sustainable economic development, and the quality of life in Washington, including the minimizing the risks natural hazards pose to local communities. The GMA requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital investments and development regulations. According to the code, critical areas include frequently flooded areas and geologically hazardous areas, natural hazards specifically addressed in the Whatcom County Natural Hazard Mitigation Plan. The GMA regulates development in these areas and has the potential to affect hazard vulnerability and exposure at the local level. Whatcom County and its planning partners are in compliance with the provisions of the GMA and other regulations (e.g., Endangered Species Act, Clean Water Act, Shoreline Management Act, and the Washington State Building Code) that limit development in frequently flooded and geologically hazardous areas.

The Natural Hazard Mitigation Plan is constantly under review and efforts are made to reflect changes in priority. For example, in 2017 the Whatcom County Council added to its Critical Areas Chapter paragraph "16.16.350 Volcanic Hazard Areas-Standards." While not denying the construction of structures in a lahar zone, this paragraph requires deliberate evaluation of the possible lahar path and development of an emergency evacuation plan with life-saving action as the primary consideration.



The NHMP both informs and is informed by Whatcom County Planning and Development policies and regulations and other planning documents, including the Whatcom County Comprehensive Plan (November 2020; specifically, Chapter 2 Land Use and Chapter 10 Environment). While development has continued to occur within Whatcom County, the Natural Hazards Mitigation Plan has been used as one of the documents to determine the impacts that the hazard(s) may have in areas that are being developed.

An understanding of the geography, weather, industries, and characteristics of Whatcom County is critical to an ability to mitigate the natural hazards identified in this Plan. Some of these characteristics are discussed below.

A. CLIMATE

Annual precipitation varies greatly, depending on elevation, as follows:

1. Lowlands: rainfall varies from 30 to 40 inches
2. East toward the Cascade Mountains: precipitation increases
3. Near Mount Baker (elevation 10,778 feet): 140 inches, snow is possible year round

B. GEOGRAPHY

Major geographic features of Whatcom County are grouped as follows:

1. **Lowlands (West of Cascade Foothills):** These lowlands are part of the Fraser/Nooksack river-deltas system. This system runs north from the Chuckanut Mountains to the mouth of the Fraser River, where Vancouver, British Columbia (B.C.) is sited. To the south (beyond the Chuckanut Mountains, in Skagit County) is the delta of another great river, the Skagit River. These river deltas are important to Whatcom County because of their related flood, earthquake, and volcano hazards.
2. **Mount Baker Foothill Communities:** Scattered through the rural area along the Valley Highway (Highway 9) and up through the foothills along the Mount Baker Highway (State Route [SR] 542), crossing all three forks of the Nooksack River, are the Mount Baker Foothill communities of Van Zandt, Acme, Wickersham, Welcome, Kendall, Maple Falls, and Glacier.
3. **Nooksack River:** There are more than 1,325 miles of stream in the Nooksack River, its tributaries, and associated independent streams. The river originates in the mountains as three forks (North, Middle, and South) that converge near Deming. Its watershed



basin comprises most of the County's eastern lands. The river corridor links the various landscapes of Whatcom County.

4. **Coast and Islands:** There are 134 miles of seacoast in Whatcom County: 51% is steep, eroding sea bluff (such as the mountain view coast at Birch Point); 16% is rocky shoreline, which includes parts of Lummi Island; 17% is accreting (building up or extending shoreline); and 5% is estuarine shore.
5. **Lakes:** There are 245 lakes in Whatcom County: four large reservoirs inside the Federal Lands (Ross, Diablo, Gorge, and Baker Lakes) and two large natural lakes in the Chuckanut region (Lake Whatcom and Lake Samish). Seven lakes are more than 100 acres in size:
 - Whatcom (5,000 acres)
 - Samish (825 acres)
 - Terrell (440 acres)
 - Silver (185 acres)
 - Padden (150 acres)
 - Wiser (125 acres)
 - Judson (112 acres)
6. **The North Cascades Mountains:** Roughly two-thirds of eastern Whatcom County is federally managed land contained in the North Cascades Mountains, which is controlled by the U.S. Forest Service and the U.S. National Park Service. The Cascades extend from Canada's Fraser River south beyond Oregon. They shape the climate and vegetation over much of the Pacific Northwest.
 - The Mount Baker-Snoqualmie National Forest lies east of the foothills and west of the "North Unit" of North Cascades National Park.
 - The North Cascades National Park is located adjacent to the east portion of the Mount Baker-Snoqualmie National Forest.
 - East of the North Cascades National Park is the Pasayten Wilderness, administered through the Okanogan National Forest. This is a road-less area.
7. **National Forest and Parks.** There are about 460,000 acres of National Forest Lands and about 400,000 acres of National Park Lands within Whatcom County. Three roads



connect western Whatcom County with the federal lands:

- The Mount Baker Highway (SR 542) provides access to the Mount Baker Recreation Area.
- The Middle Fork Road (a secondary, more primitive entrance) leads to the hiking and camping region on the south and west sides of Mount Baker, including the Twin Sisters area.
- Highway 20 (through Skagit County) is the principal access to Baker Lake, as well as to North Cascades National Park.

Two parts of the North Cascades National Park Complex are located in Whatcom County:

- The North Unit (Picket Range) – roadless, primitive, high country .
- Ross Lake National Recreation Area – Seattle City Light with three dams on the Skagit River.

C. TRANSPORTATION

1. Major Roads

- Interstate 5 (I-5), which connects Mexico to Canada, runs north and south through Whatcom County.
- SR 9 traverses north and south, crossing the South and North Forks of the Nooksack River.
- Mount Baker Highway (SR 542), from Bellingham, intersects SR 9 and winds east to Mount Baker.
- Chuckanut Drive (SR 11), from Bellingham, south along the coast to Skagit County

2. Marinas

- In Bellingham, Squalicum Harbor is the second largest marina in Puget Sound. More than 1,800 pleasure craft, commercial boats, and fishing vessels are moored here.
- In Blaine, Drayton Harbor includes pleasure craft and a fishing fleet.



- Point Roberts is accessed by water from the Strait of Georgia or by land through Canada.
- Semiahmoo Marina contains approximately 300 slips and is located near the Canadian border.
- Private marinas are located along Bellingham Bay (including Fairhaven), Lummi Island, Gooseberry Point, Sandy Point, Birch Bay, and Eliza Island.

3. Rail

- Bellingham is on Amtrak routes from Seattle and Vancouver, B.C.
- Rail freight corridors along SR 9 and the Puget Sound shoreline (i.e., along Chuckanut Bay to Bellingham) connect freight from the south into Canada, with additional sidings that connect these two routes.
- There is rail along the I-5 corridor to Blaine and northwest to the Cherry Point vicinity.
- Rail from Cherry Point to Custer links with the I-5 rail corridor.

4. Vessel Traffic Lanes

- Deep Draft Commercial Vessels
- Barges
- Tug boats
- Commercial fishing vessels
- Recreation boats
- Federal Vessels
- Vessels accessing shipyards in Fairhaven and Bellingham Bay

5. Ferry Crossings

- The Alaska Marine Highway System Ferry departs from Bellingham to Alaska.
- The Whatcom County Ferry crosses Hales Pass from Gooseberry Point to Lummi Island (an approximately 8-minute transit time).
- Plover Passenger Ferry crosses from Blaine to Semiahmoo Spit; this ferry is open seasonally on the weekends from Memorial Day to Labor Day.
- Commercial sight-seeing ferries to the San Juan Islands and Victoria, Canada,



depart from the Bellingham Ferry Terminal.

- Canadian Ferries cross northwestern Whatcom County waterways: Tsawwassen through Strait of Georgia, to Channel Islands, and to Sidney on Vancouver Island, B.C.

6. Rivers

- The Nooksack River and many tributaries and independent streams are used by canoes, kayaks, small fishing boats, and for rafting float trips.

D. AIR TRANSPORTATION

- Bellingham International Airport: Commercial jets use a 6,700 X 150-foot asphalt runway
- Lynden Municipal Airport: 2425 X 40-foot asphalt runway
- Point Roberts Airport: 2400 X 150 turf runway
- Vancouver International Airport, an "air hub" with worldwide nonstop flights, is 45 miles north in Vancouver B.C.
- Sea-Tac International Airport is 90 miles south in Seattle, Washington

E. LAND TRANSPORTATION

- Whatcom Transportation Authority (WTA)
- Greyhound bus
- Private charters/shuttles
- Taxis
- Car rentals

F. SERVICES

1. Hospital

- Peace Health St. Joseph Medical Center, including its Outpatient Center, is the only hospital in Whatcom County.
- Several health clinics are found in Whatcom County, primarily in Bellingham.



2. Local Media

- Two television stations with out-of-state production: KVOS on Channel 12 is produced in Chicago with its primary market being lower BC and Vancouver Island. KBCB is an Illinois based Christian Television station, running only Christian programming, again mainly focused on lower mainland.
- Several companies provide television cable services
- Telephone companies:
 - Century Link Communications in Bellingham
 - Whidbey Telephone Company in Point Roberts
 - Frontier in the remainder of Whatcom County
 - Comcast (IP Service)
- Ten radio stations: AM/FM
- Emergency Alert System Station: KGMI (790 AM)
- One daily newspaper
- Seven weekly newspapers
- Two monthly publications

3. School Districts: Public Education, Kindergarten through 12th grade

- 35 elementary schools
- 11 middle schools
- Nine high schools
- Numerous private schools

4. Colleges/Universities

- Bellingham Technical College
- Northwest Indian College
- Western Washington University



- Whatcom Community College
- Washington State University Cooperative Extension – Whatcom County

5. Utilities

- Electricity: Puget Sound Energy, Public Utility District (PUD) #1, Blaine PUD, Sumas PUD, and Bonneville Power (to direct-service customers)
- Gas: Cascade Natural Gas supplies gas directly to customers; Williams Natural Gas Pipeline, Arco Natural Gas Pipeline, and Olympic Pipeline supply retailers.
- Water: approximately 350 public water systems in Whatcom County; Bellingham, Lynden, Blaine, Glacier, Nooksack, and Sumas have their own water districts; and some smaller communities rely on private wells and lakes
- Cogeneration plants: three natural gas-fired cogeneration plants are located in Whatcom County: Sumas Cogeneration Company LP in Sumas; - PSE Ferndale Generating Station in Ferndale; and Encogen Cogeneration Plant in Bellingham.

WHATCOM COUNTY PRESIDENTIAL DISASTER DECLARATIONS

When natural hazard event impacts are large, the state may request a Presidential Disaster Declaration. The table below lists the Presidential Disaster Declarations for Whatcom County from 2009 until the publication of this plan update in June 2021. Where available, dollar value represents the estimate Whatcom County public assistance per capita impacts, as established in the Preliminary Damage Assessment (PDA) Report for the event. Complete data is available through <https://www.fema.gov/disasters/disaster-declarations> database.

Year	Level of Community Impact (Estimated)	Date	Disaster Types	Federal Disaster #
2009	Whatcom County included in declaration as an amendment to the original declaration. No per capita impact available for Whatcom County at time of PDA	30-Jan-2009	Severe Winter Storm, Landslides, Mudslides, and Flooding	1817



2008	\$4.12 per capita impact	2- Mar- 2009	December 2008 Severe Winter Storm and Record and Near Record Snow	1825
2010- 2014	No Major Disaster Declarations			
2015	Below \$3.57 per capita threshold	15- Oct- 2015	Severe Windstorm	4242
2015	\$10.50 per capita impact	20- Oct- 2015	Wildfires and Mudslides	4243
2017	\$10.05 per capita impact	21- Apr- 2017	Severe Winter Storms, Flooding, Landslides, and Mudslides	4309
2019	\$25.71 per capita impact		Straight-Line Winds, Flooding, Landslides, and Tornado	4418
2020	\$10.26 per capita impact	23- Apr- 2020	Severe Storms, Flooding, Landslides, and Mudslides	4539
2020	No per capita impact assessed	22- Mar- 2020	Covid-19 Pandemic	4481



WHATCOM COUNTY STATE DECLARATIONS AND OTHER DISASTERS

Not all events that occur reach a Presidential Declaration. Whatcom County experiences many events that do not reach the threshold of even a gubernatorial declaration. This does not mean the events are not impactful or costly. It just means the threshold levels for the State have not been reached (\$780,000 for Whatcom County, \$10,750,000 for the State). In addition, Whatcom County, and Whatcom County response agencies, do not have a standardized cost and impact documentation methodology which makes it difficult to adequately track the full scope of an event. Understanding the actual costs and impacts of all natural hazard events is a goal of Whatcom County in the 2021-2025 timeframe. However, the following list of natural hazard events did occur between 2012 and 2020:

Year	Designation	Title	Estimated COSTS
2016	2016	Winter Storm	\$250,000
2016	3207	Reese Hill Wildfire	\$350,000
2016	3764	Wind and Rain	\$200,000
2017	0971	2500 Rock Slide	\$150,000
2017	1905	June Ferndale Suspicious Oder	\$75,000
2017	4928	December Ice Storm	\$600,000 (includes utility damages)
2017		June Mudslide	\$50,000
2017	0347&0448 / FEMA 4309	Feb 2017 Storms	\$1,500,000
2017	3957	Winter Storms 2016/2017	\$750,000
2018	0439	20 Shetland Court Landslide	\$25,000



2018	4434	Flooding and Windstorm	\$575,000
2018	4615 / FEMA 4418	December Storms	\$4,750,000
2018	05	Fire and Dry Fuel Proclamation	\$25,000
2019	0410	February Severe Storms	\$675,000 (includes utility damages)
2020	0256 / FEMA 4539	Super Bowl Flood	\$3,500,000
2020	0256	January Kind Tide Event	\$150,000
2020	0265	COVID-19	\$50,000,000 (not calculated in total, on-going)
2021	1379	Mt Baker/Kelly Road Wildland Fire	\$25,000
			(Total excluding COVID-19) \$13,650,000 or \$2,730,000 per year



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SECTION 1. PLAN MISSION, GOALS, AND UPDATE PROCESS

PLAN MISSION

The mission of the *Whatcom County Natural Hazards Mitigation Plan* is to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards. This can be achieved by increasing public awareness, documenting resources for risk reduction and loss-prevention, and identifying activities to guide the county towards building a safer, more sustainable/resilient community.

PLAN GOALS

The plan goals describe the overall direction Whatcom County jurisdictions, organizations, and citizens can take to work toward mitigating risk from natural hazards.

The goals represent stepping-stones between the broad direction of the mission statement and the specific recommendations outlined in the action items. Key Contributors reviewed the Plan Goals from the 2011 Whatcom County Natural Hazard Mitigation Plan and determined them to be still valid. In the current plan, however, the plan goals were expanded, providing additional detail to more clearly define and clarify those goals. The Plan goal topics are:

1. Protect Life, Property and Public Welfare.

- a. Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural hazards.
- b. Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards. Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventive measures for existing development in areas vulnerable to natural and technological hazards.

2. Increase Public Awareness.

- a. Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- b. Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.



3. Preserve and Enhance Natural Systems.

- a. Encourage development of acquisition and management strategies to preserve open space.

4. Encourage Partnerships and Implementation.

- a. Strengthen communication and coordinate participation among and within public agencies, citizens.
- b. Engage with non-profit organizations, business, and industry to gain a vested interest in implementation.
- c. Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

5. Ensure Emergency Services.

- a. Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- b. Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- c. Coordinate and integrate natural and technological mitigation activities, where appropriate, with emergency operations plans and procedures.



INTEGRATION OF FEMA GUIDANCE

The mitigation plan belongs to the local community. While FEMA has the authority to approve plans in order for local governments to apply for mitigation project funding, there is no required format for the plan's organization. When developing the mitigation plan, keep the following guiding principles in mind:

- Focus on The Mitigation Strategy. The mitigation strategy is the plan's primary purpose. All other sections contribute to and inform the mitigation strategy and specific hazard mitigation actions.
- Process Is As Important As The Plan Itself. In mitigation planning, as with most other planning efforts, the plan is only as good as the process and people involved in its development. The plan should also serve as the written record, or documentation, of the planning process.
- This Is Your Community's Plan. To have value, the plan must represent the current needs and values of the community and be useful for local officials and stakeholders. Develop the mitigation plan in a way that best serves your community's purpose and people.

The suggested mitigation actions are summarized into four types: (1) Local Planning and Regulations, (2) Structure and Infrastructure Projects, (3) Natural Systems Protection, and (4) Education and Awareness Programs. Examples of activities that can be used to accomplish each mitigation goal are identified, as well as the relevant FEMA publications or resources, if applicable.

FEMA recognizes that local governance structures vary, and that the authority to implement mitigation strategies (e.g., land use planning and zoning, building code enforcement, infrastructure improvements, floodplain management, etc.) may not reside within a single governmental entity. In addition, certain FEMA hazard mitigation assistance programs accept applications from private, nonprofit organizations and other quasi-governmental entities that do not necessarily align with traditional geopolitical boundaries. To ensure these potential sub-applicants to FEMA mitigation assistance programs meet the eligibility requirements for mitigation plans under 44 CFR §201.6, FEMA has identified procedures for several of these entities.

Reference: FEMA's Local Mitigation Planning Handbook, March 2013



Federal Regulations

Federal regulations regarding the planning process and updating of multi-jurisdictional hazard mitigation plans can be found in 44 CFR 201.6. The “Planning Process” subsection (b) of 44 CFR 201.6 requires an open public involvement process to be developed and documented as part of the Plan. According to this section, the public involvement process shall include:

1. An opportunity for the public to comment on the Plan during the drafting stage and prior to Plan approval.
2. An opportunity for neighboring communities; local and regional agencies involved in hazard mitigation activities; agencies that have the authority to regulate development; and businesses, academia, and other private and non-profit interests to be involved in the planning process.
3. Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

FEMA’s Local Mitigation Planning Handbook, March 2013

“A community must review and revise an existing plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities and resubmit for approval within 5 years to continue to be eligible for FEMA mitigation project grant funding.”

REGULATION CHECKLIST Regulation (44 CFR 201.6 Local Mitigation Plans)

A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))

A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(c)(2))

A3. Does the Plan document how the public was involved in the planning process during the drafting stage?
(Requirement §201.6(b)(1))



A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))

A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))

A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4) (i))

B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))

B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(ii))

B3. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))

C1. Does the Plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))



REGULATION CHECKLIST Regulation (44 CFR 201.6 Local Mitigation Plans)
C2. Does the Plan address each jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3))
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3) (i))
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects foreach jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3) (ii))
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (includingcost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3) (iv)); (Requirement §201.6(c)(3) (iii))
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans,when appropriate? (Requirement §201.6(c)(4) (ii))
D1. Was the Plan revised to reflect changes in development? (Requirement §201.6(d)(3))
D2. Was the Plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))
D3. Was the Plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))

The “Plan Content” subsection (c) of 44 CFR 201.6 requires the Plan to include documentation



of the planning process including how it was prepared, who was involved, and how the public was involved. The “Plan Review” subsection (d)(3) of 44 CFR 201.6 states that jurisdictions with adopted plans are required to review, revise if appropriate, and resubmit plans for approval within 5 years to continue to be eligible for Hazard Mitigation Grant Program funding.

PLAN UPDATE PARTICIPANTS

Plan Update Participants

The Plan is intended to be multi-jurisdictional; therefore, all of the jurisdictions included in the 2021 Plan dedicated time and effort to provide jurisdiction-specific information contained throughout the 2021 Plan update.

The following jurisdictions assisted in the development of this Plan Update:

- | | | |
|----------------|-------------------|----------------------|
| • Bellingham | Water & Sewer | • Port of Bellingham |
| • Blaine | District | • Sumas |
| • Everson | • Lynden | • Whatcom County |
| • Ferndale | • Meridian School | • Whatcom County |
| • Lake Whatcom | District | Flood Control Zone |
| | • Nooksack | District |

Key Contributors That Provided Jurisdiction-Specific Information

City of Everson

Rollin Harper (Planning Contractor)

City of Bellingham

Liz Coogan, Emergency Management

Claire Foglesong, Natural Resources Policy Manager

Chris Behee, Sr GIS Analyst-Planning & Community
Development



City of Blaine	Stacie Pratschner, Community Development Director
City of Nooksack	Rollin Harper (Planning Contractor)
City of Ferndale	Jori Burnett, City Administrator
City of Lynden	Mike Martin, City Administrator
City of Sumas	Dan DeBruin, Chief of Police Rollin Harper (Planning Contractor)
Lake Whatcom Water and Sewer District	Justin Clary, General Manager Rich Munson, Safety Officer
Meridian School District	Dr. James Everett, Superintendent
Port of Bellingham	Scott McCreery, Emergency Management/Safety Officer
Whatcom County	John Gargett, Whatcom County Sheriff's Office- Division of Emergency Management, Deputy Director Wally Kost, Sheriff's Office Division of Emergency Management Paula Harris, River and Flood Manager Andy Wiser, Geohazards Specialist, Planning and Development Services Roland Middleton, Special Programs Manager, Public Works
Whatcom County FCZD	Paula Harris, River and Flood Manager

In addition to the participating jurisdictions mentioned above, smaller agencies throughout the County were invited to participate in the development and adoption of the Hazard Mitigation



Plan.

The Whatcom County Information Technology, GIS Group was responsible for locating and collecting all natural hazard-related GIS data updates from local and state sources.

In order to involve the public in the 2021 Plan update, the Whatcom County Sheriff's Office Division of Emergency Management advertised and conducted, three virtual Community disaster preparedness workshops, and maintained a 24/7 online virtual town hall meeting on their website concerning the plan update process -

(<https://www.whatcomcounty.us/3569/2021-Natural-Hazards-Mitigation-Plan>). These meetings provided opportunities for participation in the 2021 Plan update and, just as importantly, provided opportunities to solicit information and comments from the citizens of Whatcom County and to better involve them in the Plan.

In addition to the Whatcom County Sheriff's Officer Division of Emergency Management, Western Washington University's Resiliency Institute was contracted to support the 2021 Plan update.

PLAN UPDATE PROCESS

2021 Plan Update Timeline and Milestones

COVID -19 negatively impacted normal plan update processes. Aside from most emergency services focused on responding to urgent medical requirements; other government agencies were closed and directed to work from home. This in turn hindered group interaction, which is an essential part of updating the Natural Hazard Mitigation Plan. Nevertheless, Whatcom County and participating communities undertook an aggressive planning schedule to update this plan once restrictions began to be relaxed. The following timeline along with associated actions reflect the update process used by Whatcom County and participating communities:

Date	Activity
1/20/2021	Initial communication with participating communities
1/27/2021	Virtual kickoff meeting with NHMP communities
1/29/2021	Created 2021 Natural Hazard Mitigation Plan webpage for public use https://www.whatcomcounty.us/3569/2021-Natural-Hazards-Mitigation-Plan



1/29/2021	Created Natural Hazard Mitigation Plan Group SharePoint site for posting reference and planning materials and planning member interaction
2/09/2021	Conducted second NHMP planning team meeting focused on planning timeline and update responsibilities
2/11/2021	Virtual meeting with Dr. Rebekah Paci-Green from Western Washington University (WWU) Resilience Institute on NHMP criteria, and contract scope-of-work
2/24/2021	Conducted third NHMP planning team meeting; clarified timeline, responsibilities, individual community meeting with WWU contract personnel
3/01/2021	Virtual meeting between Whatcom County Planning and Development Services Geohazard Specialist Andy Wiser and WWU to update responsibilities.
3/02/2021	Virtual meeting between River and Flood Manager Paula Harris and WWU to update responsibilities.
3/4/2021	WWU email communication with Stefan Freelan from Western Washington University discussing asset geospatial analysis process.
3/05/2021	Virtual meeting between WCSO DEM and WWU regarding mapping/GIS updates
3/09/2021	Conducted fourth NHMP planning team meeting; Dr. Paci-Green updated planning team on tables to be introduced
3/09/2021	WCSO DEM and WWU coordinated with Kevin Zerbe (WA State Hazard Mitigation Officer) concerning HHMP tables (quantitative vs qualitative information)
3/15/2021	Lake Whatcom Water and Sewer District met with WWU to discuss updating their sub-section in Section 3.
3/15/2021	WCSO-Public Information Officer began publicizing MNHMP public meeting through traditional and social media sources; local communities dovetailed



	publicity on their community websites
3/17/2021	The City of Bellingham points of contact met with WWU to discuss updating their sub-section in Section 3.
3/19/2021	The City of Ferndale points of contact met with WWU to discuss updating their sub-section in Section 3.
3/22/2021	The Port of Bellingham point of contact met with WWU to discuss updating their sub-section in Section 3.
3/23/2021	Conducted first public County-Wide GoToWebinar concerning Whatcom County's Natural Hazard Mitigation Plan. Addressed all hazards, Community-POCs introduced selves, and answered questions. Meeting time 1830-2000
3/24/2021	Conducted fifth NHMP planning team meeting; Dr. Paci-Green updated planning team on community progress, Jasmine Ro provided update on mapping/GIS products which were loaded into GroupShare site for all planners to review and comment on
3/25/2021	Virtual meeting between Special Programs Manager for Public Works Roland Middleton and WWU to update responsibilities.
3/26/2021	Lynden point of contacts met with WWU to discuss updating their sub-section in Section 3.
4/5/2021	Email communication with Chris Behee discussing natural hazard map comments and updating jurisdiction and urban growth area data.
4/05/2021	WCSO-DEM put out press release concerning NHMP public workshop meeting #2 scheduled for April 13, 2021
4/06/2021	Email communication with Stefan Freelan from Western Washington University reviewing population data.
4/06/2021	Conducted sixth NHMP planning team meeting
4/06/2021	WWU shares critical facilities and wildfire map examples for critique; shares updated annual review and progress table for critique.



4/10/2021	The City of Blaine points of contact met with WWU to discuss updating their sub-section in Section 3.
4/13/2021	Coordinated with WA DNR on status of new wildland fire modeling which is slated to be released in the near future.
4/13/2021	State NFIP Coordinator David Radabaugh meet with WWU to update NFIP figures in Appendix D.
4/13/2021	Conducted second public County-Wide GoToWebinar concerning Whatcom County's Natural Hazard Mitigation Plan. Addressed all hazards, Community-POCs introduced selves, and answered questions. Meeting time 1830-2000
4/15/2021	WCSO-DEM forwarded updated Section 3 to WWU
4/16/2021	WCSO-DEM sent updated Severe Storm Section to WWU
4/16/2021	WCSO DEM sent updated Wildland Fire Section to WWU
4/19/2021	WWU sends Lynden a finalized community profile for review
4/19/2021	Point of contact for Everson, Nooksack and Suman sent updated Section 3 community profiles to WWU
4/19/2021	Email communication with Stefan Freelan from Western Washington University reviewing geospatial analysis tools.
4/20/2021	Paula Harris sends updated flood hazard section and updated NFIP material for Appendix 5 to WWU
4/20/2021	Conducted seventh NHMP planning team meeting; WWU shares updated UGA, community boundary, critical facilities, wildfire, flood, seismic and tsunami map examples for review and critique
4/20/2021	Ferndale sends updated critical facilities list to WWU
4/20/2021	Lake Whatcom Water and Sewer District sends updated Section 3 community profile to WWU



4/20/2021	Port of Bellingham District sends updated Section 3 community profile to WWU
4/21/2021	Meridian School District sends updated Section 3 community profile to WWU
4/22/2021	Andy Wiser sends updated geological hazards section to WWU
4/22/2021	Ferndale sends updated Section 3 community profile to WWU
4/23/2021	Meeting with John Gargett from Whatcom County discussing tsunami hazard data and coastal erosion data.
4/27/2021	City of Bellingham sends updated Section 3 community profile to WWU
4/27/2021	Roland Middleton sends updated Swift Creek Alluvial Fan hazard description to WWU
4/28/2021	WSDOT Avalanche Forecaster Harlan Sheppard met with WWU to update the Avalanche sub-section in Section 2.2.
4/30/2021	Email communication with Stefan Freelan from Western Washington University discussing geospatial analysis steps for percent of population in hazard area calculations.
5/11/2021	Conducted third public County-Wide GoToWebinar concerning Whatcom County's Natural Hazard Mitigation Plan. This workshop focused on aggregate updates and new GIS features to be included in the plan. Meeting time 1830-2000



PUBLIC INVOLVEMENT

Despite the high level of effort required to develop and implement mitigation strategies, it is ultimately up to the people that comprise each community and jurisdiction to determine the success of the Plan in the event of a natural hazard. Therefore, public involvement is essential in each step of the planning process. Whatcom County uses a variety of methods to provide public outreach and involvement during and following Plan development including public meetings and web-based outreach.

Public Meetings

Whatcom County Sheriff's Office Division of Emergency Management used social media, public meeting announcements, website and presentations at association meetings to jurisdictional representatives (i.e., Cities, Fire Districts, and School Districts) to advertise the meetings. The purposes of the meetings were to review the 2016 Plan, advise the public regarding the update process, and receive public feedback. Each representative in attendance was provided a checklist to complete that included specific jurisdictional and natural hazard information to be updated for the 2016 Plan. The same checklists were delivered to representatives not in attendance to ensure that similar updates were completed.

Every October, the DEM hosts an annual flood meeting to bring all of the agencies involved in responding to flood events together to review response procedures. Agencies involved in emergency response include:

- | | |
|---|---|
| • U.S. Army Corps of Engineers (USACE) | impacted by flooding |
| • National Weather Service | • Whatcom County Maintenance and Operations Division |
| • Red Cross | • British Columbia Ministry of Environment |
| • Whatcom County Sheriff's Office | • Washington State Department of Transportation (WSDOT) |
| • Police departments within cities impacted by flooding | • Local media |
| • Fire departments within cities impacted by flooding | • Water Districts |
| • Fire departments within unincorporated Whatcom County | • Tribal Jurisdictions |
| | • Parks Management |



Additional annual meetings facilitated by the DEM include a winter storm meeting, a Local Emergency Planning Committee meeting, and an Emergency Planning Council meeting. The Local Emergency Planning Committee is composed of various representatives from around the County and the annual meeting is open to the public. The Emergency Planning Council is composed of elected officials and holds annual private meetings.

WEB-BASED OUTREACH

The Whatcom County Sheriff's Office Division of Emergency Management utilizes an extensive website that is frequently updated with the most recent hazard preparation materials, hazard updates, and emergency event press releases. Hazard preparation materials published on the website include disaster planning documents, a disaster preparedness handbook,¹ and other hazard-specific information (e.g., earthquakes, fires, floods, and winter storms). Hazard updates on the site include the latest weather and road conditions and emergency road closures and restrictions. Emergency event press releases are also published on the website that follows incidents in progress or weather events of alert level concern. The website also includes links to the Washington State Emergency Management Division (EMD), the City of Bellingham Office of Emergency Management, the American Red Cross Mount Baker Chapter, and the FEMA websites. The site was used capture input on the Natural Hazard Mitigation Plan with a page that was dedicated as a "virtual town hall" on the Mitigation Plan update efforts.

¹ Available on the Whatcom County DEM website at:
http://www.co.whatcom.wa.us/dem/pdf/emergency_resources-guide.pdf



ELEMENTS NEW TO THE 2021 PLAN

Note: This *Table of Changes* documents pertinent changes made from the 2016 Whatcom County Natural Hazards Mitigation Plan (WCNHMP) to the 2021 WCNHMP Plan update.

Plan Section	Changes in the 2021 Whatcom County Natural Hazard Mitigation Plan (WCNHMP) Update
Introduction	<p>The 2021 WCNHMP retains the same integrity in the Introduction, as the 2016 WCNHMP.</p> <p>The list of natural hazard impacts was more fully described. The list of federally declared disasters was updated for 2016-2020 and the county per capita impacts, as given in the Preliminary Damage Assessment Reports, were added for all declarations from 2009 to present. Further, a list of state-level emergency declarations related to natural hazards was also added to more fully encompass natural hazard impacts to the county.</p>
Section 1: Plan Process and Development	<p>The 2021 WCNHMP retains the same integrity in Section 1, as the 2021 WCNHMP.</p> <p>The stakeholders list was updated, as was the description of public outreach and plan preparation. County planning goals for natural hazard mitigation were edited to increase clarity.</p>
Section 2: Hazard Summaries	<p>The 2021 WCNHMP retains the same integrity in Section 2, as the 2016 WCNHMP.</p> <p>Other Hazards of Concern for epidemic/disease, Hazardous Materials Release, Supply Chain Disruption, and Terrorist Attack were removed as these hazards are not classified as natural hazards and the county is not currently submitting an enhanced plan.</p>
Section 3: Community and Special District	<p>The 2021 WCNHMP retains the same integrity in Section 3, as the 2016 WCNHMP, but with improved format and significant additions to content. These changes include:</p> <ul style="list-style-type: none">Consistent maps were created for all communities and special districts, including population density, urban growth area (where



Profiles and Mitigation Strategies	<p>appropriate), critical facilities, and hazard exposure maps for earthquake, tsunami, landslide, lahar, flood, and fire. A list of other planning documents the WCHMP will inform or shape.</p> <ul style="list-style-type: none">• Three former sections -- hazard description, presence of hazards, and the hazard impacts on community – were merged into a single Presence of Hazards and their Impacts section. Furthermore, the severity of each hazard’s impacts was qualitatively assessed and the percentage of area in a community exposed to the hazard was quantitatively assessed and provided to give better context to how the hazard may impact the community or special district.• The Critical Facilities List was updated to include a qualitative assessment of the significance of each facility to community function, using a 3-point scale of moderate, high and very high.• In the 2016 plan, Critical Facilities were ranked qualitatively, based upon practitioner and expert opinion. In the 2021 update, ranking was consistently calculated across all communities and special districts by considering the significance of the facility, its exposure to eight hazards, and a 3-point scale of frequent, rare, and very rare to account for the frequency of each of these hazards.• Based upon the consistent hazard maps created for all communities, geospatial analysis was used to populate a detailed table of area and assets exposed, by hazard.• A new public outreach and education section was added to highlight the important of public awareness in natural hazard mitigation and to spur further outreach and education in the future.• In the 2016 plan, a section on Mitigation Strategies and Projects for the previous planning period (2010-2014) combined ongoing project updates and potential mitigation actions, often without distinguishing between the two. In the 2021 plan, the section has been retitled• Status of Ongoing and 2016-2020 Hazard Mitigation Actions. In
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	<p>this section ongoing, completed, and discontinued actions are listed. To increase transparency, each action includes a short description of activities during the 2016-2020 planning period, even if the action will continue as an ongoing action into the future.</p> <ul style="list-style-type: none">• In the Hazard Mitigation Strategy 2021-2025 section, the country-wide hazard mitigation goals are reiterated to orient the reader to the focus and goals of the strategy. Readers are directed to Appendix E to see a list of potential mitigation actions options.• The Mitigation Action Prioritization section better clarifies that actions are being prioritized based upon overall feasibility and criticality of action. The county plans to move towards a more systematic identification of evaluation criteria in the next plan update.• The table of mitigation actions for 2021-2025 now includes a column for identifying which planning goal(s) each action addresses. The table also now distinguishes between ongoing actions that are continuing from the 2016-2020 planning period (italic, alpha-numeric label, and ongoing in title) and those that are new actions for 2021-2025 (numeric label).• Communities were further encouraged to provide a more detailed description of the action as it pertains to their community or special district in this 2021-2025 mitigation actions table.• The Annual Review and Progress table to be used each year has also been updated. A column for each year was added so that readers can better see how actions progress over 2021-2025. A notes column was also added to provide the updater a place to explain progress. Both ongoing and new actions are included in the table.
Section 4: Plan Maintenance	The 2021 WCNHMP retains the same integrity in Section 4, as the 2016 WCNHMP.



Appendices	<p>The 2021 WCNHMP retains the same integrity in Appendices, as the 2016 WCNHMP.</p> <p>In Appendix D: NFIP Participation, claims, policies, and repetitive loss structure numbers were updated for every community. The Progress Report Form (Appendix F) Contact List (Appendix G) were also updated.</p>
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PLAN ORGANIZATION

This Plan Is Organized into Four Sections and Multiple Appendices.

Section 1: Plan Process and Development

The first section contains information pertaining to the Plan development process, including:

1. Natural Hazards Mitigation Planning
 - a. Federal Regulations
 - b. Plan Update Participants
 - c. Public Involvement
2. Plan Revisions

Section 2: Hazard-Summaries

The second section contains information specific to the natural hazards present in Whatcom County. This section is broken down into:

1. Hazard-Related Definitions
2. Background Information
3. History
4. Vulnerability Assessment
5. Mitigation Strategies

Section 3: Community and Special District Profiles and Mitigation Action Plans

The third section contains jurisdiction-specific chapters, with the following information for each:

1. Contact Information
2. Approving Authority
3. Planning Process
 - a. Key Contributor List
 - b. Plan Maintenance
 - c. Public Outreach and Education
4. Overview of Hazards and Assets



- a. Geography
 - b. Growth Trends
 - c. Presence of Hazards and their Impacts
 - d. Natural Hazards Maps
 - e. Critical Facilities List and Assessment Ranking
5. Areas and Assets Exposed, Per Hazard
6. Status of 2015-2021 and Ongoing Hazard Mitigation Actions
7. Hazard Mitigation Strategy for 2021-2025
 - a. Whatcom County Hazard Mitigation Goals
 - b. Jurisdiction-Specific Mitigation Goals (Optional)
 - c. Mitigation Action Options
 - d. Mitigation Action Prioritization
 - e. Identified Mitigation Actions 2021-2025
 - f. Annual Review Process

Section 4: Plan Maintenance

This section ends with a description of how the Plan will be maintained in the future.

Appendices

- A. Capabilities Listing (documents, processes, and resources reviewed and added by the team)
- B. List of Acronyms and Abbreviations
- C. Whatcom County Risk Assessment and Mitigation Strategies (RAMS) Assessment (wildland-fire related)
- D. 2015 Plan Development Process
- E. National Flood Insurance Program (NFIP) Status
- F. Whatcom County Mitigation Ideas
- G. Whatcom County 2021 Contact List

This Plan is an evolving document that will eventually include additional information and discussions of additional natural hazard studies, man-made hazards such as terrorism, and



general updates as they become available.

STATE AND FEMA PLAN REVIEW PROCESS

1. Submitting the Plan.

- a. Once the planning team is confident the plan meets the required elements and includes all supporting documentation, forward the plan to your State Hazard Mitigation Officer (SHMO) or State Mitigation Planner. It is critical that all supporting documentation related to the planning process and other components of the plan are included in the initial submittal. Incomplete plan submittals can delay plan approval. The State will review the plan and work with you on any required revisions for approval.
- b. Once the State is satisfied that the plan meets the requirements, the SHMO will forward the plan to the FEMA Regional Office for review and approval. FEMA will conduct its review within 45 days, if possible, and provide a completed Local Mitigation Plan Review Tool to the State. The FEMA Regional Office and the State may contact you to discuss additional revisions to the plan to ensure that it meets the Federal regulation. Once FEMA determines the plan meets the regulation, FEMA will notify the SHMO that the plan is approvable pending adoption (APA), or approved if the community has already adopted the mitigation plan.

2. Approval Pending Adoption.

- To avoid repeated attempts to adopt the plan prior to FEMA approval, many communities obtain a notice from FEMA that the plan is APA before adopting the plan. As a time-saving measure, communities are encouraged to submit the final draft of the mitigation plan to the State and FEMA for review prior to formal adoption by the elected officials or other authorized governing body. If FEMA determines the plan is not approvable and requires revisions, the community will be able to make revisions before initiating the plan adoption process, therefore avoiding unnecessary delays in plan approval.

3. Plan Approval.

- Upon receiving the record of adoption from the State, FEMA will issue an official approval letter stating which jurisdictions have adopted and are approved and eligible for FEMA Hazard Mitigation Assistance programs. The approval letter will include the expiration date 5 years from the date of the letter. Attached to the



approval letter will be a final Local Mitigation Plan Review Tool that provides feedback on the strengths of the plan, recommendations for plan improvements during future plan updates, and suggestions for implementing the mitigation strategy.

4. Local Adoption of the Plan.

- Adoption by the local governing body demonstrates the community's commitment to implementing the mitigation strategy and authorizes responsible agencies to execute their actions. The final plan is not approved until the community adopts the plan and FEMA receives documentation of formal adoption by the governing body of the jurisdiction(s) requesting approval. The governing bodies are typically the Town Board, City Council, County Commissioners, and/ or Board of Selectmen. While plan adoption usually occurs through a formal resolution, council minutes, consent agendas, or other forms of adoption are acceptable if allowed by local law.

5. Multi-Jurisdictional Adoption.

- Each jurisdiction seeking plan approval must adopt the plan. If you choose to use the APA process, it is important to coordinate the adoptions of all the jurisdictions as soon as the plan receives APA status. The governing bodies may have different meeting schedules, which prevent all the jurisdictions from adopting at the same time. If possible, coordinate the adoptions and submit documentation to the State at the same time.
- At least one of the participating jurisdictions must adopt the plan within 1 year of FEMA's APA notice. FEMA will issue an official approval letter stating which jurisdictions have adopted the plan and are eligible for FEMA hazard mitigation assistance programs. The plan will expire 5 years from the date of FEMA's approval letter for the mitigation plan. The approval letter and date are generated with the first jurisdiction adopting the plan. The plan approval date remains the same regardless of when other participating jurisdictions adopt the plan. It is important to coordinate the adoption process to ensure that all participants are covered by the plan for the full 5 years. Plan updates follow the same adoption process.

6. Procedures for Adding Additional Jurisdictions to the HMP.

This procedure was developed by the Whatcom County Sheriff's Office Division of Emergency Management in cooperation with the Washington State Emergency



Management Division. This procedure has been incorporated into the plan as part of the 2021 plan update.

- a. A jurisdiction not included in this update and wishing to join the plan contacts the Whatcom County Sheriff's Office Division of Emergency Management with the request to become a participant of the plan.
- b. The Whatcom County Sheriff's Office Division of Emergency Management provides the jurisdiction with a copy of the planning requirements and any other pertinent data.
- c. The jurisdiction reviews the plan and develops the portions of the plan that are specific to the jurisdiction as directed by the Whatcom County Sheriff's Office Division of Emergency Management staff. The portion of the plan must meet the requirements of the current FEMA's Local Mitigation Planning Handbook, March 2013.
- d. The new jurisdiction submits its portions of the plan to the Whatcom County Sheriff's Office Division of Emergency Management and the new jurisdiction plan is forwarded to the State Hazard Mitigation Program Manager for review and compliance with current Local Multi-Hazard Mitigation Planning Guidance.
- e. The State Hazard Mitigation Program Manager reviews the new jurisdiction plan for compliance with current Local Multi-Hazard Mitigation Planning Guidance in conjunction with the Whatcom County Multi-Jurisdictional Hazard Mitigation Plan. If the new jurisdiction does not meet the required standard, the State Hazard Mitigation Program Manager will work with the jurisdiction to resolve issues until it does.
- f. The State Hazard Mitigation Program Manager forwards the new jurisdiction plan to FEMA Region X for review and comment.
- g. Upon approval from FEMA Region X, the new jurisdiction is considered part of the Whatcom County Multi-Jurisdictional Hazard Mitigation Plan and will comply with the update schedule of the plan.



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SECTION 2.1. HAZARD SUMMARIES

The following eight natural hazards were identified to be significant risks to the county, and specifically hazardous to the populated western areas of Whatcom County:

1. Earthquakes
2. Flooding
3. Coastal Flooding
4. Geologic Hazards
5. Severe Storms
6. Tsunamis
7. Volcanoes
8. Wildland Fires

The updated Hazard Identification and Vulnerability Analysis (HIVA) was received late in the plan update process and will be the basis for the next version of the all-hazards plan.

The following sections describe the seven significant natural hazards and their potential threats to Whatcom County. Much of the information collected in these hazard summaries came from local experts working in hazard assessment or hazard mitigation for a specific hazard. The summaries describe the hazards, convey the areas at potential risk from each hazard, and describe mitigation measures as implemented in the past or to be implemented in the future to manage the effects of natural disasters in Whatcom County.

Each hazard description is organized into the following parts:

Hazard	Related Definitions
Background Information	General description of the hazard relevant to Whatcom County and Washington State
Background Information	General description of the hazard relevant to Whatcom County and Washington State
History	Historical background on the presence of the hazard in Whatcom County; much of this information was obtained from agencies such as FEMA, the Washington Department of Natural Resources (WDNR), and the U.S. Geological Society (USGS)



Vulnerability Assessment	Descriptions of specific areas within the county at risk for each hazard, when this information was available
Mitigation Strategies	Recommended mitigation strategies to lessen the dangers posed by each hazard

Whatcom County's Planning and Development Services provided the hazard GIS datasets, except for the Wildland Fire data, which came from WDNR's North Region. For the current update, new hazard maps were produced by the Western Washington University GIS Department depicting specific hazards posed to municipalities throughout Whatcom County.

See sub section 2.2 for the list of Other Hazards of Concern, including:

1. Avalanches
2. Coastal Flooding/Tidal Overflow
3. Dam Failure
4. Drought



EARTHQUAKES

A. DEFINITIONS

- Earthquake** Sudden motion or trembling in the earth. This can be caused by the abrupt release of accumulated energy on a fault or by volcanic or magmatic activity.
- Crust** Outermost major layer of the Earth, ranging from about 10 to 65 km in thickness worldwide. The uppermost 15 to 35 km of crust is brittle enough to produce earthquakes.
- Fault** Fracture along which the blocks of crust on either side have moved relative to one another, parallel to the fracture.
- Liquefaction** Phenomenon in which loosely packed, saturated sediments lose intergranular strength in response to strong seismic shaking, causing major damage due to excessive ground settlement.
- Lithosphere** The outer solid part of the earth, including the crust and uppermost mantle. The lithosphere is about 100 km thick, although its thickness is dependent on age. The lithosphere below the crust is brittle enough at some locations to produce earthquakes by faulting, such as within a subducted oceanic plate.
- Subduction zone** A place where two lithospheric plates come together, one riding over the other. The process of subduction is where the oceanic lithosphere collides with and descends beneath the continental lithosphere.

B. BACKGROUND INFORMATION

For hundreds of millions of years, the forces of plate tectonics have shaped the Earth as the plates that form the Earth's surface slowly move over, under, and past one another. The speed of these plates is variable: sometimes they move gradually and at other times the plates are locked together, unable to release the accumulating energy. This energy can also be generated by a sudden dislocation of segments of the Earth's crust, by a volcanic eruption, or even by anthropogenic-caused explosions. When the accumulated energy grows strong enough, the plates break free, resulting in an earthquake. If the earthquake occurs in a populated area, it may result in injury or death, and extensive property damage. The most destructive earthquakes are caused by natural dislocations of the crust. The crust first bends, and when the



stress exceeds the strength of the rocks, breaks and "snaps" into a new position.

Geologists have discovered that earthquakes tend to occur along faults, which reflect zones of weakness in the Earth's crust. Even if a fault zone has recently experienced an earthquake, however, there is no guarantee all stress has been relieved, and another earthquake could still occur. Relieving stress along one part of a fault may also increase stress in another part, increasing the probability that an earthquake could occur nearby.

The Juan de Fuca Plate is an ocean tectonic plate that is colliding with the North American Continental Plate near the western coast of Washington State in a subduction zone called the Cascadia Subduction Zone (CSZ). The CSZ is shown in Figure 1. The CSZ extends from southern B.C. to northern California. One of the results of the colliding forces at the CSZ is the uplift that is occurring and is forming the Olympic and Cascade Mountain Range. The convergence of these two plates also creates a more immediate concern: earthquakes. Subduction zone earthquakes can be powerful and sustained for greater lengths of time than other types of earthquakes.

Geologic work along the Oregon and Washington coasts, and Puget Sound and tsunami (commonly called a tidal wave) data from Japan, indicate very large magnitude quakes occur, on average, every 550 years along the CSZ. The last major subduction quake to occur along the Washington Coast occurred in 1700 (Atwater, et al., 2015).

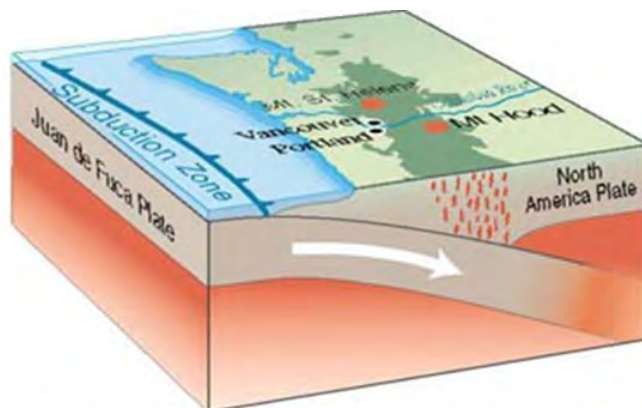
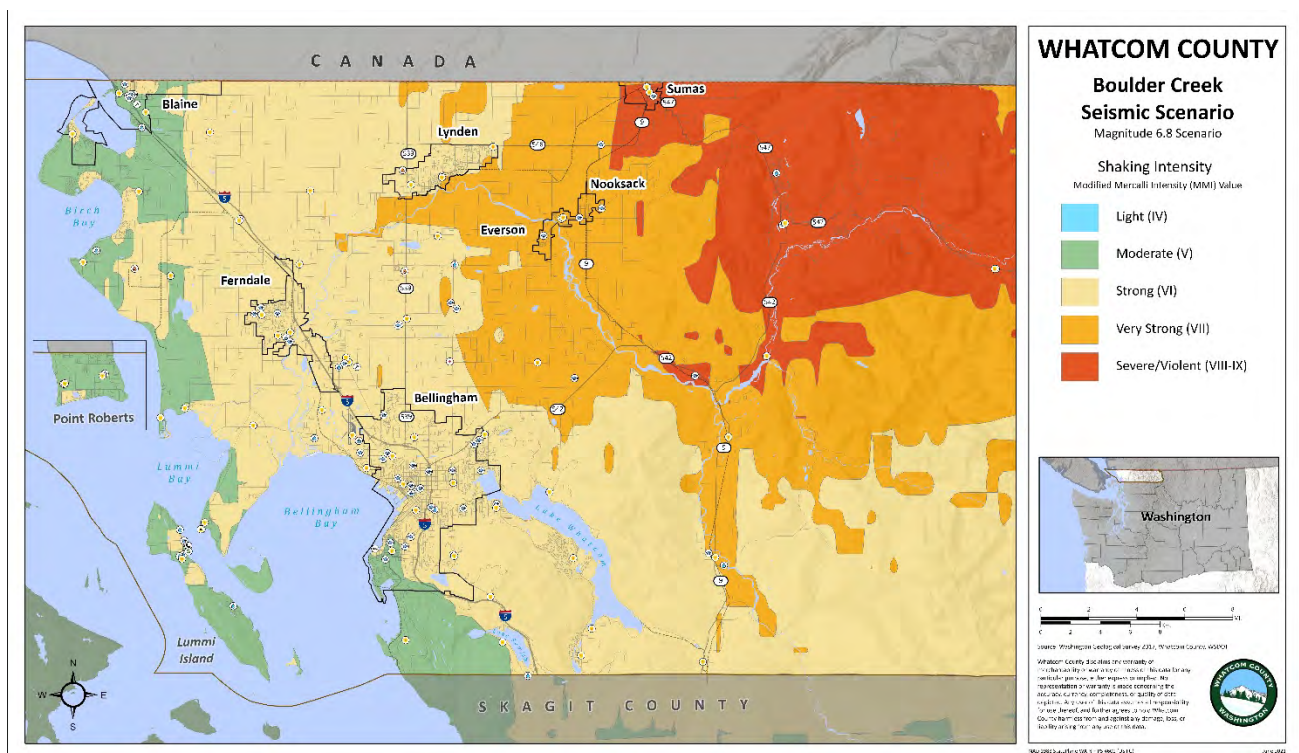


Figure 1 Courtesy of USGS Earthquake Hazards Program.

Earthquakes can also be produced by movement along faults within the North American plate (known as "intraslab" earthquakes). Recent geologic investigations have revealed a number of fault zones in the Puget Sound region of Western Washington, including several recently active faults in Whatcom County. These faults record a number of Holocene (a geologic epoch beginning 10,000 years ago) earthquakes that not only produced substantial ground movement, but also resulted in the rupturing of ground surface. The close proximity of population centers to these fault zones and the potential



for surface rupture should be considered when seismic hazard assessments and engineering designs are prepared. Local faults that have been mapped include the McCauley Creek Thrust Fault near Deming and the Boulder Creek Fault and associated Kendall Fault Scarp in the North Fork Nooksack River Valley. The Kendall Fault moved as recently as 900 years ago with an earthquake magnitude potentially larger than the magnitude 6.8 Nisqually earthquake of 2001 (Sherrod, et al, 2013). The Nisqually earthquake, an intraslab earthquake that occurred under Anderson Island, 11 miles northeast of Olympia, was felt in Bellingham, which lies 120 miles to the north. Recent published research identifies a set of northwest-trending Holocene faults capable of producing 6.0-6.5 Magnitude earthquakes beneath the communities of Sandy Point, Birch Bay and (Kelsey, et al., 2012). A Boulder Creek Fault earthquake would be extremely damaging to Whatcom County, as shown in the map below, because it is within County borders.





doors are disturbed; walls make cracking sounds. Sensations are like a heavy truck striking a building. Standing motor cars are rocked noticeably.

- *Moderate Shaking (V) Felt by nearly everyone; many awakened: Some dishes and windows are broken. Unstable objects are overturned.*
- *Strong Shaking (VI) Felt by all, and many are frightened. Some heavy furniture is moved; a few instances of fallen plaster occur. Damage is slight.*
- *Very Strong (VII) Damage is negligible in buildings of good design and construction; but slight to moderate in well-built ordinary structures; damage is considerable in poorly built or badly designed structures; some chimneys are broken.*
- *Severe-Violent (VIII-IX) From considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. In some places, damage is considerable in specially designed structures; well-designed frame structures are thrown out of plumb. Damage is great in substantial buildings, with partial collapse. Buildings are shifted off foundations. Liquefaction occurs.*

According to the USGS, Washington ranks fifth in the United States of those states at risk of earthquakes with a magnitude 3.5 or greater. As of 2016, 424 earthquakes occurring in Washington since 1974 accounted for 2.0% of all earthquakes in the United States. Additionally, according to a FEMA study, Washington ranks second in the nation (after California) of states that are susceptible to earthquake losses.

C. RECENT HISTORY IN WHATCOM COUNTY

Each year, more than 1,000 earthquakes are recorded in Washington. Of these, 15 to 20 cause ground movements strong enough to be felt. According to the USGS, recent geologic findings indicate that earthquakes generated within the CSZ pose a significant hazard to urban areas of the Pacific Northwest. Evidence gleaned from syntheses of global subduction zone attributes, as well as from local tsunami deposits, suggests that major earthquakes occurred in the Pacific Northwest perhaps as recently as 300 years ago (Atwater, et al., 2015).

The most recent earthquake to cause widespread damage in Washington occurred in 1965. Since that time, the state's population has more than doubled from roughly 3 million in 1965 to 7.7 million in 2020. Washington residents have largely forgotten the 1965 earthquake, and this has contributed to a general lack of public awareness of the state's earthquake hazards. Some scientists suggest that even larger earthquakes have occurred every several hundred or



thousand years in the Pacific Northwest. The Nisqually earthquake, although less severe than the one in 1965, occurred in 2001. This quake was centered 120 miles to the south of Whatcom County, yet was still felt in and caused damage in the area. The April 1990 Deming earthquake swarm included a magnitude 5.0 event that is one of the largest earthquakes recorded in northern Puget Sound between 1920 and 1990 (Amadi, 1992). Table 1 lists the Pacific Northwest's largest earthquakes over the last 150 years.

Table 1. Recent Pacific Northwest Earthquakes 4.5 Magnitude or Greater

Date	Depth	Magnitude	Approximate Location
December 1872	Shallow	7.3	North Cascades
October 1877	Shallow	5.3	Portland, Oregon
December 1880		?	Puget Sound
November 1891		?	Puget Sound
March 1893	Shallow	4.7	SE Washington
January 1896		5.7	Puget Sound
March 1904		5.3	Olympic Peninsula, Eastside
January 1909	Deep	6.0	Puget Sound
August 1915		5.6	North Cascades
December 1918		7.0	Vancouver Island
January 1920		5.5	Puget Sound
July 1932	Shallow	5.2	Central Cascades
July 1936	Shallow	6.4	SE Washington
November 1939	Deep	6.2	Puget Sound
April 1945		5.9	Central Cascades
February 1946		6.4	Puget Sound
June 1946	Deep	7.4	Vancouver Island
April 1949	54 km	7.1	Puget Sound
August 1949		8.1	Queen Charlotte, B.C.
August 1959	35 km	5.5	North Cascades, Eastside
November 1962	18 km	5.3	Portland, Oregon
April 1965	63 km	6.5	Puget Sound
February 1981	7 km	5.8	South Cascades
April 1990	12.6 km	5.0	Deming
March 1993		5.6	Scotts Mills, Oregon
September 1993	Varies	6.0	Klamath Falls, Oregon
January 1995	16 km	5.0	Robinson Point
May 1996	7 km	5.3	Duvall
February 2001	52 km	6.8	Nisqually – Anderson Island
June 2001	40.7 km	5.0	Satsop
April 2003	50 km	4.8	Olympic Peninsula, Eastside
July 2004	29 km	4.9	Newport, Oregon
August 18, 2004	28 km	4.7	Newport, Oregon



Date	Depth	Magnitude	Approximate Location
January 2009	58 km	4.5	Poulsbo

Note: Information obtained from the Pacific Northwest Seismograph Network (<http://www.pnsn.org>)

Most of Washington’s earthquakes occur within the Puget Sound region, between Olympia and the Canadian border, along the western side of the Cascade Mountains, and along the Washington-Oregon border. Distant earthquakes also affect Washington, such as the two Vancouver Island, B.C., quakes listed in Table 1 that were felt in Washington.

Damage caused by earthquakes is not limited to the obvious, such as architectural failure in buildings due to the heavy swaying created from an earthquake. Many deaths worldwide are the result of materials falling from buildings to sidewalks and streets below. Ground rupture along an active fault can also cause serious structural damage and disrupt transportation routes. Landslides can also be triggered by earthquakes, as can lateral spreading, which is similar to a landslide but occurs on relatively flat ground adjacent to a slope or waterbody resulting from the loss of lateral support due to seismic shaking. A potential hazard that is unique to Bellingham Bay is the potential for an earthquake-induced landslide on the face of the Nooksack River Delta. Such a landslide could generate a tsunami in Bellingham Bay and impact the Lummi Peninsula and Bellingham.

Liquefaction is another significant hazard that sometimes results from an earthquake, resulting in ground failure due to the loss of intergranular strength (bearing capacity) or liquefaction-induced settlement. Liquefaction and related phenomena have been responsible for tremendous amounts of damage in earthquakes around the world. Liquefaction occurs in saturated soils, when the pore spaces between individual soil particles are sufficiently filled with water. The shaking from an earthquake causes the pore water pressure within the soil to increase to the point where the soil particles readily move with respect to each other and the soil loses its ability to support structures. Once liquefaction has begun in an area, such as under a building, structural support to the foundation would be lost and the building would likely fail. Liquefaction is described in more detail in the “Geologic Hazards” section of this Plan.

Population-dense areas in Whatcom County could be significantly impacted by future earthquakes and their related hazards. The nature and extent of earthquake risk in Washington is determined by a variety of factors, such as estimating the level of predicted ground movement and identifying sites susceptible to ground rupture, enhanced seismic shaking, differential ground settlement from liquefaction, and tsunamis. Combining such hazard information with information concerning the distribution of population, types of building construction, and technological hazards in the County allows for assessing earthquake damage.



For this Plan, all the identified critical facilities are classified as affected by earthquakes since all of Whatcom County is at risk. Future revisions to the Plan will include each critical facility's building structure and more accurate assessments of vulnerability to earthquake danger. Seismic acceleration and response maps are periodically updated by the USGS as new research is published better defining local and regional seismic hazards, and is adopted by local building codes and incorporated in building design by structural engineers.

D. VULNERABILITY ASSESSMENT

The entire population of Whatcom County is vulnerable to the effects and impacts of an earthquake. An earthquake event in urban areas would involve especially elevated risk levels. Tall structures built on seismically-sensitive soils and fill are particularly at risk, due to the potential for liquefaction and lateral spreading. The earthquake risk in Bellingham and other coastal communities in Whatcom County is enhanced where saturated artificial fill was placed along the shoreline during the early to mid-1900's, or -where municipal garbage or wood waste was used as fill over tide flats.

Possible types of damage from an earthquake may include, but will likely not be limited to:

- a. Cracking and/or structural failure of foundations, chimneys, decorative cornices, parapet walls, and cantilevered porches or roofs
- b. Wall failure in older buildings of non-reinforced masonry construction
- c. Damage to waterfront buildings and piers built on piles and artificial fill
- d. Structural damage or failure of bridges
- e. Damage to streets and roads
- f. Damage to railways and airport facilities
- g. Broken water lines and natural gas lines
- h. Power and communication failures due to damage of electrical and telephone distribution systems
- i. Failure of 'dry-stacked' retaining walls on steep slopes in areas of residential development

Examples of potential earthquake impacts to Whatcom County are provided in the five sections below.



1. Landslide Impacts

Landslides can be triggered by earthquakes or by a combination of geologic and climatic factors. The latter are discussed in more detail under Geologic Hazards. Landslides can directly damage a structure built on the landslide or in an area where landslide debris runs out and is deposited (including the base of a hill or an alluvial fan).

Earthquake-induced landslides could impact various locations throughout the County. A lahar (a mud flow originating from a volcano) from Mount Baker could also be triggered during an earthquake. Depending on the specific area of initial failure, the lahar could flow into Baker Lake and cause damage in the Skagit River system or could flow down either the North or Middle Forks of the Nooksack River reaching as far as Sumas and Bellingham Bay. For details regarding lahars, see the “Volcanic Hazards” section of this Plan.

Examples of other locations that may experience earthquake-related landslide include: the Chuckanut Mountains and Chuckanut Drive residential areas built on steep slopes in Bellingham and Sudden Valley; development and roads on or below steep slopes, or within the run-out zone (including alluvial fans) for landslides (such as Nelson Road on the west side of the Van Zandt Dike and Slide Mountain near Kendall); the Mount Baker Highway east of Deming; State Route 9 south of Acme; unstable coastal bluffs on Lummi Island, the Lummi Peninsula, Point Roberts, Cherry Point, Point Whitehorn, Semiahmoo, and Drayton Harbor; Sehome Hill and the Western Washington University campus; and Sumas Mountain. Landslides could also occur on the steep face of the Nooksack River delta in Bellingham Bay, displacing water and sending waves across the bay. This list is intended to illustrate the range of locations where landslides could happen and is not an inclusive list of all possible locations.

The recently published *Landslide Inventory of Western Whatcom County*, produced by the Washington State Department of Natural Resource Geology and Earth Resources, provides a highly improved methodology for the identification of deep-seated landslides discernable by LIDAR image analysis. The inventory identifies both active and dormant (or relict) landslides, and enhanced shaking associated with a large magnitude seismic event has the potential to reactivate dormant deep-seated landslides as well as accelerate or further destabilize currently active deep-seated landslides. Not included in the inventory is the likely location of shallow translational landslides (generally defined as not deeper than the vegetation rooting zone). This type of slope failure does not typically produce geomorphic features discernible in LIDAR and is commonly identified through GIS-based slope stability modeling that determines slope conditions susceptible to shallow failure, and subsequent modeling to determine run-out potential. Neither products are currently available in Whatcom County. The inventory does, however, delineate the location of alluvial fans, which can serve as a proxy for the likely run-out



potential for shallow translational landslides, and these areas should be considered susceptible to earthquake-induced landslides, especially if seismic activity coincides with an extended period of wet weather resulting in saturated soil conditions. Additional information on hazards common to alluvial fans is included under 'Landslides' in the section on Geological Hazards, below.

2. Transportation Impacts

Bridges are the most vulnerable component of highway systems, such as the I-5 overpasses. Bridge foundations in liquefiable soils can move, allowing the spans they support to fail. Areas at significant risk are Roeder Avenue bridges near Georgia Pacific and over Whatcom Creek Waterway; I-5 over Whatcom Creek; the Mount Baker Highway at Cedarville and Everson; Highway 9; and Guide Meridian and Hannegan Road bridges over the Nooksack River. An additional impact is that supporting columns can buckle.

1. Railways. Railway bridges have performed well in earthquakes, but may be subject to liquefaction, such as those along the Bellingham waterfront. Additionally, landslides may cover the tracks.
2. Airports. The Bellingham Airport runway is at low to moderate susceptibility to liquefaction.
3. Pipelines: Water, Wastewater, Liquid Fuel, Natural Gas. Water pipelines commonly fail in earthquakes, quickly draining the water system, making water unavailable for fire suppression, drinking, toilet flushing, etc. Sewer pipelines are often gravity systems and a change in grade can impact system operation. The sewer lines relying on pumps will not work if there is no electric power. These sewer pipelines are vulnerable to flotation if the ground around them liquefies. Liquid fuel and natural gas pipelines that are constructed of steel with welded joints have performed well in earthquakes, except in extreme conditions. The high-pressure lines are made of welded steel or polyurethane plastic, which are flexible. Pipelines constructed of brittle materials are the most vulnerable. Water and older gas distribution systems contain brittle materials, such as cast iron and asbestos cement. Additionally, pipelines buried in liquefiable soils or landslide areas may fail. For example, landslide movement was a likely factor in the rupture, explosion, and fire in 1997 of a natural gas pipeline on Sumas Mountain.

E. MITIGATION STRATEGIES

Earthquakes have long been feared as one of nature's most damaging hazards. Earthquakes



occur without warning and, after only a few seconds, leave casualties and damage. Therefore, it is important that each person and community take appropriate actions to protect lives and property.

Although earthquakes cannot be prevented, current science and engineering provide tools that can be used to mitigate the damage. Scientists can now identify, with considerable accuracy, where earthquakes are likely to occur and what forces they might generate. Modern engineering has resulted in design and construction techniques that allow buildings and other structures to survive the tremendous forces of earthquakes.

In May 2021 ShakeAlert will be deployed in Washington State by the United States Geological Survey. The system allows the identification of hazardous seismic events and automatically triggers warning systems and alerts registered mobile phones. In the event of a Cascadia Subduction Zone Earthquake, centered 200+ miles west of Whatcom County, many tens of seconds warning time can be provided, allowing for individuals to evacuate or shelter in place prior to arrival of initial seismic wave. Additional mitigation can be achieved through the cessation of construction activities, transportation, industrial processes and other critical activities such as medical procedures. It is important to note that earthquakes generated on local crustal faults may produce lesser magnitude seismic events, but may be associated with more intense, although often shorter duration, ground shaking. Furthermore, early detection systems would only be capable of providing a few seconds of early warning for near-source earthquakes, which is commonly considered ineffective to deploy seismic hazard mitigation measures.

FEMA's National Earthquake Hazards Reduction Program (NEHRP) has four basic strategies related to the mitigation of hazards caused by earthquakes:

1. Promote understanding of earthquakes and their effects
2. Work to better identify earthquake risk
3. Improve earthquake-resistant design and construction techniques
4. Encourage the use of earthquake-safe policies and planning practices

Further study of earthquake behavior and better delineation of shallow crustal fault location, extent, potential earthquakes magnitude and recurrency interval will lead to improved preparation and response to earthquakes.

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FLOODING

A. DEFINITIONS

Avulsion The rapid abandonment and of a river channel and formation of a new channel.

Flood An inundation of dry land with water caused by weather phenomena and events that deliver more precipitation to a drainage basin than can be readily absorbed or stored within the basin. The NFIP defines a flood as a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties.

Floodplain The land area of a river valley that becomes inundated with water during a flood.

National Flood Insurance Program A federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. The NFIP is designed to provide insurance as an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their content caused by floods. When a community chooses to participate in the NFIP, they agree to adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas. In exchange, the federal government agrees to make flood insurance available within the community as a financial protection against flood losses.

B. BACKGROUND INFORMATION

The natural hazard of most concern to Whatcom County, primarily due to its frequency, is flooding. Several types of flood hazards affect Whatcom County including:

- a. Overbank flooding and erosion on the Lower Nooksack River downstream of Deming
- b. Overbank flooding and erosion on the three main forks of the Nooksack River upstream of Deming (North, Middle, and South Forks)
- c. Debris flows and debris floods on alluvial fans throughout the County (see the “Geologic Hazards” section for more information)
- d. Coastal flooding (see the “Coastal Flooding” section for more information)



- e. Tsunamis or tidal flooding associated with earthquakes (see the “Tsunamis” section for more information)

The communities located within Whatcom County that are currently participating in the NFIP include:

- a. City of Bellingham (#530199)
- b. City of Blaine (#530273)
- c. City of Everson (#530200)
- d. City of Ferndale (#530201)
- e. City of Lynden (#530202)
- f. City of Nooksack (#530203)
- g. City of Sumas (#530204)
- h. Lummi Indian Reservation (#530331)

Whatcom County (#530198) Whatcom County contains 63.6 square miles of floodplain area, which equals 3 percent of the entire land area. Whatcom County currently holds 994 flood insurance policies and has filed 307 claims through January 31, 2020. Due to privacy concerns, annual information regarding this number is no longer provided by FEMA. FEMA maintains information on repetitive flood loss properties (RFLs) within each community participating in the NFIP. RFLs are properties for which two or more NFIP losses of at least \$1,000 each have been paid within any 10-year period since 1978. As of 2020, there were 17 RLP properties within Whatcom County and seven RPL properties that have been mitigated.

Whatcom County also participates in the NFIP Community Rating System (CRS), implemented in 1990 as a voluntary program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP standards. The CRS entry date for Whatcom County was October 1, 1996; since that time, Whatcom County has received enough points to be qualified as a credit class 6 (out of 10), meaning property owners in the floodplain receive a 20 percent discount on flood insurance premiums. Flood hazard areas in Whatcom County can be seen in the map below.



upper watershed, contribute to the conditions that allow floodwater to quickly reach the flat lower river reaches. The devastating and frequent flooding in 1989 and 1990 prompted Whatcom County residents and government to find solutions to perennial flood problems. Because of severe damages occurring along the Lower Nooksack River floodplain, this area was the focus of initial planning efforts and development of the CFHMP.

The Lower Nooksack River is divided by river reach in the CFHMP as described and as shown in Table 2. The five reaches begin with Reach 1 at the mouth of the Nooksack and move upstream to Reach 5.

Table 2
River Reach Descriptions

	River Mile	River Channel		100-Year Floodplain	
		Length (miles)	Gradient (ft/mile)	Area (mi2)	Width (avg. miles)
Reach 1	0 to 6.0	6.0	1.8	13.8	2.8
Reach 2	6.0 to 15.3	9.3	2.3	8.3	1.1
Reach 3	15.3 to 23.6	8.3	4.9	12.0	1.9
Reach 4	23.6 to 26.6	13.0	21.3	7.5	1.3
Reach 5	---	13.2	4.5	21.5*	22.5**

*Notes: * Drainage Area ** Average Creek Width*

Reach 1 includes the area from the mouth of the Nooksack River to Ferndale west to Haxton Way, including a portion of the Lummi Indian Reservation. Reach 1 is physiographically diverse and includes a complex delta estuary, a broad flat plain, and two large, shallow ponds, Tennant Lake and Clay (Brennan) Pond. Both sides of the river are diked, either directly along the existing river channel or set back a short distance from the bank. The banks are heavily riprapped, especially adjacent to the levee.

Reach 2 extends from the I-5 Bridge at Ferndale to the Guide Meridian Bridge, just southwest of Lynden. The river channel is characterized by looped meanders, and relatively small gravel bars. Natural topography along the river includes discontinuous natural levees formed by sediments deposited during flooding. Constructed levees confine the river to a narrow channel along much of Reach 2. A portion of the river in and upstream of Ferndale is not diked.

Reach 3 includes the portion of the Nooksack River between the Everson Bridge and the Guide Meridian Bridge and marks the transition from the braided, unstable channel upstream to the more stable, meandering river channel and broader floodplain that are



typical downstream.

each 4 is the uppermost reach in the CFHMP study area. It extends from the Everson Bridge to the confluence of the Middle, North, and South Forks at Deming. This reach is noticeably different than the lower reaches, primarily because of the steep slope of the active channel. Not only does the channel split into multiple paths at many locations, forming a braided channel, but over time it moves laterally across the floodplain.

Reach 5 is not actually a part of the Nooksack River mainstem, but is a flood overflow corridor originating at the Nooksack River, near Everson, and flowing north to the United States/Canada border. At the City of Everson, a low divide separates the Nooksack River basin from the Sumas River basin, where waters flow northward to the Fraser River in B.C. During large floods in the Nooksack, floodwaters flow along the corridor of Johnson Creek through the City of Sumas and over the international border into Abbotsford, B.C.

Flooding Causes

Many factors combine to cause flooding along the Lower Nooksack. River gradient and weather patterns are some of the more significant factors.

River Gradient that Affects Flooding – One of the most important characteristics of the Lower Nooksack River is the change in river gradient from Deming to Bellingham Bay. As mentioned previously, Reach 4 is steep and constantly migrating within a narrow floodplain. Within Reach 4, many abandoned side channels can accommodate floodwaters. In contrast, the lower reaches are flatter with wider floodplains. Side channels in Reaches 1, 2, and 3 have largely been filled and replaced with agricultural fields. Levees have been constructed along these reaches to protect fields, farmhouses, and roadways.

Weather Patterns that Cause Flooding -Heavy fall and winter rainfall in Whatcom County results from an effect called orographic lift. This heavy rainfall, along with the large area feeding into the Nooksack River and extreme slopes, results in large amounts of runoff that quickly reach the flat floodplains along Reaches 1, 2, and 3. Rainfall varies across the watershed and is significantly greater in the mountains. During the 1990 Veterans Day flood, approximately 14 inches of rain fell in the upper reaches of the watershed over 3 days, with snow melt adding an extra 2 inches. During the same storm, Bellingham only recorded 5 inches of rain.

The worst flooding tends to occur during the “Atmospheric River” weather pattern of the fall and winter. Atmospheric river fronts bring warm, wet air into the watershed, resulting in heavy rainfall. If snow has accumulated in the mountains when the warm rains begin, snowmelt can



increase runoff to the river. As the snowpack builds through winter, it can also act as a “sponge” during intense rainfalls, storing water and attenuating flood peaks. Runoff is most severe when preceding steady rains have saturated soils within the watershed. Together, the conditions of heavy rain, early snowpack, and saturated soils create the potential for severe flooding.

2. Upper Forks of Nooksack River

The North, Middle, and South Forks of the Nooksack River comprise the upper watershed for the Lower Nooksack River. The headwaters of the North and Middle Forks originate on the flanks of Mount Baker while the South Fork drains the Twin Sisters range, resulting in steep mountainous terrain in their upper basins. The lower portions of the forks include flatter valleys as the rivers drain off the Cascade Foothills and enter into broader valleys shaped in part by past glacial activity.

The North Fork of the Nooksack River generally experiences higher snowfall amounts, which can act to absorb some runoff associated with heavy rainfall and attenuate flood peaks. The South Fork has much of its upper basin at lower elevations than the North Fork and generally responds more quickly to a storm event. During weather patterns like the atmospheric rivers all three forks can experience significant flooding.

Due to the mountainous terrain in their upper watersheds, all three forks have significant sediment sources. As the sediment is routed through the systems, significant channel migration can occur, putting public infrastructure and private property at risk.

3. Coastal Flooding

High winds off the coast combined with high tides and low atmospheric pressures can result in coastal flooding along the western edge of Whatcom County. The main coastal communities impacted by coastal flooding are Sandy Point, Birch Bay, Point Roberts, and Lummi Peninsula. Damages can include structural damage to residences and seawalls as large debris is carried by waves hitting the shoreline, inundation damage to structures, and debris accumulation and flooding of roadways. In some areas where the shoreline is a bluff, coastal erosion and/or improper drainage can threaten the structural integrity of residential structures and the stability of the bluff itself. See the Coastal Flooding Section below.



C. RECENT HISTORY IN WHATCOM COUNTY

1. Lower Nooksack River

Table 3 lists the largest recorded Lower Nooksack River floods as recorded at the Deming/Cedarville and Ferndale stream gages.

Table 3. Largest Recorded Nooksack River Flood Events

Date	Deming Flow* (cfs)	Ferndale Flow (CFS)	Overflow in Everson causing Flood Damage
1/25/1935	39,600	---	Yes
10/25/1945	38,000	41,600	Yes
11/27/1949	36,500	27,500	Yes
2/10/1951	43,200	55,000	Yes
11/03/1955	38,500	35,000	Yes
1/30/1971	---	38,100	Yes
12/3/1975	40,300	46,700	Yes
12/15/1979	---	36,400	No
1/4/1984	---	41,500	Yes
11/23/1986	---	36,000	No
11/9/1989	36,500	47,800	Yes
11/10/1990	37,900	57,000	Yes
11/24/1990	35,100	56,600	Yes
10/17/2003	50,800	39,900	No
11/24/2004	53,200	42,300	No
11/6/2006	56,300 (Cedarville)	38,100	Yes
1/9/2009	50,700 (Cedarville)**	51,700**	Yes
12/12/2010	44,500 (Cedarville)	38,200	No
1/17/2011	42,600 (Cedarville)	36,300	No
11/17/2015	40,800 (Cedarville)	27,000	No
2/1/2020	37,400*** (Cedarville)	37,000	Yes

* The Deming gage is subject to significant bed instability during flood events. Peak flows reported for Deming are prone to error. In 2005, the Deming gage was replaced with the Cedarville gage, located 5.2 miles downstream.

** Hydraulic modeling and comparison of simulated results to observed conditions suggests that the actual flow passing the Deming gage was likely closer to 63,000 cfs during the 11/10/1990 flood, illustrating the potential error in the Deming gage record.

*** USGS flow data for the 2/1/2020 flood event is provisional; hydraulic model calibration is ongoing and suggests that the flows at Cedarville may have been higher than reported.



2. Upper Forks of Nooksack River

Generally, the same weather patterns that cause flooding on the lower Nooksack River also result in flooding conditions on one or more of the three upper forks. These same weather patterns can cause landslides that can form temporary landslide dams when they enter tributaries to the forks. Floods much larger than might be expected for a stream of that size can result when the dams breach. These tributary floods may not be easily detected at a gauging station in the fork itself or downstream due to the relatively larger capacity of the fork floodplain.

D. VULNERABILITY ASSESSMENT

Understanding existing flood patterns, and the relationship between flooding and existing flood management structures, provides a basis for predicting circumstances of future flood events.

1. Lower Nooksack River

The following summary describes historic flooding patterns and problems of the Lower Nooksack River. Please note that right and left bank locations are designated facing downstream.

Reach 1 Flooding Patterns

Ferndale Area – The residential area on the right bank upstream of the Burlington Northern Railroad bridge experiences flooding during major events, as do commercial properties along Main Street on the left bank and a former golf course. Based on the results of recent modeling analyses, most of the right bank levee in Ferndale extending downstream from the Main Street bridge provides protection from floods as large as the 100-year event, except for a gap located adjacent to the two water treatment facilities operated by City of Ferndale and the PUD. Significant flood fighting efforts near the water treatment plants were necessary in 1990 to and 2009 to prevent floodwaters from overtopping Ferndale Road. The City has filled the gap in the levee with super sacks (large sand bags) as an interim measure until a more permanent solution can be implemented.

Right Bank Downstream of Ferndale – Flooding at Marine Drive and Ferndale Road is frequent, beginning with events of low magnitude. Levee breaks result in inundation of Haxton Way, cutting off access to the Lummi Peninsula and Lummi Island. Other sites of right bank flooding along the reach depend upon levee protection. Levee breaches downstream of Slater Road generally result in flooding between the Nooksack River and



Lummi (Red) River south of Slater Road.

Left Bank Downstream of Ferndale – Floodwaters overtop the left bank between Slater Road and Marine Drive annually; if overtopping is of a long enough duration, both roadways can be flooded. At slightly higher flows, as the river rises to the approximate 5-year flood level, floodwaters also overtop high ground and levees immediately downstream of Ferndale in Hovander Park. Floodwaters travel through Hovander Park toward Tennant Lake and continue south toward and over Slater Road.

Marietta – Marietta experiences the most frequent flooding of any residential area along the Nooksack River and is susceptible to tidal influences that contribute to flooding. A levee surrounds Marietta, but is low and in poor condition, making it susceptible to overtopping and breaching. In both 1990 and 2009, Marietta residences sustained significant flood damage and residents were evacuated.

Overflow to Lummi Bay – Floodwaters flowing west toward Lummi Bay are stopped by the seawall and accumulate despite the two sets of culverts that drain the seawall. Floodwaters can overwhelm the capacity of the seawall, leading to seawall breaches, and allowing saltwater to flow inland when floodwaters recede. A set of six 48-inch-diameter culverts near the Lummi (Red) River mouth draining the area south of the river were replaced with five 6-foot by 4-foot box culverts in 1998. Tide gates in the culverts prevent saltwater from flowing inland as the tide rises. Three 5-foot by 5-foot box culverts drain the area north of the river.

Reach 2 Flooding Patterns

Overflows from Reach 3 – Floodwaters enter Reach 2 from Reach 3 under the Guide Meridian through the main channel bridge and overflow bridges north and south of the river in the floodplain. Main channel and left bank overflows are constricted by high ground on the left bank and levees along River Road on the right bank. Left bank overflows encounter a short section of levee and the natural high ground close to the river bank very shortly after passing under the south overflow bridge. The levee and high ground push the left bank overflow waters back into the river and toward right bank levees. Numerous historical breaches in the River Road levee are attributed to this constriction.

Right bank overflows enter Reach 2 behind the River Road levees through the north overflow bridge. Overflows reach levees along Fishtrap Creek, which funnel floodwaters south, closer to the main river channel, and on toward Bertrand Creek. These flows can



be augmented by overflows through breaches in levees along River Road.

Fishtrap Creek – Flood overflows pass from Reach 3 to Reach 2 through the north overflow bridge under Guide Meridian. Floodwaters encounter levees along Fishtrap Creek, which extend from just below Guide Meridian approximately 1.8 miles downstream. The levees limit bank overflows, but do not contain floodwaters during large flood events. The levees along both Fishtrap and Bertrand Creeks are intended to protect agricultural lands from spring flood events, but are not meant to provide protection during large flood events.

Bertrand Creek – Floodwaters that pass Fishtrap Creek reach Bertrand Creek, which is lined with levees on both sides. The Bertrand Creek levees are approximately perpendicular to flood flows, which causes floodwater to back up onto farmlands upstream of the creek. As a result, high velocity flows cause overtopping and levee breaches during almost every flood event. In 2006, the levees along Bertrand Creek were lowered and set back to reduce the frequency of levee failures and to lower upstream flood levels.

Left Bank Overflow Corridor – Levee overtopping has historically occurred on the Vanderpol property immediately downstream of the high ground on the left bank; floodwaters follow a natural overflow corridor along the reach. Left bank levees offer varying levels of protection, and floodwaters historically have overtopped the levees at various locations. Approximately two miles upstream of the I-5 bridge, near Lattimore Road, higher topography along the left bank guides floodwaters back into the river channel. A short distance upstream, a levee on the Appel property blocks flow returning to the river and has experienced repeated overtopping and failure.

Right Bank Downstream of Bertrand Creek – Floodwaters that pass Bertrand Creek continue along the right bank corridor to approximately the I-5 corridor. Levees offer sporadic protection along the right bank for three miles downstream of Bertrand Creek, but no levees are in place for the last three miles of the reach. Random overtopping of levees and river banks is typical.

Ferndale Area – Residential and commercial urban development is encroaching into the 100-year floodplain, increasing the possibility of flood damage. Several multifamily units and a commercial building have been constructed on the west side of the rivers downstream of the Main Street Bridge. Other developments in this location includes a new Park (Star Park) and several new buildings associated with Ferndale's Water



Treatment Plant. To the west of the Main Street Bridge, several commercial buildings, including 2 fast-food restaurants have been constructed.

Reach 3 Flooding Patterns

Levees along both banks have been built and repaired over the years by a variety of public agencies and private property owners, with no coordination of design and sometimes limited maintenance, resulting in a levee system prone to unpredictable breaches and misdirection of flows from natural overflow corridors and floodwater storage areas. Roadway overtopping is common, and floodwaters often remain trapped in depressional areas long after the flood peak passes. Bank erosion has historically been a problem.

Overflows in the Upper Portion of Reach 3 – Natural overflows exist on both banks north of Nolte Road, immediately downstream of Everson. Right bank overflows travel north toward Mormon Ditch and Kamm Creek. During large floods, this flow continues downstream over Hannegan Road, past the Lynden waste water treatment plant, and through the Guide Meridian north overflow bridge. Left bank overflows travel south to Scott Ditch, then west, and return to the river through Scott Ditch or through the south overflow bridge at Guide Meridian.

Hampton/Timon Road Area – The right bank near Northwood Road is a natural overflow. Floodwaters flow north toward Mormon Ditch and Kamm Creek. Floodwaters from upstream overflow on both banks, inundating and damaging roadways in their path, including Timon Road, Slotemaker Road, and Hampton Road on the right bank; and Noon Road, Polinder Road, and Abbott Road on the left bank. Six residences located near the confluence of Kamm Creek along Hampton Road are impacted by right bank overflows as well as by backflows from the Nooksack River up Kamm Creek.

Polinder Road Area – Two farmable levees have been constructed to overtop on the left bank above Polinder Road:

- a. North of the intersection of Polinder and Thiel Road on the Bedlington property
- b. The river bend just east of Hannegan Road on the Polinder property

Floodwaters from both overflows travel southwest toward Scott Ditch and the south overflow bridge at Guide Meridian.

Scott Ditch – Scott Ditch serves as a conduit for flows leaving the Nooksack's left bank along most of Reach 3.

Lynden Wastewater Treatment Plant – The floodplain is constricted by natural



topography as well as structures built in the area west of Hannegan Road. Floodwaters that overtop Hannegan Road must flow either back into the river upstream of the treatment plant or around the north side of the treatment plant and over the plant access road. As floodwaters recede, water backed up between the treatment plant and Hannegan Road drains back to the river by way of a ditch that begins east of the plant, is conveyed through a box culvert under the plant access road, and in a 48-inch culvert through the right bank river levee. The 48-inch levee culvert is failing and is not equipped with a floodgate and water can back up through the culvert when the river rises. Efforts to replace this culvert with a new side-hinge flood gate and upstream habitat improvements are underway with construction planned for 2021.

BC Avenue Area – On the right bank downstream of the treatment plant, there was an overflow on the Stremmer property south of BC Avenue in Lynden. The levee at this overflow was restored, strengthened, and raised by the USACE to prevent future overtopping after the 1990 floods.

Bylsma Road Area – There is an overflow on the left bank between Bylsma Road and the confluence of Scott Ditch and the river. Levees on the right bank opposite this overflow historically overtop.

Guide Meridian Overflow Bridges – The Guide Meridian was supported on piles to let floodwaters pass beneath, through the Nooksack River floodplain, until around 1950. Floodwaters are now conveyed through overflow bridges that convey a significant portion of Reach 3 overflows downstream to Reach 2. As floodwaters pass through these narrow openings, flow velocity increases, potentially threatening the structural integrity of the bridges.

Reach 4 Flooding Patterns

With the relatively narrow floodplain and unstable, rapidly migrating river channel in Reach 4, the primary flood hazards are bank erosion and the threat of avulsion.

The Deming Area – At Deming, the river channel has migrated across the floodplain in the last two decades. Aerial photos show that in 1975, the river flowed on the opposite side of the floodplain from the community. By 1986, the river had moved 600 feet across the floodplain to its present location. Recent Nooksack River flooding has threatened the Mount Baker School District bus maintenance and sewage treatment facilities, along with the Walton properties along Deming Road on the right bank. At-risk properties are protected by riprap armoring. Immediately downstream of the riprap



protection, erosion occurs on the left bank from deflected flows from the right bank riprap.

Mariotta Road Area Right Bank – An overflow was created during 1990 floods in the vicinity of Mariotta Road by overtopping and eroding the right bank, resulting in bypassing of the existing river bend. Approximately one-third of the river's flow followed this new channel. Floodwaters returned to the main channel approximately 0.5 mile from Mariotta Road. After the 1990 flood, 2,000 feet of bank was restored and new riprap was placed along the right bank to prevent a similar future overflow. A bottleneck immediately downstream of the overflow creates stress on the left bank at an area known as the "Clay Banks." By preventing right bank overflows, the new riprap increases the force of floodwaters on the left bank downstream. The bottleneck created by accumulated sediment on the Sande property, on the inside of the river bend in this area (right bank), increases the force of flow on the left bank. Floodwaters that overflow the right bank between Deming and Nugent's Corner generally follow low topography and swales toward Smith Creek.

Left Bank – The left bank across from Mariotta Road is a steep hillside of silty clay soil that has been increasingly eroding. Slides from this hill have added silt, clay, and other sediment to the river. As the river undercuts the slope, the land sinks and slides. Groundwater seepage along the face of the hillside may also be destabilizing the slope. As the bluff fails, material accumulates at the base of the slope and this material acts to stabilize the slope for a period of typically 5 to 7 years. During this period, the river erodes through the accumulated material at the base of the bluff and causes the bank to become oversteepened and significant bluff failures resume. In 2006, significant bluff failures occurred, causing owners of two houses at the top of the bluff to abandon them when bank failures encroached too close to the structures. Bluff failures on February 14, 2014 and the night of February 20-21, 2014 were large enough that landslide debris temporarily blocked the Nooksack River each time. The latter event caused the downstream Cedarville stream flow gage to fall from ~2250 cfs to 400 cfs in a matter of minutes. Flows at the gage resumed a few hours later as the river reoccupied old channels along the opposite bank and cut around and through the landslide deposits.

Nugent's Corner – Flood fighting efforts in 1990 directed floodwaters around the commercial area, following a system of natural channels, but floodwaters damaged some sections of the community's residential area.

Mount Baker Highway Bridge – The Mount Baker Highway bridge at Nugent's Corner is the only bridge over the river in Reach 4. A flood in 1989 washed out the left bank



approach to this bridge. Riprap was subsequently placed on the upstream side of the left bank bridge abutment to protect it. WSDOT replaced the bridge in approximately 2000.

Nugent's Corner to Everson – The river migrates across the floodplain between Nugent's Corner and Everson more than in any other river reach. Channel migration has resulted in erosion and loss of private property, primarily agricultural lands. Bank erosion is limited on the left bank, but the right bank has been heavily impacted by bank erosion. The channel capacity and natural terrain between Nugent's Corner and just upstream of Everson is high enough that floodwaters do not overtop the right bank along most of the section. During larger flood events, however, flood waters overtop the high ground divide, separating the Nooksack River and Sumas River basins, to flow toward Sumas, and sometimes into Canada.

Riverberry-Davis-Vandellen Properties – The Riverberry property includes a farm located approximately halfway between Everson and Nugent's Corner on the right bank. The river eroded between 30 and 40 acres of this site between 1985 and 1993, and an estimated additional 300 feet since that time. The river has meandered eastward approximately 250 linear feet (LF), eroding raspberry and pasture farmland. The continued erosion was diminishing the natural overbank high ground, which was the basin divide between the Nooksack and Sumas basins, increasing the frequency of overland flow and potential for channel avulsion into the Everson–Sumas Overflow Corridor.

In 1997, Whatcom County completed a pilot project to provide fish habitat and bank stabilization on the property. The Riverberry-Davis site, approximately 2,200 LF, incorporates four rock deflectors and four dolo-rock deflectors with woody debris placed between the structures. The Vandellen site, approximately 900 LF, incorporates large organic debris and timber pilings to construct 19 deflector structures.

Everson Overflow Area – The high ground along the right bank south of Everson Road near Massey Road and upstream to the Vandellen property is the area where much of the overflow to Everson originates. The elevation of the riverbank is the first hydraulic control affecting the amount of flow that leaves the Nooksack basin. Emmerson Road serves as a secondary control as some of the flow overtops the road and flows north while the rest of the flow is channeled back to the river by the levee constructed to protect Everson after the 1990 flood. In 2006, the revetment protecting the high ground divide east of Emmerson Road was reconstructed to prevent erosion of the high ground control.



Left Bank Overflow Corridor Opposite Everson – The river has historically overtopped a left bank levee immediately upstream of Everson. Floodwaters follow the low topography through agricultural areas for approximately 1 mile prior to flowing through a large arch culvert under Everson-Goshen Road (SR 544) and returning to the river.

Reach 5 Flooding Patterns

Floodwaters leave the river channel and overflow through Everson at three locations:

1. South (upstream) of Massey Road
2. Along Emerson Road between Massey Road and Everson
3. Approximately 1,500 feet upstream of the Everson Bridge

Floodwaters from the three overflow sites combine after crossing Massey and Emerson Roads and flow northward over Main Street in Everson and into the Johnson Creek basin. A railroad embankment prevents floodwaters from entering the Sumas River until they reach the vicinity of the City of Sumas. During small overflow events, floodwaters pass over fields and enter a drainage ditch that empties into Johnson Creek just north of Lindsay Road. During major events, floodwaters fill Johnson Creek's valley floor and continue to Sumas, typically flooding the downtown area with several feet of water.

Everson – All major Nooksack River floods cause flooding in Everson. Floodwaters generally flow into Everson from the south along Washington Street and from the overflow area to the east. After the 1990 flood, a 1,000-foot levee, referred to locally as Lagerway Dike, was constructed immediately south of Everson. The levee provides some flood protection but is not high enough to prevent Everson from being flooded during a large overflow.

Sumas – During major floods, flows top the divide between the Nooksack and Sumas watersheds and flow north in the floodplain along Johnson Creek, eventually reaching the city of Sumas. Floodwaters often cross the United States/Canada border within hours of an overflow occurring in Sumas.

Sumas Prairie/Abbotsford (B.C.) – After passing through Sumas, floodwaters cross the border into the District of Abbotsford and along the Sumas River, overtopping the Sumas River's left bank. Floodwaters have historically backed up from the Whatcom Road interchange of the TransCanada Highway and ponded in the western portion of Wet Sumas Prairie, with some floodwater ponding in the Lower Sumas River, Saar Creek, and Arnold Slough. A dike prevents flooding of the reclaimed Sumas Lake Bottom, a



prime agricultural area.

Avulsion Potential at Everson – It is possible that an avulsion would redirect all or a portion of the Nooksack River from its present path to a northward path along the Johnson Creek corridor. The Johnson Creek corridor drops an average of 6 feet per mile over its 10-mile course, a slope twice as steep as the 3-foot-per-mile drop of the Nooksack River. This steeper slope enhances the tendency toward an avulsion. Geologic evidence indicates the Nooksack River previously flowed north at Everson into the Sumas River and Frasier River Basins.

A study commissioned by the B.C. Ministry of Environment, Lands, and Parks predicts the Nooksack River's right bank would have to erode 820 feet at a critical location for an avulsion to occur, and estimates the likelihood of this is 20 percent during a 100-year flood, a statistical occurrence of once every 500 years.

2. Upper Forks of Nooksack River

North Fork – The Mount Baker Highway (SR 542) runs parallel to the North Fork Nooksack River for much of its length. Channel erosion threatens the highway at several locations; WSDOT has constructed several projects to protect the highway, most recently in 2015, and is considering options to relocate the highway at several other locations with chronic bank erosion or flooding problems. The Mount Baker Highway crosses the North Fork at two locations. Portions of the highway are also subject to inundation during significant flood events, primarily near Maple Falls.

County roads that have the potential to be threatened by the North Fork include Truck Road, Rutsatz Road, and North Fork Road. Emergency projects were implemented to protect Rutsatz Road in 2016 and Truck Road in 2018. The 2020 flood caused additional damage to Truck Road. Bridges cross the river along Mosquito Lake Road and SR 9, just upstream of its confluence with the South Fork. Channel erosion and overbank flooding also affect rural residential and agricultural properties along the river.

Several tributaries to the North Fork also have the potential to flood SR 542 including Glacier, Gallup, Cornell, Canyon, Boulder, and Maple Creeks. Flooding at Boulder Creek in the mid-1980s closed the highway for days, stranding hundreds of residents and skiers east of the road closure.

Middle Fork – While the Middle Fork generally runs parallel to Mosquito Lake Road, it is far



enough away along most of its length that it does not pose a threat to the roadway. In 2004, the river eroded close enough to the road at one location upstream of Porter Creek that the roadway was undermined. Whatcom County relocated a section of roadway away from the failing slope so that access could be maintained. The County also took measures to stabilize the bridge at Mosquito Lake Road where it crosses the Middle Fork.

The City of Bellingham's diversion dam for diverting water from the Middle Fork into Lake Whatcom is also located on the Middle Fork approximately 2.5 miles upstream from the Mosquito Lake Road Bridge. Other infrastructure and property impacted by flooding and erosion on the Middle Fork is primarily private developments associated with rural residential and agricultural properties.

Porter and Canyon Lake Creeks, tributaries to the Middle Fork, have also flooded Mosquito Lake Road where it crosses the lower portion of their alluvial fans. The flooding blocked local access and caused damage to the road and to the county bridges.

South Fork – Similar to the other two forks, the South Fork flows through rural residential and agricultural properties for most of its length. The river flows through the town of Acme where overbank flow can damage residential and commercial properties. The water tank for the town's water district is located in the floodplain in Acme. A project to reduce the potential for channel erosion just upstream of Acme was implemented in 2009 to improve fish habitat and limit channel migration.

SR #9 crosses the South Fork in Acme and is inundated by floodwaters both north and south of the bridge, severely limiting access to the South Fork valley during moderate to large flood events. SR #9 also is flooded by the South Fork further downstream south of VanZandt.

Mosquito Lake Road is also flooded by the South Fork at several locations near Acme during relatively frequent flood events. In 2007, the river channel eroded to within 20 feet of the roadway, and Whatcom County in conjunction with the FCZD extended an existing revetment to protect the roadway. Other County roads impacted by the South Fork are Strand Road and Potter Roads; both roadways become impassable during significant flood events. Whatcom County recently replaced the Potter Road Bridge over the South Fork due to structural deficiencies and widened the river opening.



E. MITIGATION STRATEGIES

1. Lower Nooksack River

The Lower Nooksack River CFHMP recognizes that both the short and long term implementation of structural and nonstructural elements and activities must be implemented for the recommended plan to be fully functional. Both operational effectiveness and cost effectiveness must be periodically reviewed and adjusted throughout the life of the plan. A comprehensive and collaborative effort is underway to update the 1999 CFHMP and integrate it with the needs of salmon and floodplain land uses. The results of this effort, known as the Floodplain Integrated Planning (FLIP) process, are not yet available for this plan update.

Over the last twenty years, the FCZD has worked with the diking districts and subzones to get many of the Nooksack River levees eligible for rehabilitation in the USACE's Public Law (PL) 84-99 Program. In late 2013, the FCZD initiated the development of a System-wide Improvement Framework (SWIF) to address the deficiencies identified by the USACE during their biennial inspections of the levees in the program. This process requires establishing an interagency coordination team (ICT) to guide development of the plan, and incorporating environmental considerations to address threatened and endangered species and tribal treaty rights. The ICT developed for the SWIF includes representatives from federal, state and local resource agencies, as well as representatives from the diking districts and agricultural community. The goal of the SWIF process is to reduce flood risk and improve habitat, while keeping the levees eligible in the USACE's rehabilitation program. The plan was completed in 2017; ongoing implementation of the SWIF will keep the levees currently rated as unacceptable by the USACE eligible for repair. While the SWIF process was focused somewhat narrowly on the levee system, many on the ICT wanted to look at the floodplain more broadly. This led to the current FLIP process to update the CFHMP. The current version of the CFHMP recommends the following actions as part of the overall approach for flood hazard management:

- a. Hydraulic modeling and alternatives analysis
- b. Engineering and design of capital improvement projects
- c. Meander limit identification and adoption
- d. Sediment management strategy development
- e. Floodplain mapping and land use management in the floodplain
- f. Land and easement acquisition program development



g. Flood preparedness and emergency response

Since adoption of the CFHMP, significant work has been completed in all of these program areas. These efforts are summarized below; for additional information, contact Whatcom County Public Works, River and Flood Division.

Hydraulic Modeling and Alternatives Analysis - A detailed hydraulic model has been developed and calibrated, and initial alternatives analysis of many of the specific projects identified in the CFHMP has been completed. The model has recently been updated to include 2006 bathymetric and Light Detection and Ranging (LiDAR) data and the updated model has been calibrated to the 2004, 2006, and 2009 floods. The model is currently being used to update the FEMA floodplain maps. A new two-dimensional model based on 2015 bathymetry and 2013 LiDAR is currently being calibrated to more recent events in 2015, 2017, 2018 and 2020. The updated model is being used in the FLIP process and in detailed project design.

Engineering and Design of Capital Improvement Projects - The hydraulic model has been used to perform preliminary hydraulic analysis and design for many of the projects identified in the CFHMP as described below. Some projects, like lowering the Bertrand Creek levees have already been constructed, and others are still in the planning or detailed design phases.

Meander Limit Identification and Adoption - Mapping of historic channel locations, erosion hazard zones, and avulsion hazards has been completed for the entire Lower Nooksack River. Identification of meander limits must be completed in conjunction with design of the flood control system through the hydraulic modeling and alternatives analysis. Some of this work has been initiated for upper Reach 4, between Deming and Nugents Corner as part of the SWIF planning process and for the rest of the lower mainstem as part of the FLIP process.

Sediment Management Strategy Development - A proposed approach for development of a sediment management strategy was developed and distributed to the agencies involved in permitting gravel removal from the river. Feedback from the agencies indicated that existing data was insufficient to support an analysis that would have a small enough error to allow them to support a gravel removal request. In 2006, a detailed bathymetric survey of the river was performed to provide baseline data for future comparisons to estimate the amount of aggradation that may be occurring throughout the river. A preliminary sediment budget using available data suggests aggradation rates that would enable measurement and quantification in a period of 10 to 20 years.

A cooperative study to evaluate the potential impacts of ongoing sedimentation was completed by the US Geological Survey in 2019. The report shows that local channel bed elevations at the USGS streamflow gages vary over time in the range of 1-3 feet. The gage data show long-term



trends in bed elevation changes on the order of 1 foot per decade that persist years to decades. These trends in persistent aggradation and incision appear to originate in the North Fork and translate downstream over decades. The pattern of incision and aggradation in the North Fork correlates with the regional climate, where persistent incision follows extended cold and wet periods, and persistent aggradation follows extended warm and dry periods (USGS, 2019).

Floodplain Mapping and Land Use Management in the Floodplain - New floodplain mapping has been developed through FEMA's Cooperating Technical Partners (CTP) program for most of the rivers and streams in the County. The study included detailed mapping for the South Fork Nooksack River, and approximate methods and remapping flood elevations on more recent topography for the North and Middle Forks and many of the smaller streams throughout the. This new mapping was officially adopted by FEMA for use in the NFIP in 2019. Much work was done on the Lower Nooksack River as part of the mapping study, though a change in how FEMA treats levees delayed completion of the mapping for the Lower Nooksack. In 2020 FEMA shared draft work maps for the lower Nooksack River with the affected communities and is working to refine the mapping to try to address community concerns before releasing the preliminary maps to the public.

Land and Easement Acquisition Program Development - A program for land acquisition as a component of flood hazard management was adopted by the FCZD Board of Supervisors in 2000. Numerous acquisitions have been completed under this program as hazard mitigation or other funding becomes available and opportunities with willing land owners arise. Areas targeted for acquisition include Marietta, and the high hazard portions of the alluvial fans associated with Canyon Creek and Jones Creek. Additional lands have been acquired for capital project implementation, wetland mitigation and floodplain preservation.

Flood Preparedness and Emergency Response - Annual flood preparedness activities continue to be performed by the various agencies involved in emergency response with overall coordination by Whatcom County DEM. These activities include annual flood meetings, training of sector observers, sandbag training, and sandbag pre-deployment throughout the County.

The CFHMP also outlines recommended projects and programs to implement along the various reaches of the Lower Nooksack River. Below are recommended mitigation strategies for the five reaches of the Lower Nooksack. While many of these recommendations have only been developed to a conceptual level and more detailed hydraulic analysis and design are needed before they can be fully implemented, others have been fully implemented. For more details on these projects, refer to the CFHMP, available from Whatcom County's River and Flood Division, Public Works Department.



Mitigation for Reach 1

Lummi River – The recommended improvement for the Lummi River (Red River) is not to increase flows to the river but to rehabilitate existing culverts at the diversion from the Nooksack River, including a gate or similar flow control structure and modifying downstream structures, if necessary. While this project would do little to reduce flooding, significant habitat benefit could be provided.

The property where the Lummi River diversion is located was recently acquired by the FCZD; restoration alternatives will be evaluated as part of the FLIP process.

Between the Bridges in Ferndale – The recommended improvement is to designate the properties on the right bank for flood proofing and/or property buyouts, and maintain open space at Vander Yacht Park and the golf course on the left bank. Implementation of this recommendation should include defining and stabilizing the overflow path, which could potentially overtop I-5.

The FLIP process will include a cumulative impacts analysis of future planned development within the Nooksack River floodplain in the City of Ferndale.

Left Bank Downstream of Ferndale – The CFHMP recommendation for this area is to maintain the overflows in Hovander Park and maintain the existing natural overflow corridor along the left bank. With this approach, agricultural levees downstream from the overflow area that are not continuous now could be made continuous as maintenance and reconstruction is called for. The rebuilt levees' crest elevations should be the same as those of right bank agricultural levees downstream of Ferndale, and they should be built to withstand overtopping. Computer modeling of this recommendation will be required.

Since the adoption of the CFHMP, the properties in the left overbank floodplain between Slater Road and Marine Drive have been acquired by the Washington Department of Fish and Wildlife (WDFW). The levee on the WDFW property is continuous and its crest is at a lower elevation than the right bank levee, but it does provide some flood protection to Slater Road, Marine Drive, and Marietta during smaller, more frequent flood events. Damage to the crest and backslope of the levee was repaired in 2009 and 2018 to maintain this level of protection as an interim measure until other recommended mitigation measures can be implemented for these areas. Significant flooding during the 2020 flood resulted in more damage to the levee and another repair project is being developed for implementation in 2022.

Slater Road Bridge Approach – The initial CFHMP recommendation for this area is to



maintain Slater Road at its current elevation to allow overtopping and temporary road closures during floods. Eliminating overtopping of Slater Road on the left bank during large floods would be of little benefit at times when overtopping on the right bank during large floods inundates the road on the other side of the river. This recommendation should be reconsidered as traffic demands change with time and if special financing were to become available.

Since the adoption of the CFHMP, the Lummi Nation has pursued mitigation grant funding to raise the left approach to the Slater Road bridge to provide access during a 100-year event. Whatcom County and Lummi Nation initiated a project using Pre-Disaster Mitigation grant funding, but the project has been delayed due to increased costs for construction.

Marietta Area – The recommended improvement for the Marietta area is to designate all flood-prone properties in the community for buyout, so that owners would have the option to sell and relocate should federal purchase funds be made available after a future flood. In the interim, property owners are encouraged to flood proof their structures.

Since the CFHMP was adopted, the Whatcom County FCZD has acquired numerous properties within Marietta using a combination of local, state, and federal funds. The 2009 flood event caused extensive damage to residential properties, and a number of these acquisitions were completed after that flood event. Currently, over to half of the properties within Marietta are in public ownership and three additional properties were recently purchased under the Hazard Mitigation Grant Program.

Right Bank Downstream of Ferndale – The recommended improvement is a setback levee to provide 100-year flood protection and manage overflows to Lummi Bay. This improvement will require discussions with affected property owners. Existing agricultural levees along the right bank will remain overtoppable, but a right-bank overflow corridor will be in place, necessitating flood easements, flood proofing, and/or property buyouts in the corridor. Haxton Way will not have to be raised and the Lummi Seawall will not have to be rehabilitated.

Several alternative levee alignments were evaluated during the SWIF planning process and additional work is being performed under the FLIP process to try to determine a preferred alignment.

Treatment Plant and Ferndale, South of the Bridges – This improvement is to provide 100-year flood protection along the right bank downstream of Main Street by raising the



existing levee and Ferndale Road, and to connect the Ferndale Road levee to the recommended new levee downstream. This project will resolve several levee deficiencies noted during the USACE inspections and was identified as a high priority for implementation in the SWIF plan.

Funding for detailed design is underway using grant funding through DOE's Floodplains by Design (FbD) Program.

Marine Drive Bridge Approach – The bridge approach will be maintained at its current elevation to allow overtopping and temporary road closure during floods. Lowering the roadway will not be necessary with the recommended setback levee on the right bank to manage overflows to Lummi Bay.

Haxton Way – Implementation of the recommended right bank setback levee would minimize the occurrence of Haxton Way inundation, making the general raising of Haxton Way unnecessary. However, until the right bank cutoff levee recommendation is accepted and fully implemented, levee overtopping and levee breaches will likely continue. Under these circumstances, the raising of the lowest sections of Haxton Way as an interim action is considered appropriate.

Since the CFHMP was adopted, Diking District #1 has widened and added material to the backslope of much of the levee so it is less prone to failure during overtopping events. In addition, the hydraulic model indicates that most of the levee is high enough to prevent overtopping for events as large as the 100-year flood. These factors reduce the need for interim actions at Haxton Way.

Lummi Bay Seawall – The right bank setback levee will minimize inundation of the Lummi Bay seawall, so no significant capital improvements are recommended for the seawall. Continued maintenance of the existing structure and culverts and tidegates is recommended.

Mitigation for Reach 2

Ferndale Urban Area – Flood dynamics in the Ferndale urban area should be analyzed in detail, including an evaluation of the relationship between urbanization, flood storage and conveyance, and the potential for I-5 overtopping. Evaluation of an overflow path in the event of I-5 overtopping should also be included.

This work is being completed as part of the ongoing FLIP process.

River Road Area – A right-bank overflow area should be designated and the remaining



levee along River Road should be strengthened.

Fishtrap Creek – The possibility of lowering a segment of the levees to provide a wider flow path for overflows from the Nooksack River should be explored with local property owners. This approach will also require regular sediment removal from the creek in order to maintain channel capacity and/or reduction of sediment inflow from the creek's upper watershed.

Bertrand Creek – New levee profiles should be established along the creek and the levees should be designed to be overtoppable. Since adoption of the CFHMP, the levees along Bertand Creek were lowered and set back from the creek along most of the length within the Nooksack River floodplain. Flood and conservation easements were acquired over the lands between the old and new levee alignments. While these levees typically failed during every significant flood, during the January 2009 flood event, the levees overtopped for a long duration with only minimal damage to the levee system.

Guide Meridian & I-5 – A left bank overflow corridor should be designated between Guide Meridian and I-5.

Mitigation for Reach 3

Detailed Hydraulic Analysis – A program is recommended that includes strategically linking the river channel with the agricultural floodplain. The goal is to limit random bank/levee overtopping, random levee failure, and sudden development of off channel flood flow paths. This would be accomplished by distributing those flows that exceed channel capacity over the floodplain, thereby reducing levee and bank stress. Seven overflow locations would be analyzed under this program, as follows:

1. Right bank south of Slotemaker Road
2. Left bank near the west end of Nolte Road
3. Bend in the right bank south of Northwood Road
4. Left bank near the intersection of Polinder and Thiel Roads
5. Left bank in the bend upstream of the Polinder/Hannegan intersection
6. Right bank downstream of the Lynden treatment plant
7. Left bank northwest of Bylsma Road, upstream of where Scott Ditch enters the river

Since adoption of the CFHMP, initial hydraulic modeling and alternatives analysis has



been performed. This work suggests that creating an overflow at the last site near Blysmas Road may not be necessary, because it may reduce the effectiveness of the other overflows and redistribute flows between the overflow corridors. Additional analysis will be conducted with the updated hydraulic model during the FLIP process update to optimize the overflow locations, lengths, and elevations.

Strengthening of Roadway Sections – Strengthening of roadway sections should be performed along overflow corridors, as appropriate. Designating overflow locations will maintain the historical pattern of overtopping some roadways in the floodplain. The designated roadway areas are as follows:

- Slotemaker Road
- Timon Road
- Hampton Road
- Noon Road
- Thiel Road
- Polinder Road
- Hannegan Road

Guide Meridian Overflow Bridges – This improvement, in the short term, is to provide protection against erosion and scour through armoring. If the roadway is rebuilt in the future, opportunities for lengthening the bridges and/or creating additional openings should be investigated at that time.

Since the CFHMP was developed, WSDOT completed a widening project for the Guide Meridian that included the segment that crosses the Nooksack River floodplain. Whatcom County staff worked with WSDOT to refine the design of the overflow corridor openings to ensure no rise in flood elevations and provide additional capacity to accommodate overflows identified in the CFHMP. As a result, the newly constructed overflow bridges are of greater capacity and box culverts were added in each overflow corridor.

Mitigation for Reach 4

Limiting of Channel Migration – Reasonable limits for channel migration and the prevention of a right bank avulsion are recommended with three levels of priority:



1. Immediate action to move the channel away from limits mapped as part of the CFHMP
2. Future action when the channel is moving toward the meander limits
3. Long-term, ongoing future action to move the channel toward the middle of the corridor along Reach

This action is called for at the following sites:

- In Deming near the Mount Baker High School
- Southwest of Williams Road, downstream from Deming
- West of Mariotta Road
- The property west of Hopewell Road
- The property just south of Massey Road and west of Cole Road

Deming Right Bank Areas at High Risk of Avulsion -- The adopted CFHMP identifies three projects, for this portion of the reach as discussed below. Through the SWIF planning process, several alternative levee alignments were evaluated; additional work is needed during the FLIP process and the relevance of these projects will be revisited in that work.

1. New protection should be added downstream of Deming and the existing protection at the high school should be shortened
2. Existing bank protection south of Williams Road should be ensured to provide avulsion protection
3. New protection should be added between the protection projects already in place on the Sande property and west of Marietta Road

Mariotta Road – At Mariotta Road, 300 feet should be removed from the downstream end of the existing riprap protection, the remaining riprap should be tied into the right bank, and gravel should be removed from the bar on the right bank of Sande property. The remaining riprap should be retrofitted to reduce vulnerability to scour and increased fish habitat should be considered. Additional work on the left bank downstream of the clay banks may be warranted.

Nugent's Corner – Low levees should be constructed on the upstream and downstream



sides of the Mount Baker Highway Bridge. This improvement to Nugent's Corner should be given a lower priority than projects to prevent avulsion elsewhere in Reach 4.

Levees near Nugent's Corner – The existing overtopping levee upstream of Everson (on the left bank) should be maintained and strengthened, if necessary.

Several recent repairs to this levee (known as the Twin View Levee) have been completed in the past five years.

Mitigation for Reach 5

Everson Bridge – The stand of timber at the upstream end of the overflow on the river's right bank, approximately 1 mile upstream from the Everson Bridge, should be maintained. Additionally, an overtopping levee on the left bank in the same area should be retrofitted and maintained.

Nooksack River and Johnson Creek Watersheds – Maintenance of the divide between the Nooksack and Johnson Creek watershed involves structurally maintaining the divide with an aggressive alternative, a rock trench, as well as discussions with property owners to ensure local farming activities do not involve fields along the divide and changing ground elevation. The second measure is to provide continuous hard protection along the entire length of the overflow from the Nooksack River to the Johnson Creek corridor.

Since the CFHMP was adopted, 1,200 feet of the revetment along the riverbank at the Everson overflow near Massey Road was reconstructed. Prior to this project, the high ground divide was being eroded by the river. Emergency projects were constructed in 2003, 2005, and 2006 to curb this erosion until a more extensive project could be constructed in the summer of 2006.

Recent flooding including during the 2020 flood has caused bank instability damage downstream of the Trans Mountain pipeline crossing. Efforts are underway to develop a project to address this new damage.

2. Upper Forks of Nooksack River

Comprehensive flood hazard management plans have not been developed for any of the three upper forks. The FLIP process will include recommendations to address flood issues for the upper forks as part of the final plan. Some studies to support development of comprehensive



flood plans have been performed including the following:

- a. Mapping of historic channel locations, erosion hazard zones, and avulsion hazards for all three forks
- b. Development of a detailed hydraulic model for the South Fork Nooksack River
- c. Detailed floodplain studies to develop new floodplain mapping for the South Fork Nooksack River
- d. Updated approximate floodplain mapping for the North and Middle Forks using updated topographic data and historic channel migration mapping

While the FLIP process is underway, ongoing mitigation efforts will primarily consist of repair of existing flood control structures to protect existing infrastructure and implementation of the County's emergency preparedness, NFIP, and early flood warning programs.

3. Other Areas

Areas other than Nooksack River floodplains have been vulnerable to floods or isolation by flood waters in the past. This often relates to the presence of alluvial fans or smaller streams that can cause localized flooding, including in urban areas. Examples include the following areas:

- Austin Creek and Sudden Valley
- Smith Creek and North Shore Road
- Hillside Road
- Blue Canyon
- Iowa Heights
- Henderson Road
- Mount Baker Highway Communities, as discussed above
- Whatcom Creek and Iowa Street
- Squalicum Creek and Meridian Street and Roeder Avenue
- Double Ditch Creek and Double Ditch Road at Lynden

Residents of Whatcom County should understand the flood potential of areas in which they elect to live. It is important to remember that dangers associated with flooding do not end



when the rain stops. Electrocution, structural collapse, hazardous materials leaks, and fire are secondary hazards associated with flooding and flood cleanup.



COSTAL FLOODING (Including Storm Surge)

A. DEFINITIONS

Coastal Flooding An inundation of dry land with water caused by weather phenomena and events that push coastal waters onto the shore at levels that are above Mean High High Water due to the effects of wind, surge and atmospheric pressure. As coastal flood is generally a temporary condition that recedes when the tide begins to ebb.

Coastal Floodplain The land area of a coastal area that becomes inundated with water during coastal flooding.

National Flood Insurance Program A federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. The NFIP is designed to provide insurance as an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their content caused by floods. When a community chooses to participate in the NFIP, they agree to adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas. In exchange, the federal government agrees to make flood insurance available within the community as a financial protection against flood losses.

B. BACKGROUND INFORMATION

A **coastal flood**, or the inundation of land areas along the coast, is caused by higher than average high tide and worsened by heavy rainfall and onshore winds. **Storm surge** is an abnormal rise in water level in coastal areas, over and above the regular astronomical tide, caused by forces generated from a severe storm's wind, waves, and low atmospheric pressure. Storm surge is dangerous, because it is capable of flooding large coastal areas. Extreme flooding can occur in coastal areas particularly when storm surge coincides with normal high tide.

High winds off the coast combined with high tides and low atmospheric pressures can result in coastal flooding along the western edge of Whatcom County. The main coastal communities impacted by coastal flooding are Sandy Point, Birch Bay, Point Roberts, and Lummi Peninsula. Damages can include structural damage to residences and seawalls as large debris is carried by waves hitting the shoreline, inundation damage to structures, and debris accumulation and flooding of roadways. In some areas where the shoreline is a bluff, coastal erosion and/or



improper drainage can threaten the structural integrity of residential structures and the stability of the bluff itself.

In Whatcom County many areas are subject to coastal flooding, principally Sandy Point, Birch Bay, Point Roberts, Lummi Island and the Lummi Peninsula.

C. RECENT HISTORY IN WHATCOM COUNTY

Recent significant coastal flooding events are summarized as follows:

**October 12, 1962
(Columbus Day)** The inclusion of the infamous “Columbus Day Storm” is primarily due to it being the wind storm for which virtually all other Pacific Northwest wind storms are compared. Although actual tidal information is not available, extreme low pressure and south/southeasterly winds of nearly 100 miles per hour likely created significantly higher than predicted sea levels and waves large enough to result in some coastal flooding. However, reports of the timing of the strongest winds during the storm indicate that they coincided closely with a low tide in the area. Further, any coastal flooding would have been moderated by the fact that the predicted high tides were at least 1 foot lower than high tides generally predicted during mid-winter months. The largely undeveloped state of southerly and southeasterly shores of Sandy Point, Birch Bay Village area, Point Roberts, Lummi Island, Lummi Peninsula, Eliza Island, etc. would have also minimized any property damage due to coastal flooding. Newspaper articles about the storm largely focused on damage and problems on land and water due to the wind with no mention of coastal flooding.

**March 30, 1975
(Easter Sunday)** Extremely strong northwesterly wind coincided with a predicted 6:21 a.m. high tide of 8.98 feet mean lower low water (MLLW), causing coastal flooding, especially along the west shore of Sandy Point. The northwesterly/westerly facing shoreline of Birch Bay was also likely impacted. Many homes and property along Sucia Drive suffered damage of varying degrees.

December 16, 1982 Strong westerly and southwesterly wind coincided with low pressure to create a record high tide of 12.93 feet MLLW (Cherry Point) that was 2.90



feet above the predicted level of 10.03 feet MLLW. Significant coastal flooding and damage, including low-lying inland areas, occurred in the Birch Bay, Sandy Point, and Gooseberry Point areas. Legoe Bay Road on Lummi Island and roads and property along the south shore of Point Roberts were also flooded.

December 4, 1993 Strong westerly wind of 45 to 50 miles per hour (mph) with gusts to 68 mph reportedly coincided with high tide and low pressure to create coastal flooding along the westerly facing shorelines of Sandy Point and Birch Bay. Newspaper accounts reported minor damage to homes as well as water and debris on Sucia Drive and Birch Bay Drive. Actual tidal levels are not available, but at Cherry Point high tide was predicted at 9:36 a.m. to be 9.97 feet MLLW; the actual height was likely significantly higher.

December 15, 2000 Reported 70 mph northwesterly winds caused coastal flooding along the westerly shores of Sandy Point and Birch Bay as a rising tide approached a predicted 9:21 a.m. high tide (Cherry Point) of 10.64 feet MLLW. Several dozen homes and property along Sucia Drive were especially hard hit, suffering damage of varying degrees. Most of the damage occurred as much as two or more hours prior to the predicted high tide when the winds were strongest out of the northwest and the tide level was rising between the 8 to 10 foot MLLW range. The wind had eased and shifted to northeast (off-shore) by the time of high tide.

December 14, 2001 Almost exactly one year after the December 15, 2000 event, very similar coastal flooding and damage occurred at Sandy Point and Birch Bay. Strong northwesterly winds closely coincided with an observed 6:12 a.m. Cherry Point high tide of 10.58 feet MLLW. The observed tidal levels were 0.5 to 1 foot higher than predicted during the period of strongest winds due to low pressure. Damages were less extensive than the previous year because the County's Division of Emergency Management contacted homeowners prior to the event to warn them of the upcoming potential for coastal flooding. Property owners were able to take protective measures to reduce property damage.



February 4, 2006 Strong southeasterly wind coincided with extreme low pressure to create a 9:06 a.m. high tide of 12.34 feet MLLW that was 2.44 feet higher than the predicted 9.90 feet. Significant coastal flooding occurred in virtually all vulnerable coastal areas, including Sandy Point, Gooseberry Point, along the northerly shore of Birch Bay, the southeasterly shore of the Lummi Peninsula (Lummi Shore Road area), and the southerly shore and the Maple Beach/Bay View Drive areas of Point Roberts.

December 17, 2012 Strong westerly winds coincided with a low pressure system (+/-980 mb), resulting in a 9:00 am high tide of 11.94 feet (MLLW) that was 1.4 feet higher than the predicted 10.53 feet (MLLW) at Cherry Point. Moderate flooding and damage occurred along westerly facing shorelines, primarily at Birch Bay, Neptune Beach/Sandy Point, and Gooseberry Point areas. Water overtopped and deposited woody debris and seaweed along much of Birch Bay Drive resulting in temporary closure of much of the road from the State Park to the Cottonwood Beach area. Flooding occurred around and in many homes in the area with damage largely limited to water issues, although some structural damage likely occurred to buildings along the shoreline that were exposed to waves and large woody debris. Sucia Drive and several homes were also flooded in the vicinity of 4783 Sucia Drive. It is noteworthy that much of the flooding/damage occurred as much as 2 hours prior to high tide when the Cherry Point water level was only at about 10-11 feet (MLLW) due to strong northwest/westerly wind and resulting waves that had subsided significantly by the time of highest tide at 9:00 am.

December 2019 Strong westerly winds coincided with a low-pressure system (+/-980 mb), resulting in a 1300 high tide of 13.4 feet (MLLW) that was 2.5 feet higher than the predicted 10.9 feet (MLLW) at Cherry Point. Significant flooding and damage occurred along westerly facing shorelines, primarily in Birch Bay, Blaine and Point Roberts. Water overtopped and deposited woody debris and seaweed along much of Birch Bay Drive resulting in temporary closure of much of the road from the State Park to the Cottonwood Beach area. This flooding also largely undercut and destroyed the southbound lanes of Birch Bay Drive resulting in a nearly one-year closure of the road



to one lane. Flooding occurred around and in many homes in the area with damage largely limited to water issues, although some structural damage likely occurred to buildings along the shoreline that were exposed to waves and large woody debris. It is noteworthy that much of the flooding/damage occurred as much as 2 hours prior to high tide when the Cherry Point water level was only at about 10-11 feet (MLLW) due to strong northwest/westerly wind and resulting waves that had subsided significantly by the time of highest tide at 1500.

D. VULNERABILITY ASSESSMENT

Sandy Point – Virtually the entire Sandy Point area, including the shoreline in the Neptune Beach area, is subject to coastal flooding, primarily due to a combination of high tidal levels and wind-driven waves from east through northwest. Homes and property along the shoreline are especially vulnerable to damage from wind-driven water and large debris. Homes and property on the interior of the peninsula are generally only subject to water damage due to flooding from high tide levels and wash over the shoreline properties. Virtually all roads within the peninsula, including the main access roads of Sucia Drive and Saltspring Drive, are subject to flooding. The Sandy Point Fire Hall on the east side of Sucia Drive south of Thetis Way is also subject to flooding.

Birch Bay – Virtually the entire non-bluff shoreline area of Birch Bay is subject to extensive coastal flooding, primarily due to a combination of high tidal levels and wind-driven waves from southwest through northwest. Homes and other residential structures, businesses, and properties in low areas along and near the shoreline are especially vulnerable to damage from wind-driven water and large debris. For the most part, residential structures and properties in low areas landward of shoreline properties in the Birch Bay Village development and along and including Birch Bay Drive and Birch Point Road are only subject to water damage due to flooding from high tide levels and wash over the shoreline roads and properties. Flood waters between Alderson Road and the low area of the Sea Links development can extend almost 1 mile inland to Blaine Road. High tidal levels, waves, and storm surge can also restrict the outflow of Terrell Creek, resulting in flooding of residential structures, properties, and roads in low areas adjacent to or in the vicinity of Terrell Creek, such as the Birch Bay Park and Leisure Park development areas. Land and structures along the shoreline and in the low areas of Birch Bay State Park along Terrell Creek are also subject to coastal flooding. Most of the bluff areas along the shoreline are subject to slope instability due to erosion from high tidal levels and wind-driven waves.



Point Roberts – The entire shoreline area of Point Roberts is subject to coastal flooding, especially in the non-bluff areas, primarily due to a combination of high tidal levels and wind-driven waves from the northwest through northeast. Residential and business structures and properties along low-lying shoreline areas along the westerly, southerly, and easterly shore are especially vulnerable to damage from wind-driven water and large debris. Generally, residential structures, properties, and roads in low areas landward of shoreline properties along Marine Drive and Edwards Drive are not prone to significant flooding due to the Point Roberts Dike (Point Roberts Diking District is non-active) and detention of upland drainage in the canal in the vicinity of and around the Point Roberts Marina. However, residential structures, businesses, and properties adjacent to and along Bay View Drive in the Maple Beach area are vulnerable to damage from wind-driven waves, splash, and debris over the seawall. Structures and properties in low areas landward of the properties fronting Bay View Drive are generally only subject to water damage from coastal flooding. A portion of Whatcom County's Lighthouse Marine Park is subject to coastal flooding. Most of the bluff areas along the shoreline are subject to slope instability due to erosion from high tidal levels and wind-driven waves.

Lummi Peninsula – The entire shoreline area of the Lummi Peninsula is subject to coastal flooding, especially in the non-bluff areas, primarily due to a combination of high tidal levels and wind-driven waves from the northwest through southeast. Low-lying residential and business structures and properties along the shoreline in the Gooseberry Point area are especially vulnerable to damage from wind-driven water and large debris. For the most part, residential structures, properties, and roads in low areas landward of shoreline properties in the Gooseberry Point and Hermosa Beach areas, including Haxton Way, Lummi View Drive, and Lummi Shore Road, are only subject to water damage due to flooding from high tide levels and wash over the shoreline roads and properties. Most of the bluff areas along the shoreline are subject to slope instability due to erosion from high tidal levels and wind-driven waves.

Lummi Island – The two low areas on Lummi Island that are particularly vulnerable to damage from coastal flooding are Lummi Point and the Legoe Bay Road area immediately east of Village Point. Virtually the entire low area of Lummi Point has many residential structures and properties that are subject to flooding and damage from a combination of high tidal levels and waves from a southerly or northerly direction. The Legoe Bay Road area has residential and other structures and properties that are subject to flooding due to high tidal levels in combination with wind-driven waves from a southerly direction. The portion of Legoe Bay Road close to the shoreline in the low area is vulnerable to debris deposition and damage from erosion. Most of the non-rocky bluff areas along the westerly and easterly shorelines of Lummi Island shoreline are subject to slope instability due to erosion from high tidal levels and wind-driven waves.



E. MITIGATION STRATEGIES

In recent years, the level of development activity in areas prone to coastal flooding increased significantly. Whatcom County initiated a study to develop new floodplain mapping for several coastal areas in 2000. In 2004 and 2007, new mapping developed by the County with assistance from FEMA's CTP program was finalized for Sandy Point and Birch Bay. FEMA has developed new County-wide coastal floodplain maps. Other mitigation options for coastal areas could include working with homeowners to elevate and/or flood-proof structures or voluntary acquisition if these approaches are cost-effective and funding becomes available.

In 2019 and 2020 the Birch Bay Drive and Pedestrian Facility was installed along a 1 ½ mile stretch of Birch Bay Drive, which effectively created a 14' elevated berm and cost approximately \$12 million. This area was heavily impacted in previous storms. These types of structures could be considered for other shoreline areas in Whatcom County.



GEOLOGIC HAZARDS

A. DEFINITIONS

- Alluvial Fans** Lobate, or fan-shaped, gently sloping deposits of stream-deposited sediment (alluvium) located where a steep-gradient stream or canyon issues onto a broader, low-gradient valley floor, plain, or lake. The term alluvial fan encompasses debris flow fans, composite fans, and fan deltas.
- Landslide** A term that includes a wide range of ground movement, such as rock falls, deep-seated failure of slopes, and shallow debris avalanches and flows.
- Liquefaction** The loss of intergranular strength in saturated, loosely-packed sediment due to elevated pore pressures typically generated by seismic shaking during large magnitude earthquakes. Liquefaction can result in a loss of foundation bearing support and significant building damage, as well as lateral spreading, sand boils, and excessive ground settlement with associated disruption of utilities, roadway systems, and infrastructure.
- Seismic Hazard** Refers to areas subject to severe risk of earthquake damage, such as those areas underlain by sediments susceptible to liquefaction. Almost all of the lower Nooksack River floodplain is categorized as seismically hazardous, as are areas underlain by peat soils (see the “Earthquakes” section for more information regarding seismic hazards).

B. BACKGROUND INFORMATION

Due to their presence in Whatcom County, as well as data availability, three geologic hazards were identified and analyzed as part of this Plan:

1. Alluvial Fans – All alluvial fan areas were classified as hazardous.
2. Coal Mines – Any areas on top of a historical coal mine were determined to be hazardous.
3. Landslides – Risk areas were determined based on slope gradient (specifically slope gradients greater than 15 degrees), underlying geology and soil saturation potential. Although slope gradients not a complete predictor of stability, it was a primary for determination, recognizing shallow rapid landslides tend to be triggered in the 33-35% plus range.



1. Alluvial Fans

Alluvial fans form where there is a sharp decrease in stream gradient and a loss of channel confinement, which results in decreased stream velocity and rapid sediment deposition; generally, where a stream or canyon issues onto a valley floor, plain, or lake. Active mass wasting processes in upland areas, including landslides and erosion, function as the primary catalyst for the natural introduction of fine to coarse grained sediment, soil material, and woody debris to stream channels in the Pacific Northwest. Sediment and debris generated by mass wasting are introduced to stream channels, which may then be routed, either en masse by channelized landslide processes such as debris flows or floods, or incrementally via fluvial sediment transport processes. Stream bed aggradation on the alluvial fan surface due to fluvial, as well as episodic debris flow/flood deposition on low-gradient fan surfaces results in a continued potential for avulsion, or channel-switching, which, over long periods of time, creates the lobate, or fan-shaped morphology commonly observed in plan view for alluvial fans. These processes function continually on the small-scale, but extreme events occur episodically and contribute significantly to alluvial fan formation, as well as pose significant hazards to proximal development.

The majority of alluvial fans have been mapped in Whatcom County by the Washington Geological Survey. Alluvial fans can be expected to be present wherever a stream exits a steeper hillside or mountain and enters a broader valley floor such as the Nooksack River valley or a body of water such as Lake Whatcom, Lake Samish, Silver Lake, or Reed and Cain Lakes. The alluvial fans in Whatcom County are formed both by ongoing transport of fine- to coarse-grained sediment and woody debris by normal stream flow as well as periodic sediment-laden floods and debris flows. These latter two are generally triggered by landslides that enter the channel from the adjoining hillside. The landslide deposits then either continue moving down the channel, bulking with water to create a debris flow, or form a temporary landslide dam. A landslide dam can block stream flow and then fail catastrophically, releasing compounded sediment and water. Both sediment-laden floods and debris flows consist of a mixture of water, sediment, and debris that is routed through the steep stream channel during an event. The location and extent of alluvial fans in Whatcom County was greatly improved by the publication of the Whatcom County Landslide Inventory by the Washington State DNR Geological Survey in 2019. In addition to mapping deep-seated landslides, the inventory identified nearly 2,500 alluvial fans in Whatcom County using bare-earth imagery derived from high-resolution lidar data obtained in 2017.

Debris flows contain a higher proportion of sediment relative to water and can be particularly damaging due to the ability to scour and grow in sized as sediment and woody debris stored in



the channel is incorporated. This can produce a sediment volume at the fan that is many orders of magnitude larger than the initial landslide that triggered the event. When a debris flow reaches an alluvial fan, the debris may be quickly deposited within the existing stream channel leading to a channel avulsion, the sudden changing of stream course to a new channel. Both sediment-laden flood and debris flow material may run-out some distance from the head of the alluvial fan before fully depositing and may not follow a defined channel when doing so. In some instances, run-out has exceeded the previously mapped alluvial fan extent, which may, in part, be due to land clearing practices prevalent in river valleys. Examples of this are the debris flows that initiated on the west face of the Van Zandt Dike during the January 2009 flood event that ran out more than 600 feet from the base of the hillside, crossing private land and a county road before entering the South Fork floodplain. Potential run-out is not included on county geological hazard maps, which are primarily based on a coarse-scale geologic mapping efforts that did not specifically address alluvial fan hazards, and could be greatly improved by detailed assessment conducted by a qualified professional. In early 2021 the Washington State Legislature passed and funded Washington State Bill "SB5088-Landslide Hazard Mapping and Inventory", that will improve understanding of landslide and other geological hazards in Whatcom County. As noted above, the Washington Geological Survey published an updated deep-seated landslide and alluvial fan mapping product in 2020 (WGS Report of Investigations 42, February 2020).

2. Coal Mines

According to the *NW Source*, William H. Prattle, one of Bellingham's earliest settlers, responded to Native American tales of local coal outcroppings by opening a marginally successful coal mine in the settlement called Unionville in 1853. The same year, San Francisco investors opened the Sehome Mine, adjacent to the Whatcom settlement, and it became one of the two largest employers in the area until the mine was flooded in 1878. Coal mining ceased until the Bellingham Bay Company opened the largest mine in the state in the city's north end in 1918; it operated until 1951, when decreased demand led to its closure. Refer to Figure 2 for locations of the Bellingham area's primary historical mines.



Figure 2 shows the Bellingham area's historic mine locations.

In a January 2003 report titled "Preliminary Assessment of Bellingham Mines," the U.S. Environmental Protection Agency (EPA) assessed possible environmental problems related to 11 mines in and around Bellingham. Two other mines were inventoried, but not assessed, because their exact location was unknown. This report showed that hazardous substances were potentially present and could pose a threat to public health or the environment.

Along with the potential for toxic contamination from these historical mines, these sites pose a risk for ground failure and subsidence in downtown Bellingham and in the Birchwood neighborhood.

3. Landslides

Landslides occur along the hillsides and shorelines of Washington due to the area's steep mountainous terrain, miles of coastal bluffs, complex geology, high precipitation rate, both as rain and snow, abundance of unconsolidated glacial sediments, and tectonically active setting



astride the Cascadia Subduction Zone. Unstable landforms and landslide failure mechanisms have been recognized for decades, but that information has not always been widely known or used outside the geologic community. As the population of Washington grows, increasing pressures to develop in landslide-prone areas, or in landslide run-out zones, make basic knowledge about landslide hazards on the part of the general public more important.

A number of factors control landslide type and initiation. These include topography, underlying geology, soils, weather patterns and individual storms, surface- and groundwater, wave action, and human actions including rerouting of drainage by development, de-vegetation, and modification of existing topography. Typically, a landslide occurs when several factors converge and the forces allowing the hill to stay put are overcome by those influencing a move downhill driven by gravity. The following map shows the existing landslide hazards in Whatcom County.

A simplistic view of landslides divides them into two categories: shallow landslides where the depth of failure corresponds roughly to the rooting depth of mature forest vegetation; and deep-seated landslides where the failure plane may be 10's to 100's of feet deep. For shallow landslides, the presence of a healthy root network can effectively increase the forces holding the slope in place, while root strength is not an important factor for deep-seated landslides. Many slides on Puget Sound occur in a geologic setting that places permeable sand and gravel above less permeable layers of silt and clay, or bedrock. Water seeps downward through the upper materials and accumulates on the top of the underlying units, forming a zone of elevated pore pressure, which effectively acts to counter the normal force resisting slope failure. Gravity works more effectively on steeper slopes, such as the bluffs that surround Puget Sound, but more gradual slopes may also be vulnerable. Most slides in northwest Washington occur during or immediately after heavy rains. Shallow landslides often result from individual storms that provide significant precipitation over a matter of days. Deep-seated slides often respond to prolonged wet periods from January through March, and in some cases to multi-year climatic trends. This may correspond to an elevation of the water table. As water tables rise, slopes become less stable. In addition, wave action can erode the beach or the toe of a bluff, cutting into the slope, triggering or setting the stage for future slides. Human actions, most notably those that affect drainage patterns or groundwater, can trigger landslides. Clearing vegetation, poor drainage practices, and onsite septic systems can all add to the potential for landslides.



C. RECENT HISTORY IN WHATCOM COUNTY

1. Alluvial Fans

The last several decades have seen meteorological conditions and land use activities combine to produce increasingly frequent and severe consequences from debris and flooding events associated with streams in Whatcom County, due to increased platting and building on alluvial fans. This has also resulted in an increased awareness of the risks associated with alluvial fans, and several measures have been taken by the County to address the problem. Several studies have been prepared that examine the risks associated with a number of alluvial fans. These studies focus on fans with recent damage or with significant development and document the history of the alluvial fan assessed and the associated risks to human life and property and public infrastructure located on that fan. However, they do not provide an inclusive examination of all fans that are present on the landscape. Such an inventory is challenging because the fans can range from hundreds of acres in size to less than one acre. Many of those small fans have a single home on them so while the relative risk may be less, it is no less consequential to the current or future owners.

A study was conducted in 1983 in response to a storm in January of that year, where a number of debris flow events generated from failed forest roads and concave hillsides on the slopes of Stewart and Lookout Mountains caused major damage to property, roads, and bridges on alluvial fans in Lake Whatcom, the South Fork Nooksack River Valley¹ and the Austin Creek alluvial fan at Sudden Valley. The resulting report summarized the causes of these events, recommended mitigation measures, and designated hazards zones surrounding the streams that were examined.

Another report, *Alluvial Fan Hazard Areas*, issued by Whatcom County's Planning and Development Services Department in August 1992, presents an inventory and compilation of the major alluvial areas recognized at that time. Although this was an extensive study, many smaller alluvial fans were not assessed. The Washington Geological Survey completed a comprehensive inventory of Whatcom County alluvial fans using lidar imagery in 2020. The GIS shapefiles with alluvial fan locations were downloaded to the County GIS system and are available to county departments for their use and are available to the public through WDNR/WGS.

⁶ Weden and Associates, 1983. Alluvial Fans and Deltas Flood Hazard Areas. Report prepared for Whatcom County, 98 pages.



In January 2009, significant rainfall amounts combined with frozen ground conditions and snowmelt resulted in debris flows and landslides in several alluvial fan areas including Stewart Mountain into Lake Whatcom and South Fork Valley, the Van Zandt Dike, Sumas Mountain, Slide Mountain, Red Mountain, and Lake Samish Mountains. The debris flows generated by this storm impacted homes, farms, and public roadways. No injuries were reported, but some homes were rendered uninhabitable. Early reports indicated that more than 100 landslides were triggered by this landslide event in Whatcom County alone, with many more landslides likely to be found pending further investigation and coordinated reporting. The slides generated by this storm event were documented by Washington Department of Natural Resources geologists in a series of 9 site reports and a summary report (Powell et al. January 2010, Reconnaissance Study of Landslides Related to the January 2009 Storm in the Acme Watershed).

Smith and McCauley Creeks, located near Deming within Reach 4 of the Nooksack River floodplain (refer to the “Flooding” section Background Information or Mitigation Strategies), are other examples of relatively small alluvial fan areas. The Smith and McCauley Creek alluvial fans are shaped by both fluvial (stream flow driven) and debris flow events; this is typical of alluvial fans in Whatcom County. Stream avulsions, a sudden shift in channel location as one channel is abandoned and the stream shifts to a new path, have occurred during past events and are a fundamental mechanism responsible for creating the alluvial fan landform. Any residences and farm buildings on the alluvial fan are at risk. The McCauley Creek Flood Control District has constructed sediment traps on both these systems to try to reduce the risk to downstream properties.

The Whatcom County Flood Control District has performed detailed studies on four additional fans; a brief history of flooding on these fans follows.

Canyon Creek – A large debris flood event occurred on Canyon Creek in November 1989, destroying one residence. Two smaller debris flood events in November 1990 destroyed three additional residences and several hundred feet of Canyon View Drive, a County road within the Glacier Springs development. The deposits from each event indicate that sediment transport likely ranged from clearwater flood, to sediment laden flood, to true debris flow during the course of each storm event; these are referred to here as debris flood events for simplicity. Bank armor was installed along the west bank adjacent to the Glacier Springs development in summer 1990; this was destroyed or buried by the November 1990 events. A levee and flow deflection structures were constructed using FEMA funding in 1994; in November 1995, a predominantly clearwater flood damaged the recently-constructed project. Since 2000, acquisition of most of the highest risk properties on the fan has proceeded to reduce the risk to



life and property (see the “Mitigation” section). The acquisitions have allowed the County to remove the old levee and replace it with an 1850 feet long setback revetment that reconnects the creek to its floodplain where 23 engineered log jams have been installed to slow bank erosion and restore critical habitats for salmon, steelhead, and bulltrout.

Jones Creek – Significant debris flows occurred on the Jones Creek fan during January 1983 and January 2009. The 1983 debris flow destroyed a private log bridge at Galbraith Road and flattened approximately 4 acres of mature trees. The Turkington Road Bridge is a constriction that gets blocked by debris and sediment on top of the bridge deck and in the channel upstream. Debris depositing in the channel between Galbraith and Turkington Roads reduces channel capacity and results in water and sediment overflowing the right bank (looking downstream) and flowing down slope towards the town of Acme. This occurred during the 1983, 1990, and 2009 events. A small debris flow also occurred in 2004, but the event was not big enough to fill in the channel and cause overland flow. An active deep-seated landslide, the “Darrington Slide”, located approximately 4000’ upstream from Turkington Road constricts the Jones Creek channel and creates a partial dam and small impoundment of water upstream of the slide. The USGS installed a stream stage gage at Turkington Road to detect sudden drops in streamflow if the Darrington Slide were to move rapidly, form a larger landslide dam, and cut off streamflow temporarily while the dammed area fills with water and increases the potential for a landslide dam failure. The gage sends a warning to the Acme Fire District who then sends responders to check the creek at Turkington Road and to the landslide area to verify if landslide dam conditions are present so that an appropriate response can be instituted to protect the community members living in Acme if necessary. The County is working on a debris flow mitigation project to reduce risk through a combination of acquisition of high risk properties and construction of a berm designed to redirect debris flows and other events to an unpopulated portion of the alluvial fan.

Swift Creek – A significant debris flow event occurred in 1971 on Swift Creek. A large volume (estimated at 100,000 to 150,000 cubic yards) of sediment was delivered to the fan causing significant aggradation of the channel. Swift Creek flowed out of its bank to the north across South Pass Road towards Breckinridge Creek. Since then, Swift Creek has experienced extensive ongoing sedimentation of the stream channel originating from a very large, deep-seated landslide upstream on Sumas Mountain. This has resulted in the streambed becoming perched above adjacent properties in some locations. The County is currently working with state and federal agencies on a plan to manage on-going and future sedimentation on the Swift Creek alluvial fan and downstream reaches. This work is complicated by the presence of naturally occurring asbestos in the sediment originating from the landslide which necessitates additional precautions.



Glacier-Gallop Creeks- The Glacier Creek and Gallop Creek alluvial fans merge into a combined alluvial fan at the community of Glacier. A number of reports have been prepared over the years that document flood or debris flood impacts dating back as far as the 1930's. Several large floods of note have occurred including large ones in 1962 and 1963 and in 1989 and 1990 which threatened or caused damage to the highway bridge and other structures. A west bank levee on Glacier Creek was installed following the 1962 event to protect the west SR 542 abutment and the community of Glacier. This same levee was breached/overtopped during the November 1989 event sending Glacier Creek flow into the community where it combined with Gallop Creek floodwaters. State highway crews dug sediment from under both the Gallup and Glacier Creek bridges during the 1989 even to maintain flow under the bridge even as water raised high enough to splash onto the Glacier Bridge deck. Roads and homes in the Mt. Baker Rim development during were damaged during the 1989 and 1990 floods. The Glacier left (west) bank levee which was damaged again by several high water events over the past decade.

This brief history only provides examples of recent alluvial fan activity and is not meant to be exhaustive.

2. Coal Mines

The City of Bellingham abandoned underground mines that stretch from State Street to Sehome Hill and from Connecticut Street northwest to McLeod Road present significant hazards, mostly related to mine subsidence and collapse. Subsidence refers to a relatively slow settling of the overlying ground. Collapse of a mine roof can cause a sinkhole to form, creating a hazard. The Sehome mine workings under downtown Bellingham are relatively shallow and are thought to pose a greater sinkhole hazard than the Birchwood mine farther to the northwest, although a small sinkhole formed in the Birchwood neighborhood in the late 1980's or early 1990's.

3. Landslides

The susceptibility of Whatcom County to landslides is apparent from the examples provided by the numerous landslides listed in Table 4.

Table 4. Major Whatcom County Landslides Beginning With the Great Depression



Dates	Description
Great Depression Era	Cutting trees caused a very large Sehome Hill landslide toward Western Washington University.
October 1975	Following a heavy downpour, the State Street Boulevard hillside turned into wet mud and swept two cars over the 25-foot bank. 100 yards of mud slid onto the boulevard.
January 1983	A debris flood accompanied by landslides into Lake Whatcom took homes, cars, people, and pets into the lake and caused major flooding.
January 1983	A huge boulder rolled onto railroad tracks near Larrabee State Park, derailed 12 cars of a 66-car northbound Burlington Northern freight train, and tumbled the lead engine into the Bay.
1996	Landslides at Point Roberts destroyed several beachside vacation homes.
February 1997	Ground movement on Sumas Mountain resulted in the rupture of a 26-inch natural gas pipeline that subsequently exploded.
January 2009	In the storm-related Racehorse Creek Slide, a large rock avalanche in Chuckanut Formation moved approximately 650,000 cubic yards down Slide Mountain into Racehorse Creek.
January 2009	More than 100 storm-related landslides, primarily shallow, were triggered by a rain-on-snow event on top of potentially frozen ground.
May 31, 2013	A landslide off the north valley wall near the terminus of the Easton Glacier on Mount Baker initiated a debris flow that traveled ~3.5 miles down the Middle Fork Nooksack River. Fine grained sediment from this and 2 smaller events in June 2013 raised turbidity in the river to levels that required downstream municipal water intakes be shut down to avoid damage to the water treatment systems.
Ongoing; exacerbated	Continued landslide activity in glacial deposits at the “Clay Bank” on the south side of the Nooksack River 1.75 miles upstream from the SR

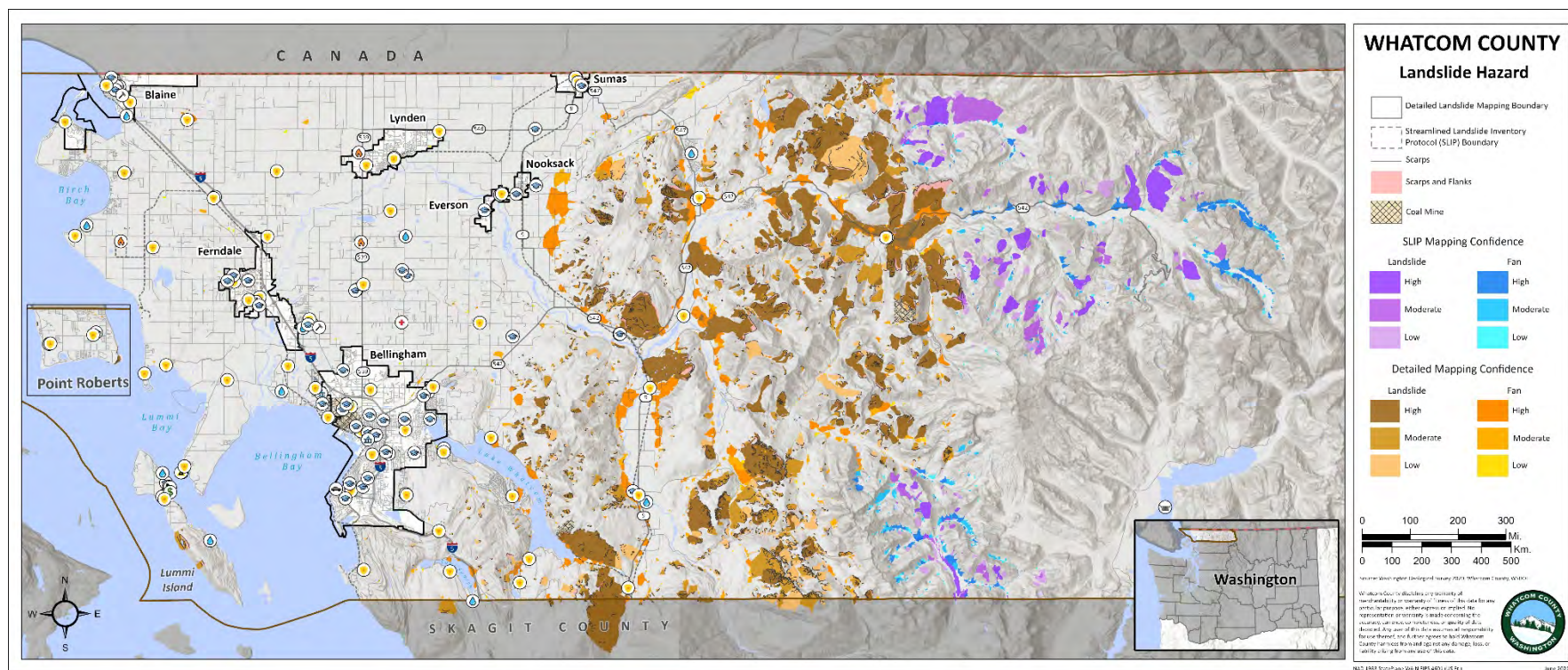


Dates	Description
activity January & February 2014, reactivation of 2006 slide area	542 Bridge at Cedarville temporarily dammed the river. Erosion of the slide deposits increased downstream turbidity. The 2014 landslides shifted the main flow towards the opposite bank where the main flow is now entrained along the levee. This has contributed to a reactivation and retreat of the 2006 slide area.
Ongoing	Rock slides occur onto I-5, south of Bellingham.
Ongoing	123,000 cubic yards of dirt and rock is carried from Sumas Mountain each year and deposited into Swift Creek. This debris and dirt are threatening several hundred acres of farmland near Everson and impacts multiple county roads.

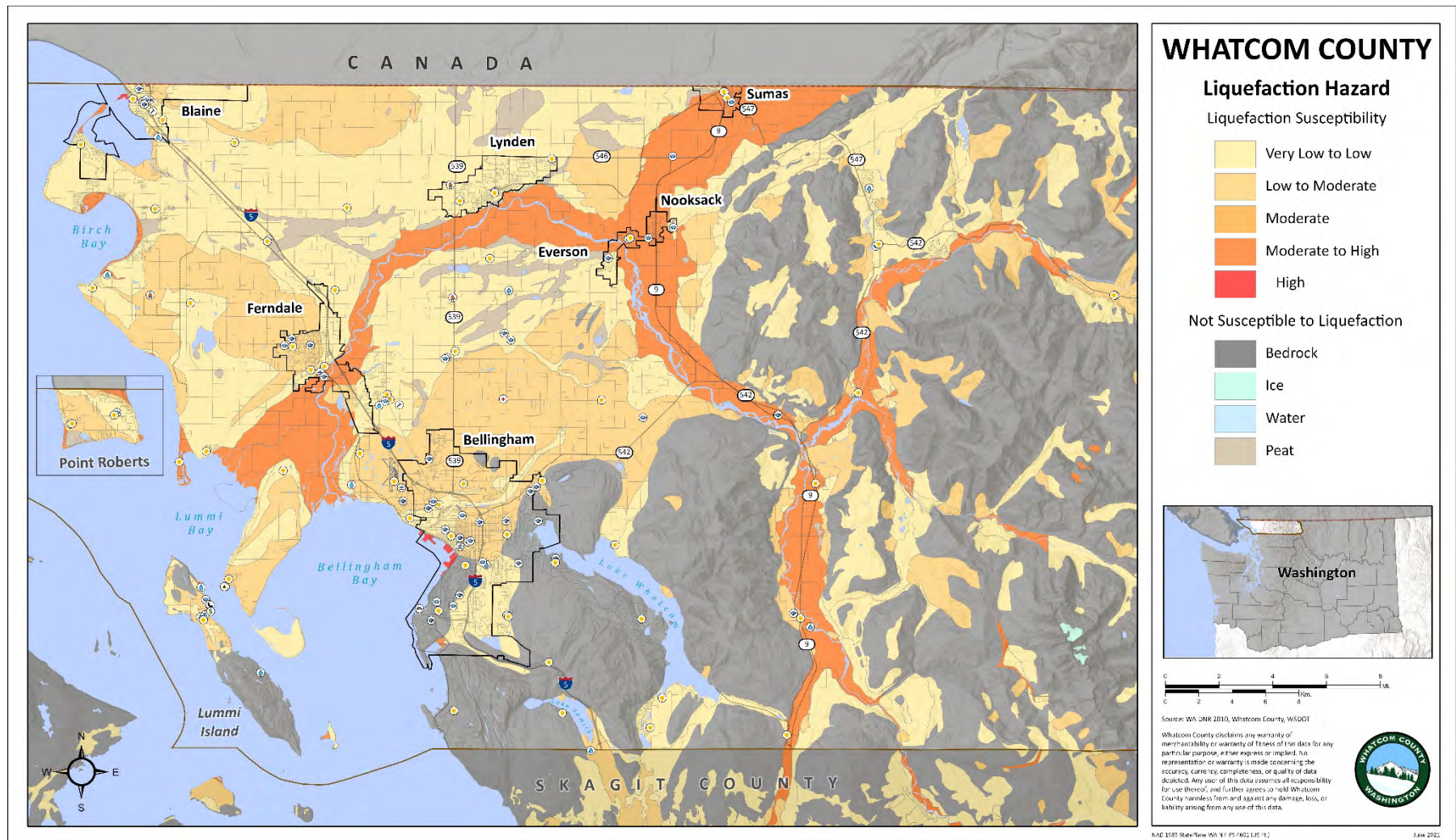
Hundreds of landslides have also been mapped in the forested upper watershed during watershed analysis and watershed restoration planning. Most of these landslides originated in forest land, but many routed to and deposited on lands where development, infrastructure, or agriculture occur. The location of deep-seated landslides in Whatcom County was greatly improved by the publication of the Whatcom County Landslide Inventory by the Washington State DNR Geological Survey in 2019. The Washington Geological Survey has recently completed mapping of large, deep-seated landslides throughout Whatcom County (WGS 2020) which expands on the existing mapping and is available through GIS.

4. Seismic Hazards

A history of seismic hazards is described in further detail in the “Earthquakes” section of this Plan.



Washington Geological Survey (WGS) 2020 Washington landslide inventory data compiled following streamline landslide mapping protocol (SLIP). SLIP was developed by the WGS's Landslide Hazards Program to help geologists rapidly map landslide landforms from lidar. This data shows both detailed mapping and SLIP landslide data. Landslides and alluvial fans are most prevalent in the Cascade foothills of eastern Whatcom County, on Lummi Island, and the southern end of Lake Whatcom. Coal mine areas, also shown on the map, are present in northwest Bellingham and south of Glacier.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



D. VULNERABILITY ASSESSMENT

1. Alluvial Fans

Detailed studies have examined specific alluvial fans in Whatcom County. The 1992 report, *Alluvial Fan Hazard Areas*, inventoried many of the alluvial fans that pose a risk to human life or property. It should be noted, characteristics of alluvial fan hazards identified in the report apply to all alluvial fans in Whatcom County whether or not the fan is mapped. More extensive alluvial fan mapping was done by Washington Geological Survey (2020) which captures the fans reported on in 1992 plus many smaller or less developed fans. The degree of risk depends on the specifics of an individual fan including the potential for upstream landslides to trigger and route through the stream channel to the fan and the nature and extent of development on the alluvial fan. An individual risk assessment should be performed by a qualified professional in the absence of specific information that has been prepared, to current risk assessment standards. Table 5 lists alluvial fans identified in the 1992 report (table also updated in 2010), as well as developments at risk.

Table 5. Alluvial Fan Inventory in Whatcom County

Alluvial Fan	Size	Developments/Structures at Risk
Lake Whatcom Watershed		
Austin Creek Fan	150 acres	Sudden Valley golf course, homes, private and County roads
Lake Louise 2 Fan	approximately 5 acres	Approximately 20 houses, driveways, three development roads, a path around the lake, and Lake Whatcom Boulevard
Albrecht's Fan	2.5 acres	County Rd., Lake Whatcom Blvd., the private bridge to the Albrecht residence, and the older buildings on the property
Wildwood Fan	16 acres	Wildwood has a very high population density during the summer months and provides trailer and boat storage during the rest of the year; at least 40 trailers, a general store, cabins, and Lake Whatcom Boulevard are at risk
South Blue Canyon Creek Fan	Data not available	The Blue Canyon Complex and approximately 11 homes; future development is planned, which will eliminate existing trees and further increase the risk in this area
Middle Blue Canyon Creek Fan	Data not available	Limited residences and a picnic area
North Blue Canyon Creek Fan	Data not available	Limited residences



Alluvial Fan	Size	Developments/Structures at Risk
Smith Creek Fan	107 acres	Residences and a bridge, which is located at the apex of the fan
Olsen Creek Fan	137 acres	30 homes
Carpenter Creek Fan	16.5 acres	15 buildings, including the local fire hall, and two County roads
Samish River and Lake Samish Watershed		
Barnes Creek Fan	Data not available	Residences and four roads: Interstate 5, East Lake Samish Rd., Old State Route 99, and Manley Rd.
Kinney Creek Fan	74 acres	Multiple residences on north shore of Lake Samish; fan impacted by January 2009 storm event, which damaged and closed North Lake Samish Drive
Reed Lake 2 Reed Lake 3 Reed Lake 4	620 acres	Approximately 30 homes, a clubhouse, and numerous roads in the Reed Lake development
North Fork, Nooksack River		
Glacier Creek Fan	Data not available	Town of Glacier, the Mount Baker Rim Development, a U.S. Forest Service Ranger Station, multiple restaurants, lodgings, approximately 45 houses and outbuildings, and Mount Baker Highway (SR 542)
Gallop Creek Fan	Data not available	Town of Glacier, 25 houses, restaurants, lodgings, the Glacier post office, county road/logging access road and bridge, and Mount Baker Highway; note that WSDOT has removed a lodge and cabins as part of a risk reduction project at Gallop Creek bridge
Cornell Creek Fan	90 acres	Approximately five houses, Mount Baker Highway, Cornell Creek Road, and a large wetland that may be salmon habitat
Canyon Creek Fan	210 acres	Glacier Springs Development and Mount Baker Highway. Note that acquisitions have removed development potential on ~30 lots and the former Logs Resort all in high alluvial fan risk zones. The 1994 levee that was at risk has been removed and replaced by a setback structure.
Boulder Creek Fan	126 acres	25 buildings of the Baptist camp, three roads, and Mount Baker Highway
Coal Creek Fan	Data not available	Small community located at the mouth of Coal Creek and Mount Baker Highway
Racehorse Creek Fan	246 acres	Five residences, several barns, a county road, a private access road, and a county bridge, all near Welcome, Washington
Bell Creek Fan	Data not available	Agricultural lands, Mount Baker Highway, eight residences, and two secondary roads
Middle Fork, Nooksack River		
Canyon Lake Creek	312 acres	Multiple residences, Mosquito Lake Road, Canyon Lake



Alluvial Fan	Size	Developments/Structures at Risk
Fan		Road, and three private roads; note that Kenney Creek fan is largely in the North Fork Nooksack River but there is overflow from Canyon Lake to Kenney during floods
Kenney Creek Fan	188 acres	
Filbert Creek Fan	49 acres	
Porter Creek	95 acres	Residences, Mosquito Lake Road, the bridge at Porter Creek, and a private road
South Fork Nooksack River		
Falls/Todd Creek	Data not available	Multiple residences, Hillside Drive, and agricultural lands
Terhorst Creek	94 acres	Residences, Hillside Drive, a county road, outbuildings
Sygitowicz Creek Fan	163 acres	Residences, a county bridge, and a county road
Radonski Creek Fan	Data not available	Two farms, residences, and Hillside Drive
Hardscrabble Creek Fan	45 acres	Residences, several barns and outbuildings, a County road, and a County bridge (New bridge placed fall 2009 and repaired in winter 2009/2010)
McCarty Creek Fan	162 acres	Turkington Road county bridge and agricultural land
Jones Creek Fan	376 acres	Town of Acme, Turkington Road, State Highway 9, elementary school, fire hall, and church
Middle Nooksack River (Flood Reach 4)		
Smith Creek Fan	Data not available	Residences, True Log Homes, Smith Creek Hydro projects, Mount Baker Vineyards, Mount Baker Highway, and Burlington Northern Railway
McCauley Creek Fan	Data not available	Residences, farm buildings, and Mount Baker Highway
Sumas River		
Swift Creek	Data not available	Residences, Great Western Lumber & Mill, and Mount Baker Mushroom Farm

Note: Information obtained from "Alluvial Fan Hazard Areas", Whatcom County PDS

2. Coal Mines

Infrastructure constructed over abandoned shallow underground coal mines is highly susceptible to collapse. Risk of collapse decreases with depth of mine workings below ground surface, particularly during seismic events. These mines stretch from State Street to Sehome Hill and from Connecticut Street northwest to McLeod Road. Ground failure and subsidence in downtown Bellingham could result in damage to infrastructure and possibly injury and death.

3. Landslides

As population density increases and houses and roads are built below or on steeper slopes and mountainsides to obtain marketable views, landslide hazards become an increasingly serious



threat to life and property. Residential development along slopes such as Chuckanut Mountain, Stewart Mountain, Lookout Mountain, and other hillsides throughout the County are subject to slides. These slides take lives, destroy homes and businesses, undermine bridges, derail railroad cars, cover fish habitat and oyster beds, interrupt transportation infrastructure, and damage utilities. Forest fires, clear-cutting of trees, land clearing for housing developments, rearrangement of drainage patterns by roadside ditches and cross drains, lack of proper cross drain spacing, sizing, construction, maintenance, and non-road related stormwater runoff can all contribute to or trigger landslides.

Due to the many factors that contribute to landslide potential widespread identification of all hazard areas is not possible. However, slope stability assessment methodologies are well established and can accurately assess landslide potential for an individual building site or development. This type of assessment should be used to inform land-use decisions, direct project siting, and establish criteria for structural designs to mitigate landslide risk, all of which is mandated by the Whatcom County Critical Areas Ordinance.

Examples of possible landslide areas and possible damages in Whatcom County include the following:

- Chuckanut Mountain and Chuckanut Drive; residential areas on steep slopes such as Sudden Valley; and along the foot of Stewart, Sumas, and Red Mountains and the Van Zandt Dike; near Lake Samish and Cain and Reed Lakes; eastern Mount Baker Highway; and parts of Highway 9
- Unstable bluffs on Lummi Island, Lummi Peninsula, Point Roberts, Cherry Point, Point Whitehorn, and Birch Bay
- Western Washington University below Sehome Hill; The Sehome Hill Arboretum has had slides in the past – the growth of some tree trunks shows evidence of slow movement downhill above the university
- Slopes overlooking Hale Passage, Bellingham Bay, Boundary Bay, and Strait of Georgia
- Eldridge Avenue and Edgemoor homes overlooking Bellingham Bay
- Mount Baker – Landslides may be caused by melting snow, or steam resulting in a lahar (mudflow off a volcano); a lahar could possibly cause floods of the Nooksack River and massive mudslides into Baker Lake which could over-top, or break, Baker Lake Dam (see previous discussion in the “Earthquake” Section); glacier retreat removes support for unconsolidated sediment which can landslide and route as debris flows, similar to, but smaller than, lahars.



- Sumas Mountain and the Swift Creek landslide the deposits, which imperil County roads and private property and which increase flooding and distribution of asbestos-containing sediment

E. MITIGATION STRATEGIES

For alluvial fans and landslides, mitigation measures recommended by various studies are listed below. In general, the following steps should be implemented to reduce risk of the four geologic hazards—alluvial fans, coal mines, landslides, and seismic hazards—affecting Whatcom County:

1. Limit, and if possible, eliminate new development in high-risk areas. If possible, direct new development to portions of the subject parcel beyond the area of potential affect.
2. If new development is to be permitted, a qualified professional should assess the risks and recommend how to mitigate new construction to address the specific geological hazard.
3. Educate existing property owners at risk to help minimize the risk of the local hazards.
4. If cost effective, buyout high risk properties.
5. As a last-case resort, consider engineering solutions to manage the specific geologic hazard, if proven effective.

1. Alluvial Fans

To help reduce the impact of debris events, the *Alluvial Fan Hazard Areas* report mentioned above, outlines preliminary mitigation actions to be considered when developing on or near an active fan. Mitigation alternatives are also identified in both the *Canyon Creek and Jones Creek Alluvial Fan Risk Assessments*. Those recommendations are based on detailed analysis specific to those fans, but offer risk mitigation alternatives that can be applicable to most alluvial fans. Specific mitigations should be developed by a qualified professional and presented in a manner that is structured, reproducible, and defensible and should utilize all available alluvial fan mapping when considering a specific site.

1. Limit, and if possible, eliminate new development in high-risk areas.
2. If new development is to be permitted, a qualified professional should assess the risks and recommend how to mitigate new construction to address the specific geological hazard.



3. Educate existing property owners at risk to help minimize the risk of the local hazards.
4. If cost effective, buyout high risk properties.
5. As a last resort, consider engineering solutions to manage the specific geologic hazard, if proven effective.
6. Avoid road crossings that obstruct debris passages in debris flow source areas, in the stream network that routes material to an alluvial fan, or on an alluvial fan itself.
7. Locate and orient roads carefully- Road beds can act as levees or potential avulsion channels depending on their locations and orientation, especially those roads oriented parallel to flow.

The report also details primary and secondary measures to consider in alluvial fan mitigation strategies:

Primary Measures

Mapping and avoidance – The impact zone of debris flows and sediment laden floods must first be delineated by careful hazard mapping. In general, areas of historic or prehistoric flows, scoured channels and headwaters, and initiation points of landslides or debris flows constitute debris flow hazard zones. Appropriate zoning regulations or building restrictions can limit development in these areas. Low intensity development land use, such as agriculture or park lands, may be appropriate.

Precipitation thresholds – Precipitation thresholds are often suggested as a method to predict debris flow occurrence. Antecedent rainfall and snow melt must be factored in to increase the accuracy of event prediction. Church and Miles (1987) state that simple precipitation thresholds cannot be used to predict debris flow events. However, by analyzing approaching storm events and tying this to the characteristics (geology, soil type and thickness, vegetative cover, hydrologic maturity, slope and landform) for areas of known debris flow activity, warnings for potential debris flows may be issued. This would assist those monitoring hazardous areas during storm events. The Washington Geological Survey has a coarse scale shallow landslide warning tool that incorporates a precipitation threshold model in use and available through their website at: <https://www.dnr.wa.gov/slhfm>. Ideally this model would be further refined as more detailed input data are made available specific to Whatcom County. The USGS maintains a monitoring network in the Seattle area to evaluate landslide potential at: https://www.usgs.gov/natural-hazards/landslide-hazards/science/seattle-area-washington?qt-science_center_objects=0#qt-science_center_objects. This information can be used as a general guide to potential Whatcom County conditions.



Warning systems – Warning systems should include advance warning measures, warnings of an event in progress or of an event that has just passed. Existing warning systems that have proven valuable are those used on highways and railways to warn of coming debris flow such as a trip wire and transmitter located in a debris flow path upstream of the infrastructure. The problem with these systems is false alarms could be frequent because these systems are easily damaged. Whatcom County collaborates with USGS in using a landslide dam warning system on Jones Creek which uses rapid drops in stream stage at Turkington Road to issue a warning to the fire district. Once warned, district personnel are dispatched to check on the status of an existing landslide dam upstream or for other channel obstructions.

Secondary Measures

Forest practices – Poor forest practices can initiate landslides by destabilizing soils on slopes from the loss of root strength after the trees are cut, by road placement that destabilize a slope, and by increasing the average pore water pressure in soils through changes in slope hydrology caused by roads, cross drains, landings, and skid trails. State of Washington Forest Practice Rules have been dramatically revised since the mid-1980's to address these issues and reduce the potential for forest practices to increase landslide potential on forest lands. In addition, road maintenance and abandonment plans are required for forest landowners and guide how roads are maintained while active and how they are abandoned once they are no longer needed.

Slope modifications – Slopes in potential sediment source areas can be stabilized to reduce their failure potential. Slope height can be limited, the slope angle decreased, drainage installed, and fill compacted. Drainage systems for the slopes must have culverts sized large enough to carry debris and water.

Do not develop on areas subject to sediment laden flooding, debris flow routing, or run out such as on an alluvial fan.

Specific mitigation measures were identified for the three fans studied in detail, as described below.

Mitigation Strategy for Canyon Creek

The following measures were recommended to reduce the risk associated with the Canyon Creek fan:

1. Advise property owners and residents on the fan of the hazard and the study results
2. Distribute the alluvial fan risk assessment study to other agencies involved in natural resources management



3. Proceed with acquisition of highest risk properties on the fan
4. Implement site-specific land use regulations using the detailed risk mapping included in the report
5. Consider removing the lower two-thirds of the levee constructed in 1994 (which would route any overflow behind the levee away from the creek) and using the riprap to reinforce the right bank adjacent to Canyon View Drive
6. Consider other mitigation options identified in the report with referral to appropriate agencies; these options include regulation of future logging, event warning system, regional advance warning system, and monitoring of the landslides in the upper basin and the Canyon Creek channel

Since completion of the study, the following progress has been made in implementing some of these recommendations:

1. Several community meetings have been held to increase public awareness of the hazard and to involve the community in the development of mitigation measures. In addition, the report was provided to the Glacier Springs Community Association, who has it available for download on their website.
2. The report was distributed to the other agencies involved in resource management. Extensive coordination has occurred with WSDOT as it relates to protection of Mt. Baker Highway.
3. Three residences and 26 undeveloped lots along the active fan margin, and The Logs Resort were acquired through an integrated hazard mitigation and salmon recovery project by the FCZD and the Whatcom Land Trust.
4. The detailed mapping in the report is now being used for administering the County's critical areas ordinance related to new development on the fan.
5. A portion of the lower levee was removed and the ground surface in the fan was re-graded in 2009 to direct any overflow that might get behind the levee back towards Canyon Creek rather than towards Mount Baker Highway. The riprap removed from the levee face was stockpiled in an area near the highway to enable future use.
6. 1850' of the 2000' of levee remaining after the 2009 project was removed in 2013 and an 1800' armored setback structure was constructed 200' to the west along Canyon View Drive and paralleling the historic floodplain area to the south. The historic floodplain was recreated and a total of 23 engineered log jams were installed in 2013 and 2014 to reduce bank erosion and to provide instream and riparian habitat



restoration. Since 2014 vegetation planted post-construction has become increasingly well-established along the right bank and flood plain and will provide increased protection to the downstream residences in the future.

7. Coordination with the National Weather Service and WDNR continues to occur regarding development of a regional hydroclimatic threshold for an advance warning system for the Puget Sound Region.

Mitigation Strategy for Jones Creek

The following measures were recommended to reduce the risk associated with the Jones Creek fan:

1. Advise property owners and residents on the fan of the hazard and the study results
2. Distribute the debris flow study to other agencies involved in natural resources management
3. Consider acquisition of all properties within Zone 1, the highest risk area, and possibly within Zone 2, the next at-risk area
4. Consider constructing a deflection berm extending from the fan apex to below Turkington Road
5. In conjunction with the deflection berm, consider a channel realignment that diverts the creek to the north
6. Consider implementation of other measures identified in the report with referral to appropriate agencies; these measures include:
 - Improved regulation of land use and logging activities
 - Landslide monitoring
 - Creek channel inspections
 - Removal of the berm along the creek downstream of Turkington Road
 - Abandonment of the Turkington Road bridge and upgrade of the Hudson Road and railway; an alternative to road relocation is to increase the capacity of the Turkington Road bridge at its current location

Since completion of the study, the following progress has been made in implementing some of these recommendations:

1. Significant public outreach has occurred in the Acme community. The small debris flow



in 2004 prompted the County to host several community meetings to inform residents on the fan of the hazard and they types of conditions that could trigger an event. Additional meetings have been hosted by the Acme/Van Zandt Fire District (#16) since fall 2008.

2. The report was distributed to natural resource agencies as well as to the Acme Fire District. The Fire District initiated development of a detailed emergency response plan to address debris flows on Jones Creek late in 2008. They were able to implement portions of the draft plan in January 2009. Since then they have conducted additional planning and drills to improve their response.
3. Two residential properties in hazard Zone 1 near Turkington Road have been acquired by the FCZD.
4. Preliminary design work to evaluate alternative alignments and a planning-level cost estimate for a deflection berm has been completed.
5. Evaluation of alternative access routes for Turkington Road were evaluated .
6. Detailed design of deflection is currently underway
7. Acquisition of additional properties needed to construct a deflection berm is currently underway
8. The detailed mapping in the report is now being used for administering the County's critical areas ordinance related to new development on the fan.
9. The local community members and Fire District representatives have been informally monitoring the landslide and the creek since the January 2009 event.
10. In 2014 Fire District #16 and the Mt. Baker School District have conducted Landslide evacuation/ shelter in place drills.
11. Annual Winter Storm/ Disaster Readiness Town Hall meetings were started in 2014 with County Public Works, Whatcom County Sheriff's Office Division of Emergency Management and Fire District #16.
12. In 2012 four members of Fire District #16, were trained by Whatcom County Sheriff's Office Division of Emergency Management to use the reverse 911 messaging system for the Acme area.

Mitigation Strategy for Swift Creek

In addition to the types of hazards most often associated with alluvial fans, the sediment within Swift Creek contains elevated levels of naturally occurring asbestos and heavy metals. This has



added additional health and safety issues and added to the complexity of dealing with sedimentation problems along Swift Creek. The following measures are completed to reduce the risk associated with the Swift Creek fan:

- a. February 15, 2013 Whatcom County published the Draft Environmental Impact Statement for the Swift Creek Sediment Management Action Plan (SCSMAP).
- b. June 12, 2013 Whatcom County published the Final Environmental Impact Statement for the SCSMAP.
- c. July 23, 2013 the Whatcom County Council adopted the SCSMAP by resolution #2013-026. The following chapters are included in the SCSMAP:
 1. Chapter 1 includes a description of the Swift Creek setting and background, as well as a description of Whatcom County's approach and response to Swift Creek management to date. This chapter also includes goals and objectives that informed development of active (project) and passive (program) strategies recommended in the Plan.
 2. Chapter 2 outlines relevant laws, regulations, rules, plans, and policies that provide the framework for Swift Creek management. The regulatory outline provides general applicability; specifics as to regulatory approach would be developed in conjunction with implementation of recommended strategies. The approach included in the SCSMAP is intended to encourage cooperative and consistent Swift Creek sediment management among agencies and jurisdictions involved in the Swift Creek problem.
 3. Chapter 3 describes the watershed in detail and includes conditions assessments for each identified watershed issue. An overall list of problems that result from watershed conditions is provided. This problem list, which identifies areas of high risk for overbank flooding, avulsion, and sediment accumulation, provides the basis for future direction and management strategies.
 4. Chapter 4 includes active and passive management strategies identified as feasible in development of the SCSMAP. Strategies were developed to target high risk areas and protect public health and welfare, public infrastructure, and the environment. Some identified strategies meet the goals of the plan through direct application of public works projects (active management strategies), while others include development of programs (passive management strategies) to address the major Swift Creek issues.
 5. Chapter 5 provides the final recommendations identified and discussed in the



SCSMAP.

6. Chapter 6 addresses the costs of implementing the strategies identified in Chapter 4. Costs are provided as planning level estimates only. Active strategy planning level cost estimates include the estimated cost for on-site development. Passive strategy estimates are based on the project number of full time equivalents in terms of Whatcom County staff to develop and implement an identified program.
7. Chapter 7 provides a set of guidelines for project-level plan implementation, along with a prioritization protocol. The prioritization protocol developed for this plan will be utilized for all projects developed under the umbrella strategies included in Chapter 4.
- d. December 6, 2019 the Washington State Department of Ecology and Whatcom County (together with the Whatcom County Flood Control District) entered into a Consent Decree. The mutual objective of the Consent Decree is to implement a cooperative program of actions to limit potential future impacts on human health and the environment from naturally occurring asbestos (NOA)-bearing material generated from the Sumas Mountain landslide, both as that material exists today in the Swift Creek/Sumas River floodplain and as it will continue to be generated and transported as sediment from the landslide toward the floodplain in the future.
- e. Since 2019 Whatcom County has completed several elements of the plan, including:
 - i. Purchasing properties for the construction of the debris flow levee, sediment traps, sediment basins, first repository and wetland mitigation site.
 - ii. Completed designs for the debris flow levee, sediment traps, and repository (including the wetland mitigation site).
 - iii. Completed the design and construction of the Oat Coles setback levee and access road improvements and setback levee mitigation in the form of wetland mitigation.
 - iv. Continued monitoring, dredging, and armoring the lower reach section of the stream to prevent the sediment material from entering and destroying adjacent valuable habitat.
 - v. Completed scoping the Supplemental EIS for the repository site.
- f. Future projects include:
 - i. Completion of the Draft and Final Supplemental EIS for the repository site.



- ii. Development of the repository site.
- iii. Construction of the debris flow levee.
- iv. Construction of the sediment traps.
- v. Williams Pipeline crossing control structures.
- vi. Development and construction of the sediment basins.
- vii. Development and construction of the wetland mitigation site.
- viii. Continued monitoring, dredging, and armoring the lower reach.

Mitigation Strategy for Glacier-Gallup Creeks

The SWIF process included recommendations to address the deficiencies on the Glacier Levee on the left bank of Glacier Creek. The SWIF plan recommends working in collaboration with WSDOT to implement their preferred alternative to address the chronic environmental deficiencies associated with sedimentation at their bridges over SR 542. WSDOT's preferred alternative includes constructing a bridge with openings that span across both creeks and the channel migration zone in between them. They acquired the Glacier Creek Motel that was between the creeks downstream of the highway and constructed a new Gallup Creek bridge in 2010.

While WSDOT still has plans to construct the additional spans east of Gallup Creek, the timing of funding for project implementation is uncertain. Once the bridge project is complete, the Glacier Creek Levee will be in the middle of the channel migration zone and no longer needed to protect the roadway. The FCZD recently initiated a project to better assess the hazards associated with the creeks and evaluate options to relocate the Glacier Creek Levee to enable restoration of alluvial fan processes while mitigating hazards in the town of Glacier.

2. Coal Mines

Coal mines in Whatcom County are not considered a major concern.

3. Landslides

Washington is one of seven states listed by FEMA as being especially vulnerable to severe land stability problems. An increasing population and demand for "view" property, with the concomitant removal of trees to attain the view, increases the risk of landslides in residential areas. Buildings on steep slopes and bluffs are at risk in seasons of heavy rains or prolonged wet spells.



Landslide, mudflow and debris flow problems are often complicated by land management decisions. By studying the effects of landslides in slide-prone regions, plans for the future can be made and the public may be educated to prevent development in vulnerable areas. Applying established ordinances where geological hazards have been identified will prevent some landslide losses. However, Whatcom County already has many areas above or below unstable slopes with established houses and businesses. Prevention of landslide damage is best achieved through careful identification and avoidance of unstable landforms and landslide run-out zones. For areas where development may occur near unstable slopes an appropriate mitigation plan prepared by a qualified professional and that is tailored to the site conditions and the type or types of mass wasting that may occur is necessary to manage landslide risks.

The primary mitigation strategy to employ in areas at danger of landslides or landslide run-out is to limit or eliminate development in any high risk areas. Employing public buyouts of especially high risk areas should be considered. If new development is to occur, the Washington State Department of Ecology has outlined the following recommendations and information to improve public preparedness. This information was developed for coastal bluffs, but provides good guidance for many situations where the stability of a slope may be an issue.

1. Do research – Learn about the geology and the history of your property. Talk to local officials, your neighbors, or visit the local library. Review geologic or slope stability maps of your area.
2. Get advice – Talk with a licensed geologist or geological engineer before buying a potentially unstable site or building your home. Although waterfront lots can be attractive sites, they often have severe natural limitations. They may also be subject to strict environmental and safety regulations.
3. Leave a safe setback – Build a prudent distance from the top or bottom of steep slopes. Avoid sites that are too small to allow a safe setback from the slope. Allow adequate room for drainfields and driveways. Local setback requirements should be viewed as absolute minimums. Consider how far landslide material may run out once it reaches the bottom of the hill or the alluvial fan. Resist the urge to trade safety for a view.
4. Keep plants – Maintain existing mature vegetation, above, on, and below steep slopes. Trees, especially native conifers, shrubs, and groundcovers help anchor soils and absorb excess water. Get expert advice identifying and removing weeds.
5. Maintain drainage – Collect runoff from roofs and improved areas and convey water away from the steep slope or to the beach in a carefully designed pipe system. Regularly inspect and maintain drainage systems.





SEVERE STORMS

A. DEFINITIONS

Blizzard A blizzard means that the following conditions are expected to prevail for a period of 3 hours or longer:

- Sustained wind or frequent gusts to 35 miles an hour or greater; and
- Considerable falling and/or blowing snow (i.e., reducing visibility frequently to less than $\frac{1}{4}$ mile)

Freezing Rain Rain that falls as a liquid but freezes into glaze upon contact with the ground.

Funnel Cloud A condensation funnel extending from the base of a towering cumulus or cumulonimbus, associated with a rotating column of air that is not in contact with the ground (and hence different from a tornado). A condensation funnel is a tornado, not a funnel cloud, if either a) it is in contact with the ground or b) a debris cloud of dust whirl is visible beneath it.

Gale An extratropical low or an area of sustained surface winds of 34 (39 mph) to 47 knots (54 mph).

High Wind Sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration.

Severe Local Storm A convective storm that usually covers a relatively small geographic area, or moves in a narrow path, and is sufficiently intense to threaten life and/or property. Examples include severe thunderstorms with large hail, damaging wind, or tornadoes. Although cloud-to-ground lightning is not a criteria for severe local storms, it is acknowledged to be highly dangerous and a leading cause of deaths, injuries, and damage from thunderstorms. A thunderstorm need not be severe to generate frequent cloud-to-ground lightning. Additionally, excessive localized convective rains are not classified as severe storms but often are the product of severe local storms. Such rainfall may result in related phenomena (flash floods) that threaten life and property.

Storm Surge An abnormal rise in sea level accompanying a hurricane or other intense storm, whose height is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone. Storm surge is usually estimated by subtracting the normal or



astronomic tide from the observed storm tide.

Flooding Any high flow, overflow, or inundation by water which causes or threatens damage

Thunderstorm A local storm produced by a cumulonimbus cloud and accompanied by lightning and thunder.

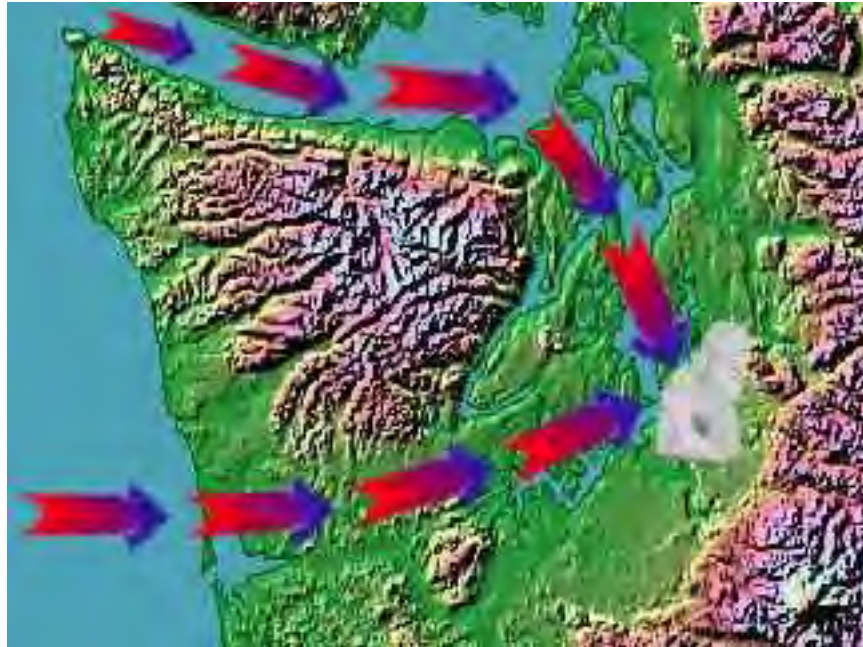
Tornado A violently rotating column of air, usually pendant to a cumulonimbus, with circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena.

Waterspout In general, a tornado occurring over water. Specifically, it normally refers to a small, relatively weak rotating column of air over water beneath a Cumulonimbus or towering cumulus cloud. Waterspouts are most common over tropical or subtropical waters.

NOTE: All definitions taken from National Weather Service Glossary accessed by internet @ <https://w1.weather.gov/glossary/>

B. BACKGROUND INFORMATION

Severe storm weather comes in many forms, the most common for Whatcom County being heavy rain and wind during the winter months. Several wind storms have occurred in late summer with trees still retaining their full complement of leaves resulting in toppled trees and broken branches interrupting power to tens of thousands. Whatcom County experiences blizzards periodically, though not as commonly as unfrozen or partially frozen precipitation. Two types of winds primarily affect Western Washington: westerlies and easterlies. Westerly wind storms originate from the Pacific Ocean and are caused by pressure differences between deep oceanic storms and adjacent upland areas. This wind pattern is typical for fall and winter.



Westerly winds in Washington figure courtesy of <http://www.islandnet.com>

Easterly winds are caused by high pressure systems in eastern Washington, causing strong winds to form west of the Cascade mountain range that occur in late summer and early fall.



Easterly winds in Washington figure courtesy of <http://www.pep-c.org>



C. RECENT HISTORY IN WHATCOM COUNTY

Recent severe storm events in Whatcom County include the following:

- February 2020** Significant rain led to Nooksack River overtopping bank in numerous locations. Beginning with overtopping the bank in Everson, water flowed north through Everson and Nooksack continuing north along the Sumas River and Johnson Creek damaging numerous homes and businesses in Sumas. Farther downstream, Marietta residents were evacuated due to rising water.
- December 2018** Strong wind storm brought significant waves to Birch Bay and Point Robert resulting in downed trees and powerlines and significant erosion to Birch Bay Drive. Additionally, several businesses were impacted by high water level and surge.
- December 2017** Ice storm knocked out power in Sumas and surrounding area for days after accumulated ice snapped numerous power poles blocking roads and preventing power crews from completing rapid repairs.
- December 2008** Heavy rainfall over most of Western Washington, causing record levels and flooding for five major rivers including the Nooksack.
- December 2000** The Sandy Point storm that caused severe damage to Sandy Point beachfront homes (\$750,000) was a combination of gale force northwest winds, extreme high tides, and low pressure.
- Winter 1998-1999** Record snowfall, up to 1,140 inches of snow fell on Mount Baker Ski Area, the most ever recorded in the United States.
- Winter 1996-1997** Up to 3 feet of snow dropped by a holiday storm. Wind, snow, flooding, and freezing resulted in landslides, avalanches, road closures, and power outages throughout Whatcom County.
- Winter 1990-1991** Six major storms (two floods, two Arctic windstorms, and two heavy snowstorms, along with bouts of freezing rain and silver thaw) across Whatcom County resulted in power losses to nearly 100,000 residents. The Lummi Island ferry service was cut off. Damages to Whatcom County were up to \$30 million, not including private property damage and economic losses.
- November 1989** Severe storm resulting in a wind-chill factor estimated at between 50 and 70 degrees below zero with wind gusts up to 104 miles per hour.



Up to 16,000 residents lost power, resulting in school closure, damaged crops, and frozen milk in pumping equipment at local dairies.

January 1969 Severe storm froze stretches of the Nooksack River. Snow blocked portions of the Guide Meridian with a snowdrift on Pangborn Road measuring up to 25 feet high and 300 feet wide.

October 12, 1962 The famous Columbus Day storm brought winds up to 98 miles per hour.

March 1951 Severe storm dumped 23 inches of snow over 4 days. Temperatures plunged down to 10 degrees.

January 1950 Repeated snow storms hit Whatcom County for more than 1 month beginning on New Year's Day. Temperatures hit zero with winds of up to 75 miles per hour. Winds destroyed five planes and damaged 29 others at Bellingham International Airport.

February 1916 Seventeen inches of snow fell in Bellingham for the first week, followed by 42 inches of rain over a 2-week stretch. Snowdrifts up to 30 feet in height were found throughout the County.

February 1893 A blizzard consisting of snow and hail hit Whatcom County with up to 80 mile per hour winds and temperatures hitting 13 degrees below zero.

D. VULNERABILITY ASSESSMENT

Whatcom County is highly vulnerable to severe storms. According to the Washington State Emergency Management Division, Whatcom County lies in an area of Washington vulnerable to high winds.² The Washington State Hazard Mitigation Plan identifies Western Washington to be most susceptible to inclement weather during the following time periods³:

- Primary flood season – November through February

² Accessed on July 9, 2014 on the Emergency Management Department website at:
<http://www.emd.wa.gov/plans/documents/SevereStormNov2007Tab5.7.pdf>

³ Washington Military Department Emergency Management Division, 2014. *Washington State Hazard Mitigation Plan*. Approved by the Federal Emergency Management Agency Region 10 Office 2014.



- Windstorm season – October through March
- Snow season – November through mid-March

Severe storms can result in costly hazards, due primarily to their frequent occurrence and ability to disrupt lifelines such as arteries of transportation and above-ground electric lines. Because the worst storms typically occur during winter, loss of power/heating can be dangerous, especially for homes with children or elderly residents. Severe weather also poses additional risks resulting from tree fall to both structures and humans.

Whatcom County's location and geography leave it susceptible to heavy storm activity. Coastal systems move in relatively easily and release most of their moisture, being blocked by the Cascade Mountain Range. Multiple marinas along the shoreline of Whatcom County are vulnerable to storm action and represent a high loss potential for the area. The County's limited routes of transportation mean that inclement or severe weather can slow both intrastate and interstate commerce. Additionally, Fraser outflows from north of the border bring very cold temperatures and strong northeast winds. This cold air frequently clashes with the warmer moist flowing north leading to freezing rain, significant snowfall and in some cases, blizzard conditions.

Additionally, Fraser outflows from north of the border bring very cold temperatures and strong northeast winds. This cold air frequently clashes with the warmer moist flowing north leading to freezing rain, significant snowfall and in some cases, blizzard conditions.

E. MITIGATION STRATEGIES

The National Weather Service continues to refine weather forecasting. In addition, when significant weather systems are forecast for Washington and Whatcom County, weather forecasters conduct daily virtual briefings to ensure the most current conditions are promulgated to response agencies. The Whatcom County Sheriff's Office Division of Emergency Management website contains real-time data for severe storm events and other hazards and can be accessed at <https://www.whatcomcounty.us/201/Emergency-Management> . The website also contains educational tools to inform residents of potential hazards, such as severe storms, and how to prepare for them.

Whatcom County has been awarded the "Storm Ready Certification" by the by the National Oceanic and Atmospheric Administration National Weather Service for its, monitoring, communication, and warning efforts.



TSUNAMIS

A. DEFINITIONS

Tsunami A series of traveling waves of extremely long length generated by earthquakes occurring below or near the ocean floor. Underwater volcanic eruptions and landslides can also generate tsunamis.

B. BACKGROUND INFORMATION

Sudden movement of the Earth's crust during an earthquake may displace water and generate an energy wave called a tsunami. In the deep ocean, a tsunami's length from wave crest to wave crest may be 100 miles or more but with a visible wave height of only a few feet or less. They may not be felt aboard ships nor can they be seen from the air in the open ocean. Large Pacific Ocean tsunamis typically have wave crest-to-crest distances of 60 miles and can travel about 600 miles per hour in the open ocean. A tsunami can traverse the entire 12,000 to 14,000 miles of the Pacific Ocean in 10 to 25 hours, striking any land in its way with great force. Tsunamis can cause great destruction and loss of life within minutes of origination. For example, the first tsunami waves from the 2004 Indian Ocean Earthquake reached Sumatra's shores within 15 minutes of the earthquake and those of Somalia seven hours later.

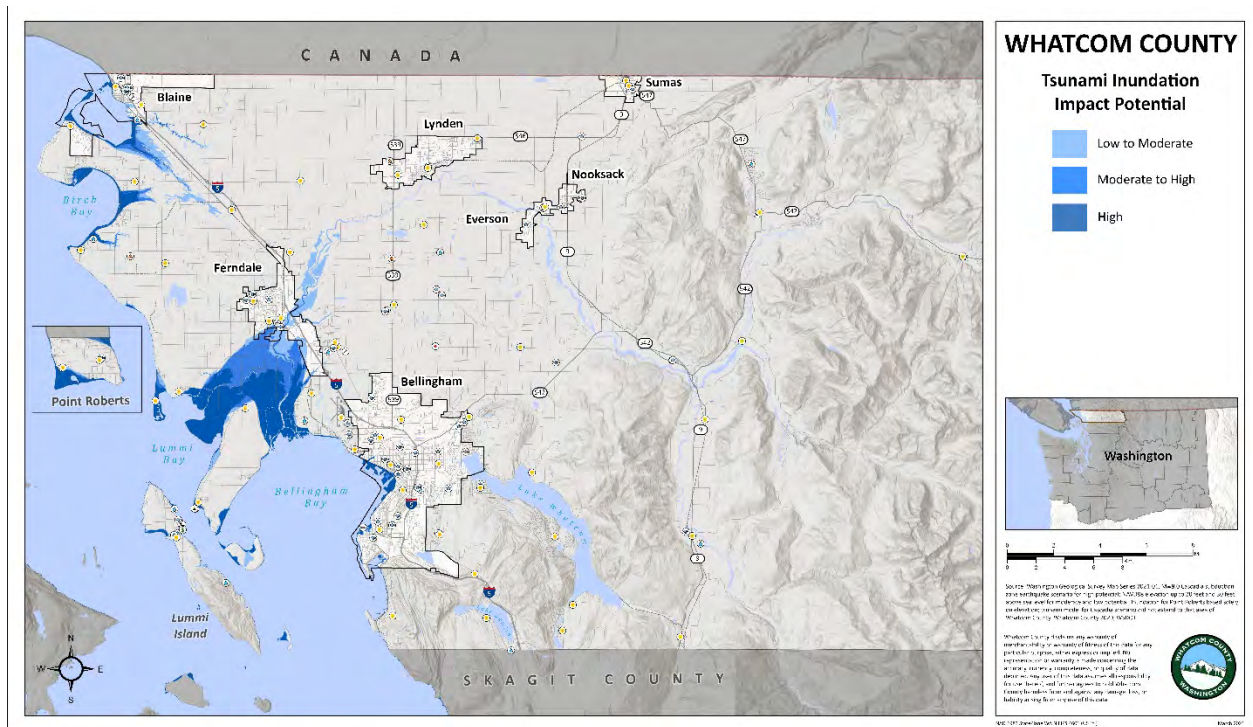
On the Pacific Coast, from southern British Columbia to northern California, people and property are at varied risks both from distantly and locally generated tsunamis. Recent studies indicate about a dozen very large earthquakes (with magnitudes of 8 or more) have occurred in the CSZ west of Washington. Computer models indicate that tsunami waves generated by these local events might range from 5 to 55 feet in height and could affect the entire coastal region.

In April 2021, the Washington State Department of Natural Resources (DNR) completed new tsunami inundation maps for the state, including a new tsunami inundation map for North Puget Sound and parts of the Strait of Georgia. The new tsunami inundation map for the North Puget Sound shows postulated inundation areas and modeled inundation depth from a Mw 9.0 Cascadia subduction zone megathrust earthquake scenario. Inundation depths vary, based not only on the tsunami wave height but how these waves may "stack up" or "funnel" into bays, rivers, and stream estuaries. The bay on the north side of Portage Island is expected to experience about 14.5 feet of inundation, with higher levels of inundation at the mouth of the Nooksack River. If this tsunami inundation occurs during high tide, it could create inundation of over 20 feet above mean sea level (NAVD88) in some locations of the Whatcom county.



Notably, the DNR tsunami inundation map is for a single scenario event and does not fully model all coastline inundation. DNR only infers, but does not fully model, inundation along much of Whatcom County's coastline and does not model any inundation for the Point Roberts area. Furthermore, other scenarios may pose a tsunami or seiche risk to Whatcom county. These include earthquake-triggered collapses of the Fraser River mouth or tidal flats at the mouth of the Nooksack River. Earthquakes or other events could cause large-scale landslides along the marine headlands of Lummi Island, displacing water in Bellingham Bay and potentially causing a local seiche with little warning time before it inundates shorelines in Bellingham Bay. Smaller earthquakes may also occur on crustal faults in Whatcom County and these faults may extend out into coastal waters. Little or no research has been completed on these scenarios and whether they may produce tsunami inundation larger than the Cascadia subduction zone scenario.

Given the incomplete nature of tsunami modeling in Whatcom County, this Natural Hazards Plan takes a conservative approach, as shown in the Tsunami Inundation Hazard map below. In addition to planning for the Cascadia subduction scenario, shown as high tsunami inundation impact potential in the map, the map also shows areas outside of this scenario inundation but under 30 feet above mean sea level (NAVD88). Areas up to 20 feet above mean sea level (NAVD88) are shown in medium blue and labeled as moderate to high tsunami inundation impact potential. Areas up to 30 feet above sea level are shown in light blue and labeled as low to moderate tsunami inundation impact potential. (Areas above 40 feet of elevation should be considered as completely above tsunami inundation impact.) These areas outside of the DNR model, but labeled as having some potential for tsunami inundation impact are meant to help address the lack of complete tsunami modeling in the county. They are also meant to help address secondary impacts, such as debris pushed ahead of tsunami inundation, ground subsidence, or even debris fires that can ignite in and near tsunami inundation areas. Future changes to coastal morphology and continued sea level rise may also lead to tsunami inundation impacts in areas outside of the DNR modeling of the Cascadia subduction zone earthquake inundation in the future.



Map of Whatcom County tsunami inundation impact potential. The high impact potential zone is based upon Washington Geological Survey Map Series 2021-01, Mw9.0 Cascadia subduction zone earthquake scenario occurring at mean high tide. The moderate to high and the low to moderate impact potential areas are based upon elevation of up to 20 feet and 30 feet, respectively, above mean sea level (NAVD88). Inundation for Point Roberts is based solely on elevation; tsunami model for the Cascadia subduction zone scenario did not extend to Point Roberts.

C. RECENT HISTORY IN WHATCOM COUNTY

Recent research on subduction zone earthquakes off the Washington, Oregon, and northern California coastlines and resulting tsunamis (Atwater 1992; Atwater et al. 1995) has led to concern that locally generated tsunamis will leave little time for response. Numerous workers have found geologic evidence of tsunami deposits attributed to the CSZ in at least 59 localities from northern California to southern Vancouver Island (Peters et al. 2003). While most of these are on the outer coast, inferred tsunami deposits have been identified as far east as Discovery Bay, just west of Port Townsend (Williams et al. 2002) on the west shore of Whidbey Island (Williams and Hutchison 2000). Heaton and Snively (1985) report Makah stories may reflect a tsunami washing through Waatch Prairie near Cape Flattery, Washington, and Ludwin (2002) has found additional stories from native peoples up and down the coast that appear to



corroborate this and also include apparent references to associated strong ground shaking. Additionally, correlation of the timing of the last CSZ earthquake by high-resolution dendrochronology (Jacoby et al. 1997; Yamaguchi et al. 1997) to Japanese historical records of a distant-sourced tsunami (Satake et al. 1996) demonstrate that it almost certainly came from the CSZ. This tsunami may have lasted as much as 20 hours in Japan and caused a shipwreck about 100 km north Tokyo in A.D. 1700 (Atwater and Satake 2003). The frequency of occurrence of CSZ earthquakes ranges from a few centuries to a millennium, averaging about 600 years (Atwater and Hemphill-Haley 1997). It is believed the last earthquake on the CSZ was about magnitude (M) 9 (Satake et al. 1996, 2003). It is not known, however, if that is a characteristic magnitude for this fault. Evidence gleaned from syntheses of global subduction zone attributes and local tsunami deposits suggests that great earthquakes have occurred in the Pacific Northwest perhaps as recently as 300 years ago.

Tsunamis may also be generated by movement on faults located within Puget Sound. This is discussed in further detail under the Vulnerability Assessment portion of this section.

Tsunamis are a threat to life and property and to anyone living near the ocean. In 1995, in response to tsunami threat, Congress directed NOAA to develop a plan to protect the West Coast from locally generated tsunamis. A panel of representatives from NOAA, FEMA, the USGS, and the five Pacific coast states wrote the plan and submitted it to Congress, which created the National Tsunami Hazard Mitigation Program (NTHMP) in October 1996. The NTHMP was designed to reduce the impact of tsunamis through warning guidance, hazard assessment, and mitigation. A key component of the hazard assessment for tsunamis is delineation of areas subject to tsunami inundation. Since local tsunami waves may reach nearby coastal communities within minutes of the earthquake, there will be little or no time to issue formal warnings; evacuation areas and routes will need to be planned well in advance.

Spatial data used to assess tsunami hazards in Whatcom County was developed by the Center for the Tsunami Inundation Mapping Efforts (TIME) at NOAA's Pacific Marine Environmental Laboratory in Seattle. The data and maps were produced using computer models of earthquake-generated tsunamis from nearby seismic sources, and analyzed to determine the risks of a CSZ earthquake.

TIME's tsunami inundation maps are based on a computer model of waves generated by a scenario earthquake. The earthquake scenario adopted for that study was developed by Priest et al. (1997) and designated Scenario 1A (also see Myers et al. 1999). It was one of a number of scenarios they compared to paleoseismic data and found to be the best fit for the A.D. 1700 event. This scenario has been the basis for tsunami inundation modeling for the other maps produced by the NTHMP in both Oregon and Washington based on a CSZ event. The land



surface along the coast is modeled to subside during ground shaking by about 1.0 to 2.0 meters (Fig. 1), which is consistent with some paleoseismologic investigations and also matches thermal constraints of Hyndman and Wang (1993). This earthquake is a magnitude 9.1 event, with a rupture length of 1,050 km and a rupture width of 70 km. Satake et al. (2003) have recently calculated a very similar magnitude and rupture dimension from an inversion of tsunami wave data from the 1700 event. The model used is the finite difference model of Titov and Synolakis (1998), also known as the Method of Splitting Tsunami (MOST) model (Titov and González 1997). It uses a grid of topographic and bathymetric elevations and calculates a wave elevation and velocity at each grid point at specified time intervals to simulate the generation, propagation, and inundation of tsunamis down the Strait of Juan de Fuca and into the Bellingham Bay area.

Based on new seismic research demonstrating the potential for increased seafloor displacement during a subduction zone earthquake with a recurrence interval of ~2500 years, the Washington Geological Survey published updated tsunami hazard modeling in June 2018 (Eungard, 2018). The model demonstrates the potential for increased inundation depth and current velocities to impact the shoreline and other low-lying areas of Whatcom County. Increased inundation depths of 5 to 18 feet above mean high water are possible, as are current velocities exceeding 20 knots. Due to the low recurrence interval of the defined seismic event the results of the model are intended to inform the design of critical infrastructure and are not currently being used in the regulation of residential or commercial development.

D. VULNERABILITY ASSESSMENT

TIME Results – The computed tsunami inundation model emphasized three depth ranges: 0 to 0.5 m, 0.5 to 2 m, and greater than 2 m. These depth ranges were chosen because they are approximately knee-high or less, knee-high to head-high, and more than head-high and so approximately represent the degree of hazard for life safety. The greatest amount of tsunami flooding is expected to occur in the floodplain of the Lummi (Red) and Nooksack Rivers up to their confluence near Ferndale and then be confined to the relatively narrow floodplain of the Nooksack. Sandy Point Shores is expected to be flooded to a depth of a few feet. Elsewhere, tsunami flooding is expected only in the immediate vicinity of the shoreline where evacuation to higher ground would be an easy matter if sufficient warning is given.

The inundation data also emphasized current velocities:

1. Less than 1.5 m/s (approximately 3 mph), which is the current speed at which it would be difficult to stand
2. Between 1.5 and 5 m/s



- Greater than 5 m/s which is a modest running pace; within zones with this designation, computed velocities locally exceed 20 m/s (approximately 40 mph) in confined channels

Tide gauge records at five locations in the bay show fluctuations of water surface elevation and also the time history of the waves. The initial water disturbance is a trough of about 1 meter at 2 hours after the earthquake followed by a crest at between 2.5 and 3 hours after the earthquake. At around 4 hours after the earthquake, a deeper trough occurs and reaches about 3 meters near the Port of Bellingham. A trough this large, if it occurred at low tide, could cause a significant grounding hazard for ships in the harbor. This is visually displayed in Figure 3, which shows an animation of the tsunami troughs and crests in and around Bellingham Bay.

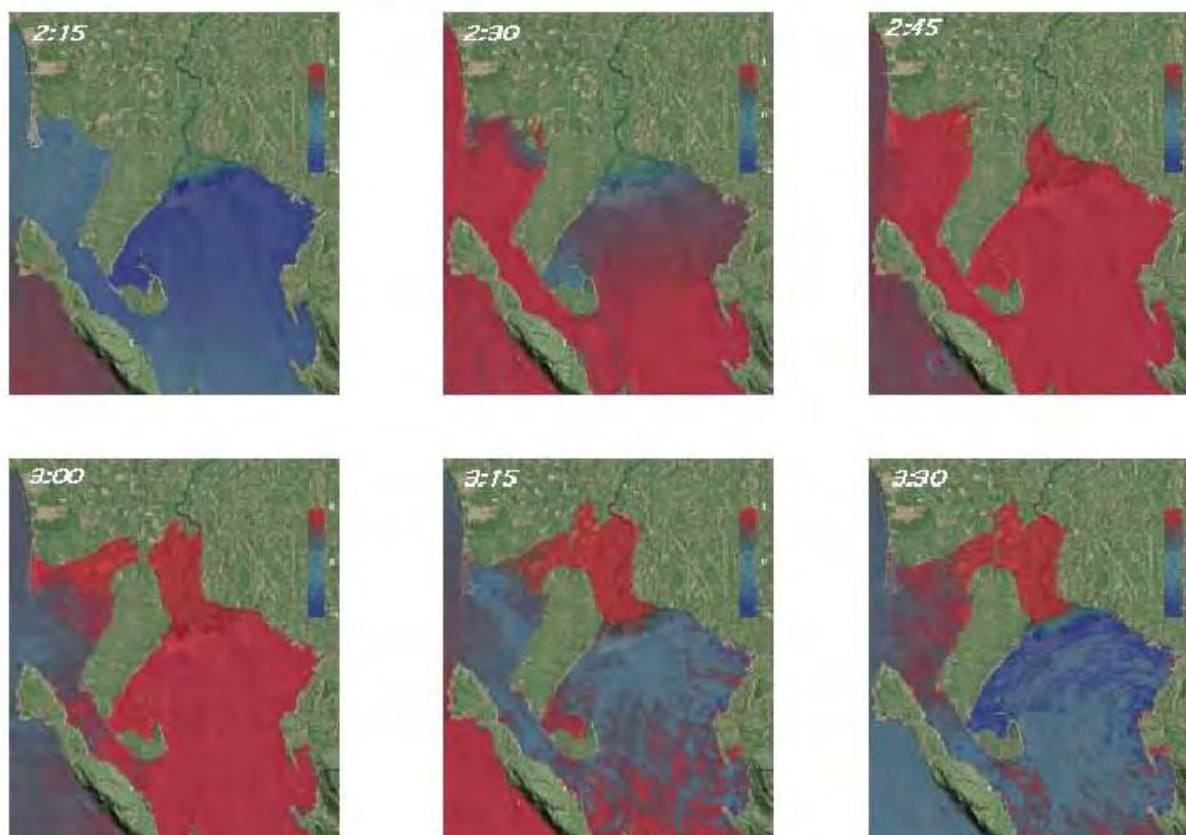


Figure 3 – Screen shots of animation of a tsunami arriving in Bellingham area, lasting about 3:30 hours. Red areas are *crests*, blue are *troughs*. (Picture obtained from the NOAA T.I.M.E. Center)

These models do not include potential tsunamis from landslides, including failure of the Nooksack River delta front, or nearby crustal faults, which are generally not well enough understood to be modeled. Apparently locally generated tsunami deposits have been found on Whidbey Island (Williams and Hutchinson 2000; Atwater and Moore 1992); in Discovery Bay, southwest of Port Townsend (Williams et al. 2002); in the Snohomish delta near Everett



(Bourgeois and Johnson 2001): and at West Point near Seattle (Atwater and Moore 1992). Gonzalez (2003) summarizes the evidence for tsunamis generated within the Puget Lowland by local earthquakes and landslides and estimates their probabilities.

When an earthquake that might generate a Pacific Coast tsunami is detected, the Alaska Tsunami Warning Center calculates the danger to the northeast Pacific Coast and notifies the communities at risk. Those warnings may give people a few hours to prepare and evacuate (depending on the distance to the earthquake).

If the earthquake occurs off our coast, however, there may be no time to send out hazard warnings. The first waves could arrive within minutes of the earthquake. The only tsunami warning might be the earthquake itself.

E. MITIGATION STRATEGIES

In order to plan for hazards, citizens need to know what to expect. In the last few years, there have been significant advances in understanding the earthquakes that have occurred on the CSZ and the tsunamis that struck the Pacific Coast. This information is the foundation for planning efforts. Because tsunami events provide little warning, one of the keys to mitigating tsunamis to effectively educate the population at risk about the hazards they face:



1. Hold public meetings to educate the public about the hazard they face. Provide handouts, evacuation maps, and a description of the warning system (typically the Emergency Alert System) that will be used to warn residents. Distribute hazard and evacuation maps to all interested parties, such as public safety agencies, citizen groups, etc.
2. Establish evacuation plans for all affected communities to effectively remove all people from the hazard area in the event of a tsunami warning. This includes identifying all facilities that may need extra assistance in evacuating (nursing homes, day cares, etc.). The evacuation plan should also address the timeline for a full evacuation, as well as a division of labor to identify which agencies will do which actions.
3. Establish requirements that existing critical facilities must be reviewed for susceptibility to tsunamis. These facilities should be reviewed to determine what kind of mitigation action should be taken for each facility.
4. Post Tsunami signs that show the existence of the hazard area, and the way to the



nearest evacuation route.

5. New critical facilities constructed in the tsunami hazard zone must be elevated above the hazard area, armored in place, or built outside the hazard area if at all possible. The 2018 model, demonstrating increased inundation potential, published by the Washington Geologic Survey, should be used to inform the siting and mitigation measures employed during permitting of critical facilities.
6. Early warning systems should be evaluated to see if an automated system can be put into place to provide automated early warning in the event a tsunami occurs.
7. Develop Tsunami Resistant Communities, according to NOAA's Strategic Implementation Plan for Tsunami Mitigation Projects. These communities would be outfitted with the knowledge and tools outlined above to deal with a tsunami event.



Five All Hazard Alert Broadcast (AHAB) Warning Systems have been added to the five already placed along the shoreline to provide warning of tsunami waves. New locations include:

- Birch Bay Park
- Blaine (Water Treatment Plant)
- Port of Bellingham (South Harbor Loop)
- Birch Bay Village Marina
- Fairhaven (Port of Bellingham)

Three additional AHAB systems are planned for 2021

- Lummi Nation
- Birch Bay State Park
- Semiahmoo Marina

These sirens are being added due to population growth in these areas and increased tsunami risk. Also in 2020, Whatcom County started the TsunamiReady certification process with NOAA and also started the process of evaluating the risk areas and evacuation routes that had been identified in 2015 as newer modeling suggests that the identified evacuation routes will likely not survive even a moderate earthquake due to liquefaction. In 2019, Whatcom County completed and issued the Whatcom County Tsunami Action Plan which details response actions. Whatcom County is also now part of the State of Washington Inner Coast Working



Group.

-Whatcom County will continue to explore options for defining conservative estimates of tsunami inundation potential in areas not currently addressed by available tsunami modeling. When new modeling data becomes available from the Washington State Geological Survey addressing tsunami potential for the entire County, this information can be used to refine or replace conservative estimates. The identification of safe evacuation areas is critical to the development of preparedness plans for individual and communities. Access to safe evacuation areas should be served by multiple evacuation routes in the event that secondary seismic impacts such as landslides, liquefaction, or lateral spreading damage or destroy one or more options for accessing high ground.



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VOLCANOES

A. DEFINITIONS

- Blast Zone** The area immediately surrounding a volcano, up to several tens of kilometers, that is destroyed by a volcano's blast.
- Lava Flow** A stream of molten rock that pours or oozes from an erupting vent.
- Lahar** A mudflow or debris flow that originates from the slope of a volcano; pyroclastic flows can generate lahars by rapidly melting snow and ice.
- Pyroclastic Flows** High-density mixtures of hot, dry rock fragments and hot gases that move away from the vent that erupted them at high speeds.
- Tephra** General term for fragments of volcanic material, regardless of size, that are blasted into the air by explosions or carried up upward by hot gases in eruption columns or lava fountains.
- Volcano** A vent in the earth's crust through which magma (molten rock), rock fragments, associated gases, and ashes erupt, and also the cone built by effusive and explosive eruptions.

B. BACKGROUND INFORMATION

The Cascade Range (Cascades) extends more than 1,000 miles, forming an arc-shaped band extending from Southern B.C. to Northern California. The Cascades roughly parallels the Pacific coastline, and at least 17 major volcanic centers. Whatcom County's eastern boundary follows the crest of the Cascade Range.

The central and southern Cascades are made up of a band of thousands of much older, smaller, short-lived volcanoes that have built a platform of lava and volcanic debris. Rising above this volcanic platform are a few large younger volcanoes that dominate the landscape. The North Cascades, including Whatcom County, present younger (Quaternary) volcanoes overlying much older metamorphosed basement rock.

The Cascades volcanoes define the Pacific Northwest section of the "Ring of Fire," a fiery array of volcanoes that rim the Pacific Ocean. These volcanoes can be seen to the left in figure 4. Many of these volcanoes have erupted in the recent past and will most likely be active again in the future. Given an average rate of two eruptions per century during the past 12,000 years,

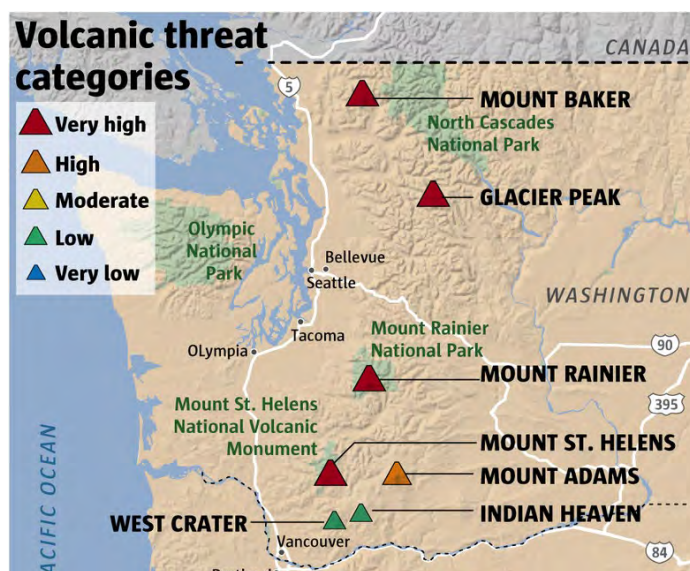


Figure 4. Washington Volcanoes and threat showing Mt. Baker as a major volcanic threat in Whatcom County. (Source: ESRI, USGS; created by Mark Nowlin/Seattle Times)

these disasters are not part of our everyday experience. The largest of the volcanoes in Washington State are Mount Baker, Glacier Peak, Mount Rainier, Mount Saint Helens, and Mount Adams. Eruptions from Mount Baker, located in the central portion of Whatcom County, and Glacier Peak, in Snohomish County, would severely impact Whatcom County. Mount Baker and Glacier Peak have erupted in the historic past and will likely erupt again in the foreseeable future. Due to the topography of the region and the location of drainage basins and river

systems, eruptions on Mount Baker could severely impact large portions of Whatcom County. A Mount Baker eruption would generate lahars, pyroclastic flows, tephra or ash fall, and lava flows that would decimate affected areas, as shown in the map below. Glacier Peak, which is in Snohomish County, is of concern due to its geographic proximity to the County. Ash fall from an eruption at Glacier Peak could significantly impact Whatcom County.



Photo of Mt. Baker in Whatcom County

Mount Baker, seen to the left, (3,285 meters; 10,778 feet) is an ice-clad volcano in the North Cascades of Washington State about 50 kilometers (31 miles) due east of the city of Bellingham. After Mount Rainier, it is the most heavily glaciated of the Cascades volcanoes: the volume of snow and ice on Mount Baker (about 1.8 cubic kilometers; 0.43 cubic miles) is greater than that of all the

other Cascades volcanoes (except Rainier) combined. Isolated ridges of lava and hydrothermally altered rock, especially in the area of Sherman Crater, are exposed between glaciers on the upper flanks of the volcano; the lower flanks are steep and heavily vegetated. The volcano rests on a foundation of non-volcanic rocks in a region that is largely non-volcanic in origin.



C. RECENT HISTORY IN WHATCOM COUNTY

Eruptions in the Cascades have occurred at an average rate of 1 to 2 per Qwest during the past 4,000 years, and future eruptions are certain. Seven volcanoes in the Cascades have erupted within the past 225 years (see Table 6).

Table 6. History of Major Volcanic Eruptions in the Cascade Mountain Range in the Past 225 Years

Volcano	Eruption Type	Eruptions in the Past 225 Years	Recent Activity
Mount Baker	Ash, lava	1?	1792, 1843 to 1865, 1870?, 1880, and 1975 steam emission
Glacier Peak	Ash	1+?	Before 1800 (1750?)
Mount Rainier	Ash, lava	1?	Tephra between 1830 and 1854
Mount St. Helens	Ash, lava, Dome	2 eruptive periods	1980 to present
Indian Heaven Volcanic Field	Lava, scoria	None	8,000 years ago?
Mount Adams	Lava, ash	None	3,500 years ago
Mount Hood, Oregon	Ash, dome	2+?	1865, major eruption in the late 1700s

Note: Information obtained from WDNR

Four of the eruptions listed in Table 6 would have caused considerable property damage and loss of life if they had occurred post-development of Whatcom County without warning and the next eruption in the Cascades could affect hundreds of thousands of people. The most recent volcanic eruptions within the Cascade Range occurred at Mount Saint Helens in Washington (1980 to 1986; 2004 to 2008) and at Lassen Peak in California (1914 to 1917).

We know from geological evidence that Mount Baker has produced numerous volcanic events in the past that, were they to occur today, would place Whatcom County communities at considerable risk. Volcanic hazards from Mount Baker result from a variety of different eruptive phenomena such as lahars, ash fall, tephra fall, and pyroclastic flows. Figure 5 displays a model of the inner workings and hazards associated with volcanoes.

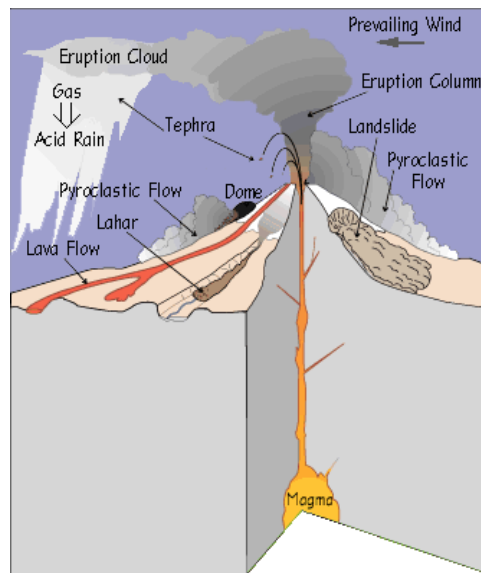


Figure 5 – Effects of a Volcano Eruption
(Diagram courtesy of USGS Cascade Volcano Observatory)

Geologic evidence in the Mount Baker area reveals a flank collapse near the summit on the west flank of the mountain that transformed into a lahar, estimated to have been approximately 300 feet deep in the upper reaches of the Middle Fork of the Nooksack River and up to 25 feet deep 30 miles downstream. This lahar may have reached Bellingham Bay. A hydrovolcanic (water coming into contact with magma) explosion occurred near the site of present-day Sherman Crater, triggering a second collapse of the flank just east of the Roman Wall. This collapse also became a lahar that spilled into tributaries of the Baker River.

Finally, an eruption cloud deposited several inches of ash as far as 20 miles downwind to the northeast. Geologic evidence shows lahars large enough to reach Baker Lake have occurred at various times in the past. Historical activity at Mount Baker includes several explosions during the mid-19th century, which were witnessed from the Bellingham area.

Sherman Crater (located just south of the summit) probably originated with a large hydrovolcanic explosion. In 1843, explorers reported a widespread layer of newly fallen rock fragments and several rivers south of the volcano were clogged with ash. A short time later, two collapses of the east side of Sherman Crater produced two lahars, the first and larger of which flowed into the natural Baker Lake, raising its water level at least 10 feet.

In 1975, increased fumarolic activity in the Sherman Crater area caused concern an eruption might be imminent. Additional monitoring equipment was installed and several geophysical surveys were conducted to try to detect the movement of magma. The level of the present-day



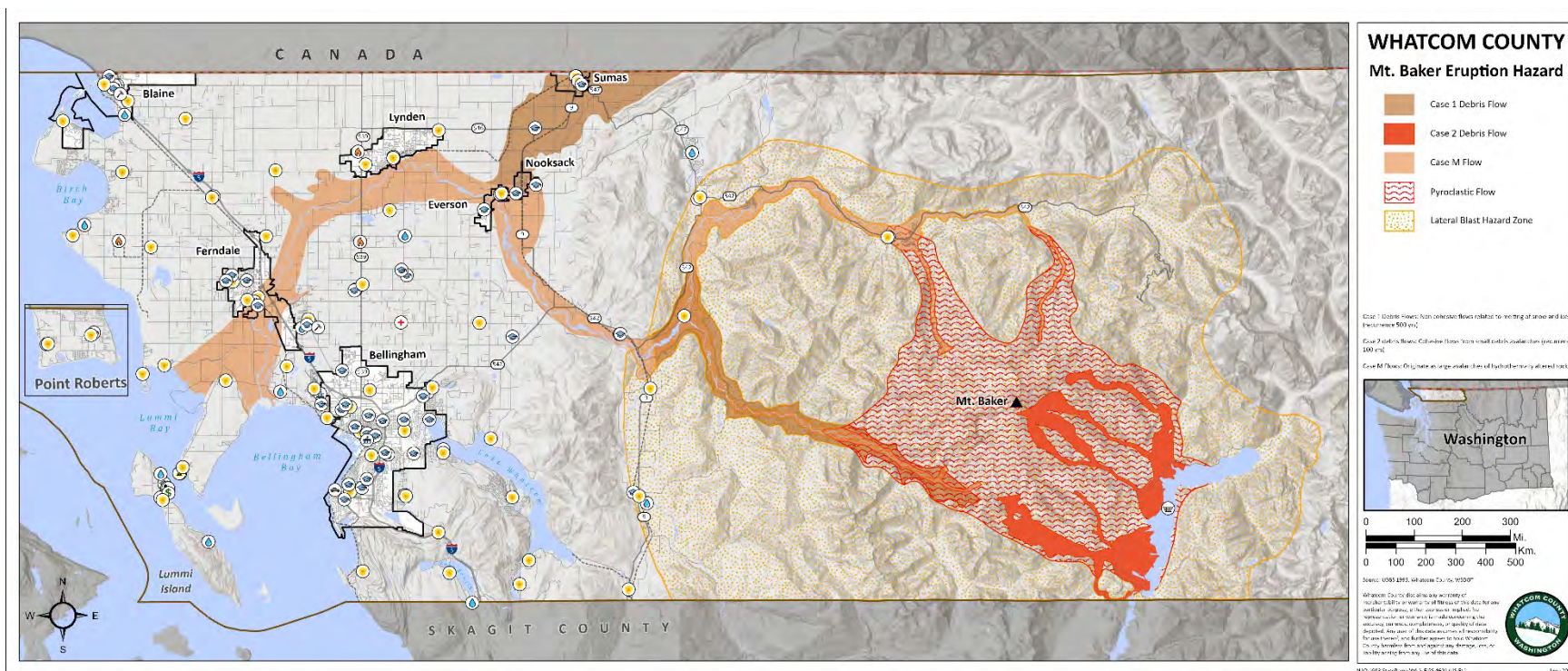
Baker Lake reservoir (located to the east and south of the mountain) was lowered and people were restricted from the area due to concerns that an eruption-induced debris avalanche or debris flow might enter Baker Lake and displace enough water to either cause a wave to overtop the Upper Baker Dam or cause complete failure of the dam. However, few anomalies other than the increased heat flow were recorded during the surveys nor were any other precursory activities observed to indicate magma was moving up into the volcano. This volcanic activity gradually declined over the next 2 years but stabilized at a higher level than before 1975. Several small lahars formed from material ejected onto the surrounding glaciers and acidic water was discharged into Baker Lake for many months.

D. VULNERABILITY ASSESSMENT

Lahars are the primary threat from volcanic activity at Mount Baker. Originating from melted snow and ice, lahars could create torrents of ash, rock, and water. Flank collapses may also create volcanic landslides that may form into lahars. Lahars resulting from flank collapses can also be triggered by earthquakes, gravity, or increases in hydrovolcanic activity. Debris flows can remain hazardous for many years if the deposited material remobilizes from heavy rains.

Most cohesive debris flows will be small to moderate in volume and will originate as debris avalanches of altered volcanic rock, most likely from the Sherman Crater, Avalanche Gorge, or the Dorr Fumarole area. Small volume debris flows will pose little risk to most people, but moderate volume debris flows could travel beyond the flanks of the volcano.

The probability of either Mount Baker erupting, collapsing, or causing slides is low. However, volcanic activity from either mountain could result in massive destruction of property and probable loss of lives in or near the floods, lahars, earthquakes, landslides, and ash fall.



Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



Examples of hazards and “worst-case scenarios” in Whatcom County, including adjacent counties and Canadian Provinces, as follows:

1. Small to moderate collapse in the area of Sherman Crater may produce lahars flowing into Baker Lake and result in the following:
 - Raised level of Baker Lake
 - Baker Lake Dam failure
 - Flooding of the entire Skagit floodplain to Puget Sound
2. Large flank collapses or pyroclastic flows could result in the following:
 - Inundation of Skagit River Valley by displacement of water in reservoirs by lahars
 - North Fork, Middle Fork, and Nooksack River to Bellingham Bay could be inundated, and enough debris flow could be deposited in the stretch of river between Lynden and Everson to raise the riverbed enough to spill into the Sumas River or to divert the Nooksack River into the Sumas River Basin (such an event is considered high consequence but low probability)
 - Floodwaters could extend from Sumas into Huntingdon and Abbotsford, B.C.
 - Flooding all the way to Bellingham Bay
3. Hospitals: Bellingham’s Saint Joseph Hospital and the Outpatient Center would be isolated from other communities
4. Transportation Routes: I-5 flooded at Nooksack and/or Skagit Rivers; Highway 9 flooded at Deming and Sedro Woolley (Skagit County); Mount Baker Highway (SR 542) flooded
5. Ash fall: will depend on direction of the wind (prevailing winds are toward the East); the ash may cause reduced visibility or darkness; air filters and oil filters in automobiles and emergency vehicles become clogged
6. Airports: All local airports may be impacted by ash fall
7. Railroad tracks, power lines, radio towers, highways, campgrounds, natural gas pipelines, and water supplies in these more remote areas may be inundated
8. Forest fires from ash and volcanic eruption may be expected



9. Earthquakes may occur
10. Lightning and thunderstorms often accompany volcanic eruptions
11. City of Bellingham's Middle Fork water supply diversion dam, tunnel, and pipeline to Lake Whatcom possibly buried and/or destroyed
12. Large numbers of farm animals, people, fish, and wildlife may be required to be relocated (temporarily or permanently), injured, or, if warning and guidance are not followed, killed. Those most vulnerable initially would be those nearest the pyroclastic, lahar, and lava flows, or heavy ash and rock fall during the eruption. Those people in this recreational area of forests and wildlife may be impossible to locate and rescue. Baker Lake and its dams are vulnerable and, if impacted, could cause extensive loss of property and lives downstream in Skagit County.



Photo of a lahar and damaged buildings.

Lahars flowing down and flooding the Nooksack, Baker, and Skagit Rivers may provide very little warning for evacuation to nearby populations. The potential destruction of a town is shown in the image above. Earthquakes accompanying an eruption may cause bridge or road damage and trigger landslides. Fine ash fall, even if only an inch thick, may make asphalt road surfaces slippery, causing traffic congestion on steep slopes or

accidents at corners and junctions. Even a minor eruption or large flank collapse

of Mount Baker could impact some populations physically, psychologically, and economically.

Secondary Volcanic Hazards

1. Flooding:
 - a. Baker Lake and Lake Shannon – possibly dams destroyed
 - b. Nooksack River from origins to Bellingham Bay
 - c. Skagit River from Baker River junction throughout Skagit River Valley to Puget Sound
2. Transportation: severe disruption



3. Water lines, water reservoirs: contaminated or broken and depleted
4. Communication: landlines down, wireless phones overwhelmed
5. Electric power: some or all power lost from Mount Vernon to Lynden and possibly further in all directions
6. Gas and fuel pipelines: possibly broken
7. Toxic waste, sewer, and household chemicals in flood areas

E. MITIGATION STRATEGIES

Generally, technology and tell-tale signs of eruptions from volcanoes allow experts to predict volcanic activity, such as the predictions of the 1980 Mount Saint Helen's eruption that saved many lives. However, the magnitude and timing of volcanic activities cannot be precisely predicted, giving the public little to no warning to prepare for a volcano emergency. Because of this, the best way to mitigate against volcanoes is to educate and raise awareness of affected citizens. In 2013 Whatcom Division of Emergency Management, United States Geological Survey, and the Washington State Emergency Management Division participated in the US/ Columbia Volcanic Exchange. Best practices concepts were brought back from the participants, and a focused effort led to a completion of a public information campaign for the Northern Cascade volcanos.

The original hazard publication for Mt. Baker was published by the United States Geological Survey in 1997. An updated hazard publication is currently being produced by the USGS and will provide improved estimates of potential hazards. Estimates of lahar inundation depth, extent, and velocity will be modeled using modern techniques and will allow the development of improved evacuation routes and volcanic hazard management plans. Upon publication by the USGS, all existing volcanic emergency response plans should be updated to reflect the improved understanding of potential hazards.

In 2018 the Whatcom County Department of Emergency Management conducted the Mount Baker Volcano Exercise. This 5-day exercise was designed to simulate the likely sequence of events to be experienced during a multi-month volcanic event at Mount Baker, culminating in an eruption, emergency response, and post-event recovery. Representatives from the USGS Cascades Volcano Observatory devised the scenario as a likely analog to probable events at Mount Baker, and multiple agencies participated in a coordinated response. The purpose of the exercise was to test the ability of the current volcanic emergency plan to respond to the simulated event by evaluating the participants responses to the following six functional areas:



Small Communities, Interagency Response and Coordination, Elected Officials, Command, Control, Coordination & Communication, Search and Rescue, and Recovery. Lessons learned from the exercise have been or will be incorporated in future iterations of the Whatcom County DEM volcanic emergency response plan.



WILDLAND FIRES

A. DEFINITIONS

Structure Fire A fire of natural or human-caused origin that results in the uncontrolled destruction of homes, businesses, and other structures in populated, urban or suburban areas.

Wildland fire Fire of natural or human-caused origin that results in the uncontrolled destruction of forests, field crops and grasslands.

Wildland Urban interface A fire of natural or human-caused origin that occurs in, or near, forest or grassland areas, where isolated homes, subdivisions, and small communities are also located.

B. BACKGROUND INFORMATION

Wildland fire is a serious and growing hazard over much of the United States, posing a great threat to life and property, particularly when it moves from forest or rangeland into developed areas. An image of a wildland fire can be seen to the left. However, wildland fire is also a natural process, and its suppression is now recognized to have created a larger fire hazard, as live and dead vegetation accumulates in areas where fire has been excluded. In addition, the absence of fire has altered or disrupted the cycle of natural plant succession and wildlife habitat in many areas. Consequently, United States land management agencies are committed to finding ways, such as prescribed burning, to reintroduce fire into natural ecosystems, while recognizing that firefighting and suppression are still important. USGS conducts fire-related research to meet the varied needs of the fire management community and to understand the role of fire in the landscape; this research includes fire management support, studies of post-fire effects, and a wide range of studies on fire history and ecology. Whatcom County's evolution over the years has resulted in greater numbers of residents either living in or immediately adjacent to wildlands.

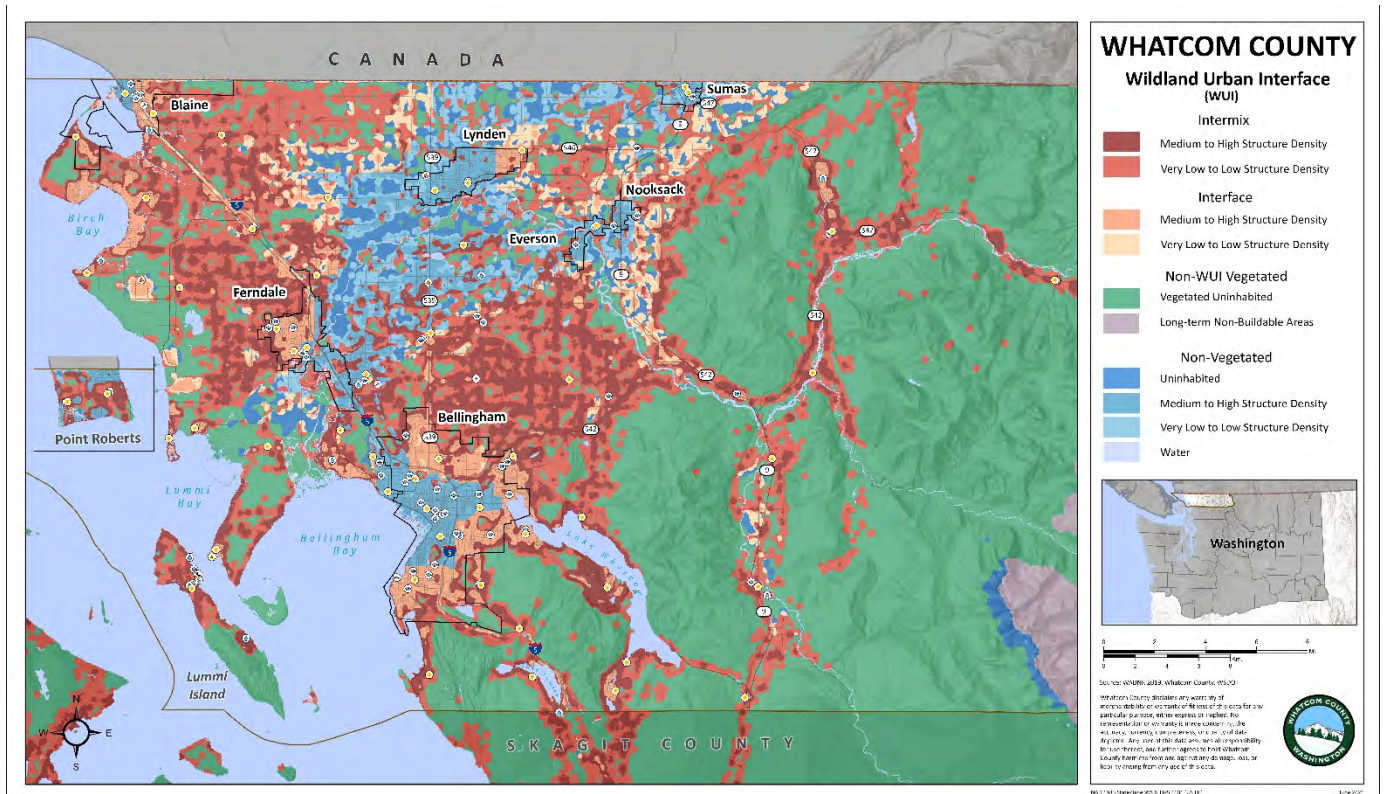


Image of a Wildland Fire.

Whatcom County's population has grown from 81,293 in 1970 to over 229,000 in 2019. While most of the growth has occurred in Whatcom County's cities, a significant number of homes



and businesses have been built in a wildland interface or intermix fashion. The following Wildland-Urban Interface map demonstrates the density of these population centers. Large tracts of forest either abut or surround communities increasing the risk that an uncontrolled wildland fire will result in significant or even catastrophic loss. With few roads for ingress or egress, certain areas could be cutoff rather quickly.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.

C. RECENT HISTORY IN WHATCOM COUNTY

In terms of acres burned, 2020 ranked second to the record-setting 2015 fire season when over one million acres of land burned in Washington. In 2020, over seven hundred thousand acres of Washington land was charred by wildfire. During this same period, Whatcom County experienced several wildfires, the most notable one being the Goodell Fire in 2015. This fire started on August 10th by lightning and burned for the next several weeks consuming over 8,000 acres of timber and brush in rocky, mountainous terrain. Transmission lines from several hydroelectric power plants running alongside the Skagit River were threatened and evacuation of Seattle City Light staff were evacuated from Diablo and Newhalem. Campers in the area



were also evacuated and the North Cascades National Park was closed as was a 90 mile stretch of Highway 20 connecting several communities on the east and west side of the Cascades. In April 2020, an 80-acre fire (Porter Creek Fire) burned for several days near Deming. A number of smaller wildfires have also burned in Whatcom County and threatened homes and other structures.

In some cases, two or more fires merged together, overwhelming resources and creating fires so large and complex that some were not fully extinguished until cooler, damp autumn weather moved into the region.

Changing Conditions

Changing weather patterns are creating conditions that leave western Washington's environment more conducive to wildfire. Figure 6 is a graphic showing these condition changes. Increasing temperatures, less rain falling in the summer, and earlier snow melt are resulting in drier fuels and forests in our area. Drought conditions lead to dry and dead fuels which mean our forests are becoming increasingly more flammable and homes in the wildland-urban areas are more at risk.

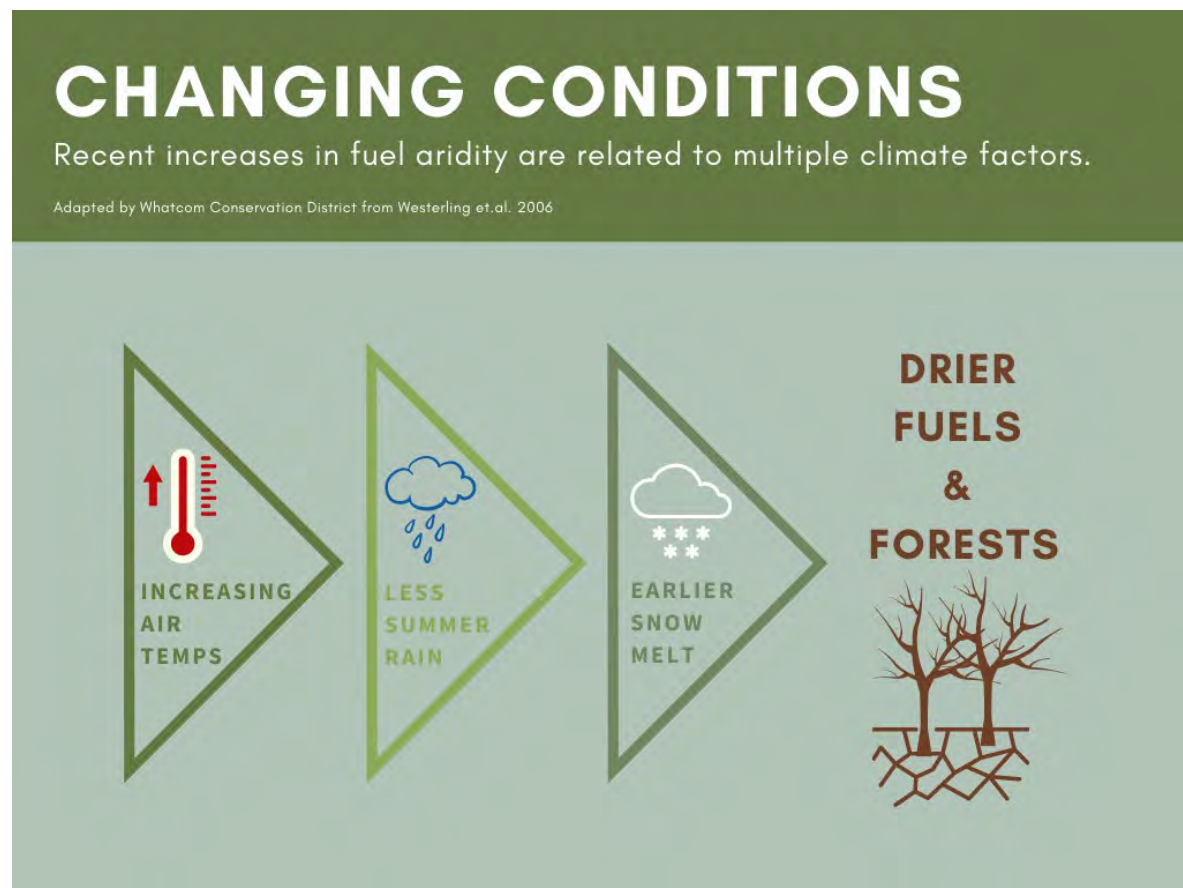




Figure 6 showing how changing yearly weather conditions leads to an increased risk of fire.



D. VULNERABILITY ASSESSMENT

The Washington Department of Natural Resources no longer uses the “Risk Assessment and Mitigation Strategies” tool which aided development of this wildfire section. The new modeling software-“Wildfire Prevention Spatial Assessment and Planning Strategies (WPSAPS)-is currently being developed by the Interagency Workgroup but has not yet been finalized or available for release in a draft form. Whatcom County will revisit and update this section during the annual review process when the new model is released. The revised section will be forwarded to the Washington State Hazard Mitigation Officer and FEMA at that time. In the meantime, the Risk Assessment and Mitigation Strategies (RAMS) remains the most authoritative source for developing wildfire hazard and associated mitigation strategies for Whatcom County.

Should a large wildland or wildland-urban interface fire occur in Whatcom County, the effects of such an event would not be limited to loss of property, valuable timber, wildlife and habitat, or recreational areas. The loss of large amounts of timber on steep slopes would increase the risk of landslides and mudslides during the winter months and the depositing of large amounts of mud and debris in streams and river channels could threaten valuable fish habitat for many years. In addition, the loss of timber would severely impact the watershed of the Skagit River and could drastically increase the vulnerability to flooding for many years.

WDNR, Northwest Region, has conducted a region-wide wildland fire hazard assessment utilizing the following method:

1. Risk Assessment and Mitigation Strategies (RAMS) was developed for fire managers to be an all-inclusive approach to analyzing wildland fire and related risks. It considers the effects of fire on unit ecosystems by taking a coordinated approach to planning at a landscape level. The steps involved in this process include the following:
 - a. Identification of spatial compartments for assessment purposes:
 - i. Whatcom County (county # 37) was subdivided into three risk assessment compartments based on Industrial Fire Precaution Level (IFPL) Shutdown Zones. Zone 653 represents the islands and tidal lowlands; Zone 656 represents the interior lowlands (roughly the Interstate 5 corridor); and Zone 658 represents the uplands to the Cascade Crest (roughly 1,500 feet elevation and above). Whatcom County risk assessment compartments are numbered using the county number (37) combined with the shutdown zone number. Using this scheme, the three risk assessment compartments within Whatcom County are numbered 37653, 37656 and



37658.

- b. Assessment of significant issues within each compartment, which are related to:
 - i. Fuels Hazards – The assessment of fuel hazards deals with identifying areas of like fire behavior based on fuel and topography. Given a normal fire season, how intense (as measured by flame length) would a fire burn? Under average fire season conditions, fire intensity is largely a product of fuel and topography.
 - ii. Protection Capability – Determining fire protection capability for the purpose of this assessment involves estimating the actual response times for initial attack forces and how complex the actual suppression action may be once they arrive because of access, fuel profile, existence of natural or human-made barriers to fire spread, presence of structures, and predicted fire behavior.
 - 1. Initial Attack Capability – actual time of first suppression resource
 - 2. Suppression Complexity – access, fuel conditions, structure density, and so forth
 - iii. Ignition Risk – Ignition risk evaluation will be completed for each compartment. Ignition risks are defined as those human activities or natural events which have the potential to result in an ignition. Wherever there are concentrations of people or activity, the potential for a human-caused ignition exists. After assessing the risks within an area, it is helpful to look at historical fires to validate the risk assessment. Historical fires alone, however, are not an accurate reflection of the risks within a given area. The objective of this effort is to determine the degree of risk within given areas.
 - 1. Compartment Ignition Risk is based on:
 - a. Population Density
 - b. Power Lines – distribution as well as transmission
Industrial Operations – timber sale, construction project, fire use, mining, and so forth
Recreation – dispersed, developed, OHV, hunting, fishing
Flammables Other – fireworks, children, shooting, incendiary, cultural, power equipment
Railroads



- c. Transportation Systems – state, federal, public access
 - d. Commercial Development – camps, resorts, businesses, schools
- iv. Fire History – Fire history will be completed for each compartment to reflect:
 - 1. Fire location
 - 2. Cause
 - 3. Average annual acres burned
 - 4. Average annual number of fire by cause
- v. Catastrophic Fire Potential – An evaluation of fire history reflects the potential for an event to occur. An example is if large damaging fires occur every 20 years and it has been 18 years since the last occurrence, this would reflect a priority for fire prevention management actions.
 - 1. Evaluate large fire history
 - 2. What are the odds of a stand replacement type fire occurrence in that compartment? Unlikely Possible Likely
- vi. Values – Values are defined as natural or developed areas where loss or destruction by fire would be unacceptable. The value elements include:
 - Recreation – undeveloped/developed
 - Administrative sites
 - Wildlife/Fisheries – habitat existing
 - Range Use
 - Watershed
 - Timber/Woodland
 - Plantations
 - Private Property
 - Cultural Resources
 - Special Interest Areas
 - Visual Resources



- Threatened and Endangered Species
- Soils
- Airshed
- Other Necessary Elements

This evaluation process provides the basis for determining the *Whatcom County Wildland-Urban Interface Fire Risk Assessment Compartments* map. Additional information regarding the results of this process can be found in Appendix D, which contains excerpts from the RAMS Assessment.

RAMS risk assessment compartments were further broken down to identify Wildland-Urban Interface Hazards. Using 2010 Census data, individual areas were identified in the Wildland-Urban Interface and assessed using the National Fire Protection Association (NFPA) 299, Wildfire Hazard Assessment. The results of this assessment are depicted in the *Whatcom County Wildland-Urban Interface: Fire Risk Assessment* map, below. RAMS risk assessment is currently being updated, but new maps have not yet been released.

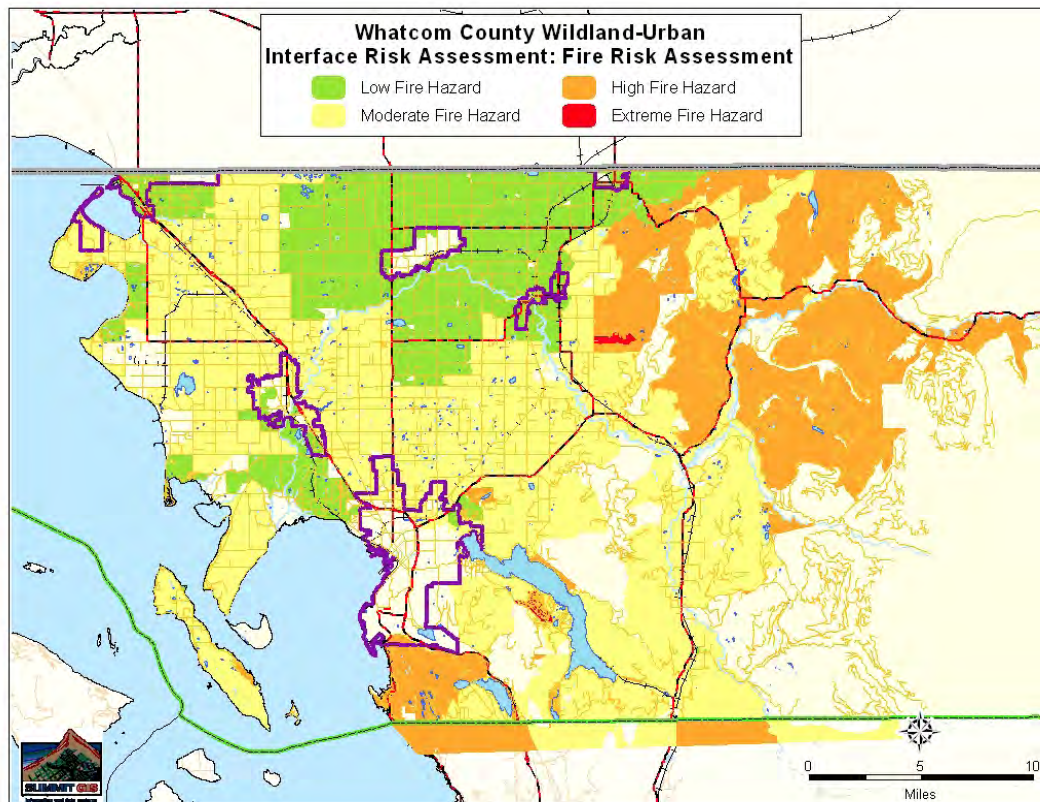


Figure 7. Interface Risk Assessment- Fire Risk Assessment map shows areas of the county at most risk of wildfire,



including the Chuckanut Mountains, and east County near Everson, Nooksack, Kendall and Glacier.

The NFPA 299 was further refined, to reflect Whatcom County Fire Manager's input, producing a map that reflects Landscapes of Like Risk (Communities at Risk). Areas that received a high to extreme risk ranking were grouped into landscapes and named. The result is depicted in the following map. These areas of Whatcom County are at highest risk of catastrophic loss to a Wildland fire.

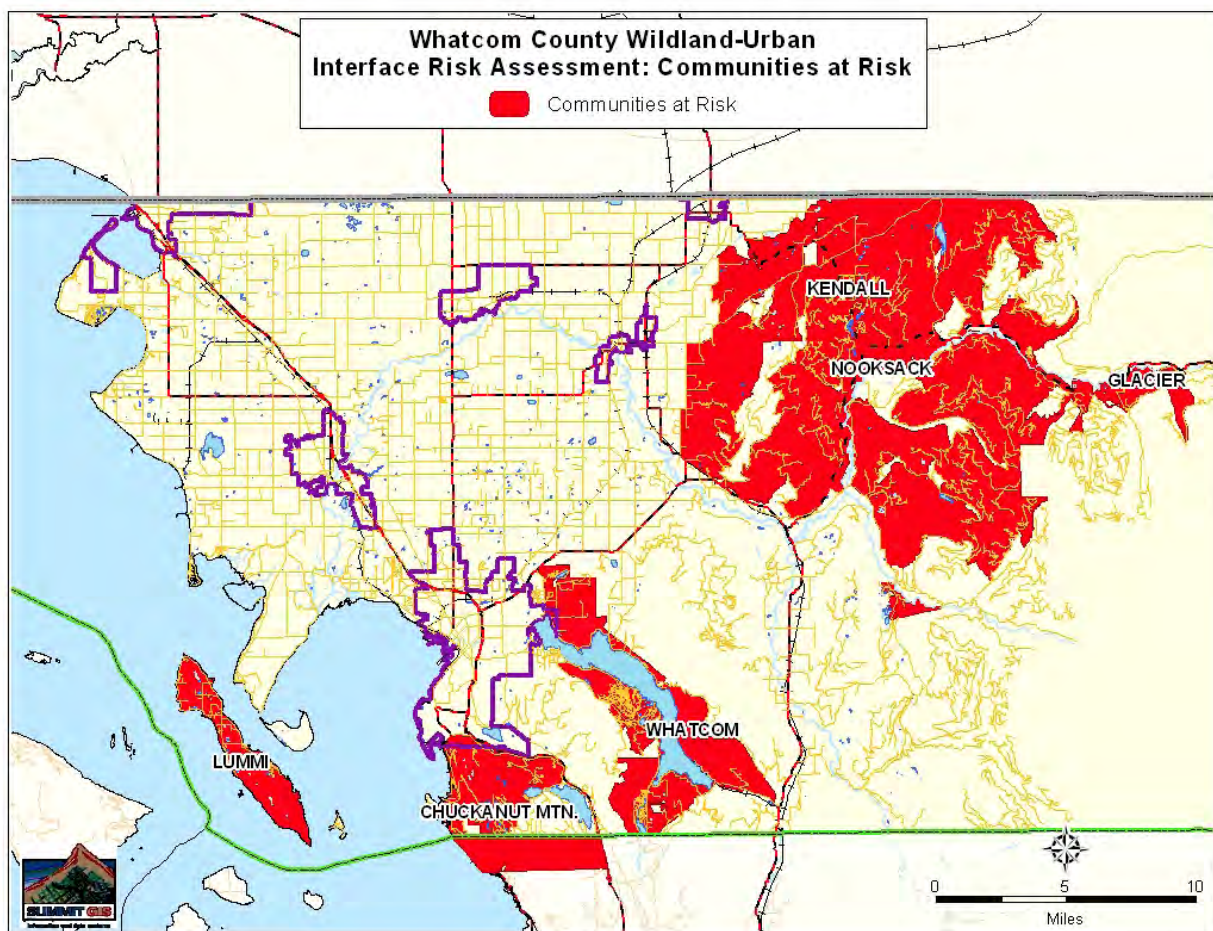


Figure 8. Interface Risk Assessment- Communities at Risk map shows communities most at risk of fire, including Lummi Island, communities around Lake Whatcom and in the Chuckanut Mountains, and the Kendall, Nooksack, and Glacier communities in east Whatcom County.

E. MITIGATION STRATEGIES

In cooperation with fire managers from WADNR, NW Region, three mitigation strategies were



developed to address Whatcom County's fire hazards. Each is discussed below.

Inter-Agency Cooperation & Partnerships

Inter-agency cooperation and successful partnerships are the key to a successful wildland fire mitigation strategy. In the case of wildland fire risk mitigation, continued development and enhancement of support between fire protection agencies will be emphasized. Working with local, state, and regional partners that are working in fire adaptation to share a unified message about wildland fire preparedness is a priority and includes participation in the NW Region Wildland Fire Local Coordinating Group and supporting Local Coordination group activities.

Support of actions proclaimed by the governor's office and the Whatcom County Executive's Office in relation to wildland fire prevention and preparedness, such as Wildfire Awareness Month and Community Wildfire Preparedness Day, should be made a priority. In addition, it is essential to support Whatcom County-based community wildland fire preparedness programs such as Whatcom Conservation District's Wildfire Risk Reduction Program that provide a direct service to residents of Whatcom County.

County-Wide Wildland Fire Prevention

In the RAMS Compartments, where the wildland fire risk has been assessed at moderate, multi-agency cooperative fire prevention activities will occur during the summer months addressing the following:

- Public awareness of current fire danger
- Press releases
- Media opportunities for fire prevention news articles
- Radio and TV spots, as needed
- Use of burn restrictions, including bans, if necessary, during periods of high fire danger
- Use of Smokey Bear fire prevention programs targeting age-specific audiences during periods of extreme fire danger, or during significant wildland fire events
- Consideration of mobilizing Washington State Inter-agency fire prevention teams
- Use of other fire prevention tactics and strategies, as needed, and as conditions warrant

Wildland/Urban Interface (WUI) Communities at Risk Preparedness

As a result of efforts conducted by WADNR, the following list of Landscapes of Like Risk were



established.

1. Lake Whatcom watershed
 - a. Sudden Valley
 - b. Northshore
 - c. Homes/neighborhoods adjacent to City acquisition lands
2. Nooksack
3. Glacier
4. Lummi Island – Lummi Island Scenic Estates, a community on Lummi Island, has received national recognition for their mitigation activities under NFPA’s Firewise USA program. Lummi Island as a whole is part of the Washington State Fire Adapted Communities Learning Network and is recognized as a community working to become more fire adapted
5. Columbia Valley/Kendall – Peaceful Valley Community is working toward becoming a nationally recognized Firewise USA site.
6. Chuckanut Mountain – Chuckanut Crest is actively working on community wildfire planning and preparedness

Communities located in the Landscapes of Like Risk should consider the following actions:

- Participation in the NFPA Firewise USA Program (www.firewise.org)
- Host wildfire preparedness workshops
- Increase homeowner awareness
- Facilitate community involvement and support
- Facilitate media involvement
- Sign up for individual wildfire home evaluations
- Use the NFPA Firewise USA program to:
 - Bring neighbors together to address shared risk
 - Provide a framework for community mitigation
 - Nationally recognize achievement
 - Receive access to grant funds for wildfire risk reduction projects



The Whatcom Conservation District can provide assistance to homeowners and communities in their understanding of wildfire, NFPA Firewise program efforts, and on-the-ground mitigation efforts. Services like free wildfire home evaluations and neighborhood wildfire risk assessments are provided through the [Community Wildfire Risk Reduction Program](#) at the Conservation District.



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SECTION 2.2 OTHER HAZARDS OF CONCERN

AVALANCHES

A. DEFINITIONS

Avalanche Masses of snow ice which move in swift motion down a mountainside or over a precipice. During the avalanche, earth, rock or other material such as trees may also be picked up. Avalanches can grow to be large, although they are not defined by their size, and depending on the situation even small avalanches can be dangerous.

B. BACKGROUND INFORMATION

Whatcom County has remote mountainous sections which receive high levels of snowfall during winter months. The maritime snowpack is traditionally deep, dense and prone to avalanches. Whatcom County is also a popular destination for winter recreationalists increasing the population exposure to avalanche.

In the future, WSDOT would like to build a new weather station in the Diablo Gorge area. This will help teams better anticipate avalanches and protect people using the mountain areas. The Northwest Avalanche Center (NWAC) offers a space for people to report observations of potentially dangerous avalanche conditions. Receiving input from the community is valuable to those who seek to keep residents and visitors safe from the risk avalanches present. You can submit a "field observation" here. You can also see observations submitted by other users here. By participating in NWAC's field observations, you can keep yourself and your community members safe. Also located on the NWAC website you can see avalanche forecasts by mountain zone and a snow depth chart, so you can plan your travels more safely.



D. RECENT HISTORY IN WHATCOM COUNTY

2020 One skier in a party of three triggered and was caught and carried by a slab avalanche that released on a SE aspect around 5500' in an area of Mt. Herman known as East Gully above Bagley Lakes. The skier was carried up to 100' downhill before hitting and being pinned against a tree. He was able to free his left arm and immediately cleared his airway. His partners helped extract him. The skier suffered minor injuries but was fortunate enough to recover all of his gear and ski down unassisted.

2020 A skier was fully buried in an avalanche that occurred adjacent to the Mt. Baker Ski Area. The avalanche was triggered by a traveler from a different party. Mt. Baker Ski Patrol was on the scene immediately, located the victim quickly, dug them out, and cleared their airway. The individual survived and reported no injuries. The slab avalanche was 1 ft deep and at its widest point broke 500 feet across the slope.

2018 A single snowmobiler triggered and was caught, carried and killed in a large slab avalanche on Park Butte in the Mt. Baker National Recreation Area. The avalanche (HS-AMu-R3-D3-O) was triggered just below the summit on a NE aspect near 5400'. The victim was carried 1000' through a gully and sparse trees. The avalanche was 200 ft (60 m) wide and averaged 4' deep (1.2m). It failed on a 2 cm thick layer of facets above a firm rain crust.

2017 Widespread 1-2 ft storm slabs and larger 3-5 ft wind slabs were reported in the backcountry near Mt Baker on Saturday, March 4th. An incident occurred on Mt Herman when a large wind slab on an east aspect was triggered from a party above, partially burying two and completely burying one in a separate party at the base of the slide path. The impacted party was transitioning back to climbing skins when they were caught in the avalanche.

2017 The lead skier in a party of four triggered a D1.5 storm slab descending the north aspect of Table Mt. at 5000'. Skier was caught and carried a few hundred feet down slope and sustained minor injuries. The other members of the party were able to assist skier off slope and back to ski area boundary.

2016 Two skiers caught, 1 seriously injured and 1 killed by a wet slab (glide) avalanche in the Mt. Baker area.

2014 Two skiers in party, one caught by a natural avalanche while ascending on



foot and carried several thousand feet, one fatality.

- 2009** One skier caught and partially buried with broken leg on Table Mountain near Mt. Baker Ski Resort. Helicopter lift off mountain.
- 2009** Mt. Baker Hwy. closed due to avalanche activity near town of Glacier.
- 2008** Five snowmobilers caught, three buried, two die near Church Mountain.
- 2006** Skier caught, buried and killed near Mt. Herman.
- 2005** Two snowboarders caught, buried and revived after 15 minutes.
- 2004** Six burials, three deaths in 2004 season, all within 5 miles of Mt. Baker Ski Resort.

C. VULNERABILITY ASSESSMENT

Avalanche incidents are primarily isolated to specific backcountry user groups. Mountainous roads, however, are susceptible to avalanches, in particular Hwy 542 (Mt. Baker Hwy) and Hwy 20. Hwy 20 is closed during most of the avalanche season; however, a large avalanche obstructing Hwy 542 has the potential to isolate hundreds to thousands at the Mt. Baker Ski Resort with limited services. Multi-agency networking, particularly between NWAC and WSDOT, allows for road crews to work proactively to reduce vulnerability to avalanches. With avalanche forecasting, which utilizes NWAC forecasting, Geographic Information Systems (GIS), and historical events (magnitude and return interval), road crews are able to close roadways and remotely trigger an avalanche using controlled detonations before they harm people. Even a small avalanche can be deadly to a person outside of their vehicle, which is why an abundance of caution and proactive action is necessary.

As most of Whatcom County is below the seasonal snowline, risk of avalanche incident is mainly limited to winter recreationalists. The threat to life from avalanches is extreme and Whatcom County traditionally will average at least one fatality a year due to avalanches. Actions are being taken to reduce the fatalities. WSDOT hosts an annual avalanche search and rescue training for operators avalanche prone areas. Furthermore, WSDOT is aiming to provide avalanche rescue gear to as many operator vehicles in avalanche prone areas, as possible in the coming years, along with quick reference cards so that these operators know how to safely work in an avalanche zone. Furthermore, plans for new avalanche retaining walls, like those seen on I-90, are being discussed.



DAM FAILURE

A. DEFINITIONS

Dam Failure The uncontrolled release of impounded water resulting in downstream flooding, which can affect life and property.

B. BACKGROUND INFORMATION

There are many dams for many different purposes throughout Whatcom County: Nooksack Diversion Dam which shunts water to Lake Whatcom from the South Fork of the Nooksack River⁴; dams for waste water reservoirs; flood-control dams; lakes dammed for recreational purposes; and hydroelectric projects on the Baker and Skagit Rivers. Dam failures can be caused by flooding, earthquakes, volcanic eruption, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, or terrorism.

In 2020, the Middle Fork Nooksack Dam was removed. This removal was done safely with controlled detonations.

D. RECENT HISTORY IN WHATCOM COUNTY

There are no known occurrences of dam failures in Whatcom County.

C. VULNERABILITY ASSESSMENT

A failure of a dam can have many effects such as loss of life and damage to structures, roads, utilities, crops, and the environment. Economic losses also can result from a lowered tax base and interruption of electrical power production.

With regular dam inspection, maintenance, and repair, the risk of dam failure is low. However, if a geologic or terrorist event precipitated a failure, the effects could be dire on the

⁴ Not to be confused with the recently removed diversion dam on the Middle Fork of the Nooksack.



downstream residents in addition to the loss of critical infrastructure.

A comprehensive analysis was performed in 2016 of dam failure modes and dam safety program. The tests showed the dams were safe.



DROUGHT

A. DEFINITIONS

Drought An extended period of months or years when a region notes a deficiency in its water supply. Generally, this occurs when a region receives consistently below average precipitation.

B. BACKGROUND INFORMATION

Droughts can be difficult to identify due to their typical long length. A drought's impact may not materialize for several years of less than average precipitation, or sudden droughts can have quick impacts if there is an extremely dry year or season. Near the beginning of a drought the agricultural sector is usually the first to be impacted. Although Whatcom County is traditionally a wet maritime climate there is potential and history of dry periods.

D. RECENT HISTORY IN WHATCOM COUNTY

- 2019** Washington State governor declares Whatcom County and 26 other counties as drought emergency.
- 2010** Mandatory water restrictions imposed across the City of Bellingham.
- 2001** Governor Gary Locke declares statewide drought emergency. First time in history for a state in the Pacific Northwest.
- 1997** Severe drought conditions existed statewide, lowest precipitation, snowpack and stream flows recorded.
- 1934-1935** Longest drought period recorded in Western Washington history.

C. VULNERABILITY ASSESSMENT

Droughts can have impacts on nearly everyone in a community. A lack of water reduces irrigation capabilities of farmers limiting the crop yield for the season/year and, critically, may reduce the availability of drinking water in the Lake Whatcom reservoir. Low water may also



affect fishers, both recreational and commercial, as several native species require cooler waters to survive. Electricity prices can increase during a drought event due to the lack of hydroelectric capabilities of dams. Droughts can also increase vulnerability to other hazards such as fires and ecological epidemics.

Severe drought in Whatcom County could have long-reaching effects due to the large amounts of agriculture and fishery as well as usage of hydro-electric power, though the County's typically wet climate prevents impacts from being as severe as they would be in drier counties.



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SECTION 2.3 WHATCOM COUNTY STORM EVENTS DATABASE

The following events, all found within NOAA's National Centers for Environmental Information Storm Events Database, are events that occurred between 2010 and 2020. While the database contains 164 events for this time period, below are the events that have a non-zero record of deaths, injuries, or recorded damage value. Only 26 events met these criteria.

EVENT_ID	214457
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	04/02/2010 1304 PST-8 / 04/02/2010 1800 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$50000/ \$0)
WFO	SEW
SOURCE	ASOS
EVENT_NARRATIVE	Bellingham (KBLI) recorded a 61-mph peak gust. Sandy Pt. Shores measured 38g58 mph at 231 PM and 236 PM. About 5,000 customers lost power.
EPISODE_NARRATIVE	A deep low passed just NW of Tatoosh Island. High wind was recorded on the coast and in a few inland zones. Strong wind was reported in other inland zones.

EVENT_ID	260893
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/15/2010 2024 PST-8 / 11/15/2010 2224 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES	(0/0)



(Direct/Indirect)	
DAMAGE (Property/Crops)	(\$40000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Both Sandy Point and Cherry Point recorded sustained wind in excess of 40 mph 824 PM to 854 PM. A tree fell on a home and another on a car in the Bellingham area.
EPISODE_NARRATIVE	South winds of 20 to 30 mph and gusts to 45 mph occurred on the evening of November 15 in parts of western Washington and then after the cold front passed, strong onshore flow brought marginal high wind to a few zones, mainly near the Strait of Juan de Fuca.

EVENT_ID	273698
CZ_NAME_STR	WHATCOM CO.
BEGIN LOCATION	DIABLO
BEGIN/END DATE & TIME	12/12/2010 600 PST-8 / 12/13/2010 300 PST-8
EVENT_TYPE	Flood
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$100000/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Parts of Highway 20 between Newhalem and Diablo were washed away by heavy rain and flooding.
EPISODE_NARRATIVE	The Stillaguamish River reached record level. There were several roads washed out in Kitsap County. 2 homes were damaged from mudslides.



EVENT_ID	347687
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	09/26/2011 1200 PST-8 / 09/26/2011 1600 PST-8
EVENT_TYPE	Strong Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$10000/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Scattered power outages were reported in the Bellingham area. A car was damaged by fallen tree limbs. Several other trees fell over roadways.
EPISODE_NARRATIVE	Strong southerly winds brought high wind to the north coast and to the area around Lake Lawrence in the southwest interior. The central coast had about 9000 lose power, and the Bellingham area had scattered power outages and a car damaged by tree limbs.

EVENT_ID	350649
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/21/2011 2330 PST-8 / 11/22/2011 400 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$5000/ \$0)



WFO	SEW
SOURCE	ASOS
EVENT_NARRATIVE	Bellingham, Cherry Point, and Ferndale all recorded high wind category winds of 40 mph sustained and/or gust 58 mph. In Birch Bay, the strong winds blew part of the roof off a manufactured home.
EPISODE_NARRATIVE	High wind occurred over the coast and northwest interior.

EVENT_ID	350662
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/27/2011 041 PST-8 / 11/27/2011 412 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$1000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Cherry Point recorded 40 mph sustained wind. Ferndale had a 62-mph gust. A building which was in its framing stages was blown down near of Squalicum High School.
EPISODE_NARRATIVE	High wind occurred over the northwest interior.

EVENT_ID	396151
CZ_NAME_STR	WHATCOM CO.
BEGIN LOCATION	DEMING
BEGIN/END DATE & TIME	06/23/2012 1415 PST-8 / 06/23/2012 1415 PST-8
EVENT_TYPE	Thunderstorm Wind
DEATHS	(0/0)



(Direct/Indirect)	
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$1000/ \$0)
WFO	SEW
SOURCE	NWS Storm Survey
EVENT_NARRATIVE	Damage survey indicated strong thunderstorm wind damage. A number of tree limbs and a few trees blown down. One power line was down near the junction of state route 9 and state route 542 east of Deming.
EPISODE_NARRATIVE	Thunderstorm wind caused minor damage.

EVENT_ID	396153
CZ_NAME_STR	WHATCOM CO.
BEGIN LOCATION	CLIPPER
BEGIN/END DATE & TIME	06/23/2012 1504 PST-8 / 06/23/2012 1504 PST-8
EVENT_TYPE	Thunderstorm Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$1000/ \$0)
WFO	SEW
SOURCE	Trained Spotter
EVENT_NARRATIVE	Observer reports limbs of 8 to 10 inches diameter blown off trees as the storm went through. Also received half an inch of rainfall and one-eighth inch hail.
EPISODE_NARRATIVE	Thunderstorm wind caused minor damage.

EVENT_ID	423211
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	



BEGIN/END DATE & TIME	12/17/2012 700 PST-8 / 12/17/2012 1300 PST-8
EVENT_TYPE	Coastal Flood
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$100000/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Birch Bay Cafe and Bistro suffered damage as waves pushed a large log through the large bay facing window. A nearby consignment shop was also damaged. About 15 homes and properties were also affected near Terrell Creek. In some cases, the water only got into the front yard, but in others it flooded garages and homes. Flooding closed about 4 miles about Birch Bay Drive.
EPISODE_NARRATIVE	High astronomical tides coincided with low pressure to cause record high tide levels throughout Puget Sound. Many homes and yards along the shoreline were flooded.

EVENT_ID	429156
CZ_NAME_STR	WHATCOM CO.
BEGIN LOCATION	BLAINE
BEGIN/END DATE & TIME	01/08/2013 2100 PST-8 / 01/08/2013 2200 PST-8
EVENT_TYPE	Debris Flow
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$5000/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Heavy rain caused a mudslide near Semiahmoo Bay.
EPISODE_NARRATIVE	Two mudslides between Jan 8th and 9th caused minor damage in King and Whatcom counties.



EVENT_ID	433529
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	02/25/2013 654 PST-8 / 02/25/2013 854 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$10000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Sandy Point Shores reported sustained wind of 40+ mph, with gusts as high as 62 mph, for a few hours. A power line was downed in southern Whatcom County.
EPISODE_NARRATIVE	There were a few hours of high wind in three of four northwest interior zones.

EVENT_ID	492737
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	01/03/2013 700 PST-8 / 01/03/2013 900 PST-8
EVENT_TYPE	Coastal Flood
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$1000/ \$0)
WFO	SEW
SOURCE	Emergency Manager
EVENT_NARRATIVE	Near Birch Bay, minor coastal flooding damaged some outdoor furniture.
EPISODE_NARRATIVE	Near Birch Bay, minor coastal flooding damaged some outdoor furniture.



EVENT_ID	540612
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	10/21/2014 2224 PST-8 / 10/22/2014 206 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(1/0)
DAMAGE (Property/Crops)	(\$80000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Several sites--Sandy Point Shores, Cherry Point, and Ferndale--recorded sustained wind of 40-42 mph with gusts up to 62 mph. Blaine homeowners Charley and Donna Robbins, who are both in their 70s, said a horrendous windstorm swept through town on Wednesday, knocking several trees into their house. The couple was able to get out of the way as one tree crashed through their roof, though Charley suffered a rib injury. They say the estimate to fix their house is \$80,000.
EPISODE_NARRATIVE	High wind affected the north coast, San Juans, and western Whatcom County during the night of October 21-22.

EVENT_ID	542363
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/06/2014 833 PST-8 / 11/06/2014 1754 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE	(\$200000/ \$0)



(Property/Crops)	
WFO	SEW
SOURCE	C-MAN Station
EVENT_NARRATIVE	<p>Ferndale had gusts 58-60 mph from 833 Am to 1210 PM. Bellingham had 40 mph sustained wind at 952 AM. Sandy Point Shores had 40-41 mph sustained wind 444 PM to 514 PM. Cherry Point had sustained wind 40 mph 454 PM to 554 PM. About 10,000 customers lost power.</p>
EPISODE_NARRATIVE	<p>A deep but filling low moved northeast across central Vancouver Island. The KPDX-KBLI gradient reached about +10 with the KOLM-KBLI portion about 2/3 of that. There was brief high wind in several zones. At the storm's peak, more than 14,000 Puget Sound Energy customers were without electricity, with the worst outages in Whatcom, Skagit and Island counties. On Thursday evening, more than 3,000 Seattle City Light customers were without power, most from an outage in Shoreline caused by a downed tree. From a Seattle Times article: A storm with high winds Thursday caused power outages across the Puget Sound region and downed power lines and trees, including one that injured a semitruck driver in Snohomish County and another that trapped a man in North Seattle. Gusts of more than 40 mph were reported in the Seattle area, with a peak of 44 mph recorded about three miles west of Des Moines, according to the National Weather Service. The strongest winds were recorded in the northern interior and North Coast from a pretty vigorous system that came in from the Pacific Ocean, meteorologist Johnny Burg said. The weather service issued a high-wind warning for the area. Destruction Island, off the North Coast, reported gusts of 63 mph, while Paine Field in Everett had a peak of 51 mph and a sustained wind of 39 mph. A tree fell on a semi on Highway 530 near Oso on Thursday afternoon and trapped the driver inside, according to the State Patrol. The man was airlifted to Harborview Medical Center with critical injuries. Highway 530 just west of 310th Street Northeast was blocked in both directions for about an hour before it opened to alternating</p>



	<p>traffic around 5 p.m. Firefighters in Seattle's Bitter Lake neighborhood rescued a man trapped by a downed tree there. The man was taken to Harborview in stable condition with no visible injuries, according to the Seattle Fire Department.</p> <p> Fallen trees were reported from Bellevue to Bainbridge Island to Sedro-Woolley and were responsible for many of the Seattle City Light and Puget Sound Energy outages throughout the day.</p> <p> At the storm's peak, more than 14,000 Puget Sound Energy customers were without electricity, with the worst outages in Whatcom, Skagit and Island counties. On Thursday evening, more than 3,000 Seattle City Light customers were without power, most from an outage in Shoreline caused by a downed tree. Washington State Ferries canceled two afternoon runs between Port Townsend and Coupeville because of high winds.</p>
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EVENT_ID	593403
CZ_NAME_STR	WESTERN WHATCOM (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	08/29/2015 1043 PST-8 / 08/29/2015 1243 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/2)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$250000/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Two elderly people died in their home near Everson after inhaling a generator's exhaust fumes during the weekend power outage.
EPISODE_NARRATIVE	High wind struck parts of Western Washington beginning around mid-morning on Saturday August 29th and continued into the afternoon hours. Widespread tree damage and power outages occurred, about 450,000 in total. Storm force winds developed over the coastal waters and Northern Inland waters.



	<p>Solid Gale force winds occurred on the remaining waters. Ferry service between Port Townsend and Coupeville was suspended because of the windstorm. A tree fell on an automobile in Gig Harbor resulting in 1 death. At least 23 car collisions reported around Puget Sound by news media, possibly weather related. Highway 99 closed for a few hours through downtown Seattle was weather-related according to media and Seattle Police. Numerous reports of trees or branches on roadways. Widespread power outages. Power outages examples: 161,000 Puget Sound Energy and 58,000 Seattle City light customers. A 10-year-old girl was killed in SeaTac when a falling tree branch hit and killed her. Two elderly people died in their home near Everson after inhaling a generator's exhaust fumes during the weekend power outage.</p>
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EVENT_ID	603539
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/17/2015 1124 PST-8 / 11/17/2015 1324 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$250000/ \$0)
WFO	SEW
SOURCE	COOP Observer
EVENT_NARRATIVE	Lynden had 62 mph at 1124 AM. Some Puget Sound Energy customers lost power.
EPISODE_NARRATIVE	Windy conditions lasted for several hours over most of western Washington. There were about 370,000 power outages reported throughout western Washington.



EVENT_ID	608906
CZ_NAME_STR	CASCADES OF WHATCOM AND SKAGIT COUNTIES (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	42393 1230 PST-8 / 42393 1230 PST-8
EVENT_TYPE	Avalanche
DEATHS (Direct/Indirect)	(1/0)
INJURIES (Direct/Indirect)	(1/0)
DAMAGE (Property/Crops)	(\$0/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	Mark Panthen, 36, of Bellingham, died Sunday afternoon after two avalanches on the north slope of the mountain, next to the Mount Baker Ski Resort. A man who was skiing with Panthen called an employee of the resort from a cellphone around 12:45 p.m., saying Panthen was injured and needed help. There were two avalanches within 15 minutes. The avalanches were at 4,200 feet. Using a helicopter, emergency responders confirmed Panthen died around 2:20 p.m., authorities said. They provided aid to the other skier, who suffered a head injury.
EPISODE_NARRATIVE	Mark Panthen, 36, of Bellingham, died Sunday afternoon after two avalanches on the north slope of the mountain, next to the Mount Baker Ski Resort. A man who was skiing with Panthen called an employee of the resort from a cellphone around 12:45 p.m., saying Panthen was injured and needed help.

EVENT_ID	615026
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	03/10/2016 002 PST-8 / 03/10/2016 913 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES	(0/1)



(Direct/Indirect)	
DAMAGE (Property/Crops)	(\$350000/ \$0)
WFO	SEW
SOURCE	ASOS
EVENT_NARRATIVE	The Bellingham ASOS had 41g67 mph for several hours. A CWOP west of Bellingham recorded 41 mph before failing. Sandy Point Shores had 40g58 mph for several hours. A spotter 6 miles northeast of Bellingham reported an 80-mph gust. A Home Depot building in Bellingham was damaged. Three fishermen were rescued by the U.S. Coast Guard early Thursday, when their commercial fishing boat broke free from its moorage in a windstorm. The boat had been moored near Bellingham Cold Storage. One fisherman injured his foot after he had to jump in the water.
EPISODE_NARRATIVE	High wind occurred for several hours on the coast and over the north interior. Power out to about 50000 customers. Hood Canal bridge closed for 2 hours. Ferry service suspended. A 75-year-old fishing boat was destroyed when it broke free from its moorage and was pounded against some rocks.

EVENT_ID	615033
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	03/13/2016 1434 PST-8 / 03/13/2016 1914 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$90000/ \$0)
WFO	SEW
SOURCE	ASOS
EVENT_NARRATIVE	The Bellingham ASOS reported 36g58 mph. A CWOP west of Bellingham measured 50g67 mph over several hours. Sandy



	Point Shores recorded 44g68 mph over nearly five hours.
EPISODE_NARRATIVE	About 250,000 people lost power. A 42-year-old man died when his car was hit by a tree in Seattle's Seward Park. Several homes were damaged. Scaffolding at the UW was reduced to a pile of rubble by the winds. The Hwy 520 bridge and Hood Canal Bridge were closed for several hours, as was parts of I-405. There was minor damage to the 520 bridge draw span. A semi-truck was toppled on the Tacoma Narrows bridge, halting traffic. Downed trees blocked two lanes of southbound 405 in Snohomish County. Washington State Ferries canceled or delayed several routes.

EVENT_ID	673026
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	01/04/2017 204 PST-8 / 01/04/2017 404 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$153000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Sandy Point Shores recorded a gust of 58 mph. Puget Sound Energy responded to a number of power outages.
EPISODE_NARRATIVE	Brief high wind occurred at Sandy Point Shores.

EVENT_ID	666304
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	01/10/2017 1014 PST-8 / 01/11/2017 234 PST-8
EVENT_TYPE	High Wind



DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$208000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	An unusually large number of sites recorded high wind. These include Sandy Point Shores, 38g67 mph; Ferndale, 21g60 mph; Lynden, 41g54 mph; Maple Falls, 60 mph gust; Lummi Island, 70 mph gust; and Everson, 65 mph gust. Puget Sound Energy responded to a number of power outages in the area.
EPISODE_NARRATIVE	In a strong Fraser River outflow pattern, high wind occurred in western Whatcom County and the San Juan Islands.

EVENT_ID	677905
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	02/08/2017 1400 PST-8 / 02/09/2017 1600 PST-8
EVENT_TYPE	Ice Storm
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$700000/ \$0)
WFO	SEW
SOURCE	Official NWS Observations
EVENT_NARRATIVE	A multitude of observational sources (NWS spotters, CoCoRaHS, etc) show that 1 to 3 inches of snow fell across Western Whatcom County followed immediately by heavy freezing rain, resulting an ice sheet up to a half inch thick on top of new and older snow. The result was treacherous road conditions, power outages, and closures of businesses and schools.
EPISODE_NARRATIVE	A Pacific frontal system combined with sub-freezing easterly flow



	across the Cascades passes and Fraser outflow brought a major episode of snow and freezing rain to the Cascades and Western Whatcom County. All three Washington Cascades passes (Stevens Pass, Snoqualmie Pass, and White Pass) were closed to traffic in both directions for almost 24 hours due to snow and accumulating ice, avalanche danger, and slides of snow and trees. In Western Whatcom County snow became covered with a sheet of ice as thick as a half inch as precipitation changed to freezing rain.
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EVENT_ID	706935
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	08/01/2017 2000 PST-8 / 08/10/2017 600 PST-8
EVENT_TYPE	Heat
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(5/0)
DAMAGE (Property/Crops)	(\$0/ \$0)
WFO	SEW
SOURCE	Newspaper
EVENT_NARRATIVE	The heat wave resulted in 1 fatality due to heat-related causes, plus five other berry pickers treated for dehydration.
EPISODE_NARRATIVE	An extended period of unseasonably hot weather impacted Western Washington from the 1st through the 10th of the month. A male berry picker at a farm 1 mile east of Sumas in Whatcom County fell ill on the 3rd and later died. At least 5 other pickers were treated for dehydration.

EVENT_ID	721279
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)



BEGIN LOCATION	
BEGIN/END DATE & TIME	10/18/2017 1015 PST-8 / 10/18/2017 1415 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$8000000/ \$0)
WFO	SEW
SOURCE	ASOS
EVENT_NARRATIVE	KBLI had sustained wind 30 mph or greater from 1015 AM to 215 PM. Highest sustained wind was 33 mph with a peak gust of 53 mph. This verifies the high wind warning for this first event of the season, when lower criteria for high wind are in effect.
EPISODE_NARRATIVE	High wind was forecast over the two coast zones and four northwest interior zones. Since this was the first event of the season, wind speeds somewhat less than typical high winds were forecast, but impacts were expected to be similar to what higher winds would cause later in the season.



EVENT_ID	723713
CZ_NAME_STR	WESTERN WHATCOM COUNTY (ZONE)
BEGIN LOCATION	
BEGIN/END DATE & TIME	11/13/2017 1413 PST-8 / 11/13/2017 1723 PST-8
EVENT_TYPE	High Wind
DEATHS (Direct/Indirect)	(0/0)
INJURIES (Direct/Indirect)	(0/0)
DAMAGE (Property/Crops)	(\$250000/ \$0)
WFO	SEW
SOURCE	Mesonet
EVENT_NARRATIVE	Ferndale recorded a 69-mph gust. Lynden recorded a 61-mph gust. Sandy Point Shores recorded 41 mph sustained wind, gusting to 59 mph. KBLI recorded a peak gust of 58 mph. A CWOP near Bellingham recorded 40 mph sustained wind, gusting to 58 mph.
EPISODE_NARRATIVE	A strong Pacific weather system moved through Western Washington and produced wind gusts up to 70 mph in many parts of the region. The strong winds blew down some trees, knocked power out to as many as 200,000 through the area, delayed or cancelled ferry service, and produced heavy rain amounts that produced some local urban flooding. The peak of the wind event occurred between 2 and 7 PM, adversely impacting the afternoon and evening commute. A tree fell on a vehicle in Renton, killing the 32-year-old female driver and seriously injured a passenger. Another tree fell onto a mobile home in Port Orchard, seriously injuring a 15-year-old girl. Power restoration cost just over \$7 million.



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SECTION 3. JURISDICTION PROFILES AND MITIGATION ACTION PLANS

The following section chapters provide profiles and future mitigation actions for the participating jurisdictions in this Plan. Each chapter is organized into the following sections:

1. **Contact Information** – the person involved with providing information for the Plan from the jurisdiction.
2. **Approving Authority** – the person or persons who will approve the final version of the Plan.
3. **Planning Process** – describes how the jurisdiction updated the Plan.
4. **Key Contributor List** – lists both the individuals who contributed to the Plan update and lists other documents that are, or will be, informed by the updated Plan.
5. **Plan Maintenance** – explains how the Plan will be maintained and how its contents will be communicated to the public.
6. **Geography** – provides Census Bureau population information and area, as well as a jurisdiction map.
7. **Growth Trends** – areas designated as an Urban Growth Area (UGA), under Washington State’s Growth Management Act (GMA).
8. **Presence of Hazards and their Impacts** – provides a table of major hazards, the area exposed to the hazards, a qualitative assessment of the severity of impacts anticipated, and a brief description of each hazard and its potential impacts.
9. **Natural Hazard Maps** – provides seismic, wildland-urban interface, liquefaction, flood, landslide, volcano, and tsunami hazard maps for the jurisdiction. Please note the hazard maps may display only those facilities within municipality limits, so facilities outside these limits may not be displayed. Refer to the map in the Whatcom County section for facilities located outside of a jurisdiction’s city limits. Most recent natural hazard datasets available were used for the maps. Data used includes: Federal Emergency Management Agency (FEMA) 2019 flood risk, Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility, WA DNR 2017 Boulder Creek Fault Zone seismic, WA DNR 2019 wildland-urban interface, Washington Geological Survey (WGS) 2020 landslide inventory data, United States Geological Survey Mount Baker Future Activity (1995), and Whatcom County 2020 tsunami inundation data. All



data projected to NAD 1983 StatePlane Washington North FIPS 4601 (US Feet) coordinate system. No data used was changed, only symbology was edited.

10. **Critical Facilities List** – list of critical facilities for each jurisdiction’s area. These facilities were provided by each jurisdiction and include the facility name, type of facility, location information, and qualitative assessment of the significance of each facility. The section also includes a critical facilities map.
11. **Areas and Assets Exposed, Per Hazard** – geospatial analysis was performed to calculate the percent of area, population, parcels, and critical facilities exposed to different levels of seismic, liquefaction, landslide, volcano, tsunami, flood, and wildfire risk. Areas and assets exposed to hazards were calculated using Whatcom County parcel data, jurisdiction boundaries and critical facilities, natural hazard data, and Washington State Office of Financial Management (OFM) 2020 population and housing estimates for census blocks. The percent of area and parcels were calculated in ArcGIS Pro using the tabulate intersect tool, which calculates the intersection of two feature classes. For the parcel geospatial analysis, only parcels 45% or greater in a hazard were considered for the asset table. The percent of critical facilities in each hazard was found using the overlay layers tool. This tool takes multiple layers and outputs one single layer, keeping each layers’ attributes. Percent of population was calculated only using 2020 population data. Since the population data is in census blocks, in order to calculate percent of population, population was allocated. This assumes population is evenly distributed among the census block, although this is generally not the case, the assumption is made to calculate the estimates. The census block population data was intersected with each natural hazard data layer to join only census blocks that overlapped with a hazard. The area of the new census block (that overlaps with the hazard) were calculated. The area of the new census block was then divided by the original census block, multiplied by the original census block’s 2020 population to estimate how many people were in a hazard zone.
12. **Public Outreach and Education** – each jurisdiction identified the programs engaged public outreach and education, including those programs administered by non-profit organizations, through the local government, through schools, or public-private partnerships. StormReady and Firewise certification was also assessed.
13. **Status of 2015—2020 and Ongoing Hazard Mitigation Actions** – each jurisdiction reviewed and provided an update to actions proposed in the 2016 Plan, such as indicating whether the action was completed, deferred, or ongoing. Those that had not



been started or completed were considered for 2021-2025.

14. **Proposed Hazard Mitigation Strategy for 2021-2025** – lists jurisdiction-specific actions put together by each jurisdiction. This information is a detailed jurisdiction-specific extension of each hazard summary and assessment of past proposed actions. A review was conducted internally by each jurisdiction to determine priority for the mitigation actions and maximize anticipated benefits.
15. **Hazard Specific Action Items 2021-2025 Annual Review and Progress Reporting** – provides a framework for tracking 2021-2025 mitigation actions and annual progress reporting.



Overall Exposure of Whatcom County Assets

Below is the overall assessment of how much exposure the county has to key natural hazards. It analyzes exposure by area, population, parcels and critical facilities and includes both unincorporated and incorporated sections of the county. The results show that the entire county is exposed to earthquake hazard and about two thirds of the county is exposed to some flood risk, although only about 4% is in the designated 100-year and 500-year flood plain; due to good natural hazards planning, only 8% of the population levels in these flood risk areas. A third of the county area is exposed to liquefaction risk, though a majority of residents live in this area. About a third of the county is exposed to volcanic hazard, with only a very small portion of the population in these areas. About 15% of the county is in the WUI, exposed to wildfire, but over half of the population lives in these areas.

Whatcom County Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological	Earthquake, Shaking Intensity					
	MMI IV	8.9%	-	0.03%	-	-
	MMI V	36.7%	10.7%	15.7%	17.5%	\$722 ¹
	MMI VI	34.3%	77.4%	66.8%	62.3%	\$2235 ¹
	MMI VII	13.5%	8.1%	8.4%	14.6%	\$97 ¹
	MMI VIII - IX	6.6%	3.7%	7.4%	5.4%	\$76
	TOTAL	100%	99.9%	98.3%	99.8%	\$3130
	Liquefaction					
	Very Low to Low	16.9%	41.2%	41.8%	39.2%	\$942 ¹
	Low to Moderate	7.5%	29.8%	27.5%	20.3%	\$1506 ¹



	<i>Moderate</i>	-	-	-	-	-
	<i>Moderate to High</i>	4.9%	5.8%	8.5%	16.3%	\$140 ¹
	<i>High</i>	0.02%	0.04%	0.04%	2%	\$249 ¹
	TOTAL	29.32%	76.84%	77.84%	77.8%	\$2837
	Landslide					
	<i>Landslide Low</i>	0.8%	0.1%	0.25	-	-
	<i>Landslide Moderate</i>	1.2%	0.09%	0.1%	-	-
	<i>Landslide High</i>	3.2%	0.5%	1.9%	0.6%	-
	<i>Fan Low</i>	0.1%	0.04%	0.06%	-	\$0.3
	<i>Fan Moderate</i>	0.4%	0.1%	0.2%	-	-
	<i>Fan High</i>	0.9%	1%	1.9%	1.4%	\$3 ¹
	<i>Mine Hazard</i>	0.1%	2.6%	2.1%	0.8%	\$19 ¹
	TOTAL	6.7%	4.43%	6.51%	2.8%	\$22.3
	Volcanic Eruption					
	<i>Case 1 Debris Flows</i>	1.8%	1.9%	2.1%	6.2% ³	\$74 ^{1/3}
	<i>Case 2 Debris Flows</i>	1.1%	0%	-	-	-
	<i>Case M Flows</i>	3.3%	4.3%	6.3%	11% ³	\$111 ^{1/3}
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	6.8 %	0.1%	0.6%	0.8% ³	\$0.3 ³



	<i>Lateral Blast Hazard Zone</i>	26.2%	0.1%	5.5%	3.1% ³	\$21 ^{1/3}
	TOTAL	39.2%	6.4%	14.5%	21.1%	\$206.3
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	0.3%	1.4%	1.1%	3.7%	\$24 ¹
	<i>Moderate to High Inundation Potential</i>	0.3%	2.4%	0.5%	5.4%	-
	<i>High Inundation Potential</i>	0.7%	0.5%	4.9%	6.2%	\$335 ¹
	TOTAL	1.3%	4.4%	6.5%	15.3%	\$359
Hydrological	Flooding					
	<i>100-year Flood</i>	3.9%	4.9%	8%	31.8%	\$119 ¹
	<i>500-year Flood</i>	0.5%	1.6%	3.4%	16.9%	\$164 ¹
	<i>Floodway</i>	0.9%	1%	-	0.8%	\$34 ²
	<i>Undetermined (Zone D)</i>	60.4%	0.04%	0.05%	0.6%	\$9
	TOTAL	65.7%	7.54%	11.45%	50.1%	\$326
Meteorological	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	1%	1.03%	7.7%	2%	\$27
	<i>Interface Medium-High Structure Density</i>	1.6%	31.2%	26.9%	27.9%	\$1851 ¹
	<i>Intermix Very Low-Low Structure Density</i>	6.9%	8.4%	1.6%	12.1%	\$118 ¹



	<i>Intermix Medium-High Structure Density</i>	4.7%	18.4%	30.4%	22.8%	\$86 ¹
	<i>TOTAL</i>	14.2%	59.03%	66.6%	64.8%	\$2082

¹This value shows the total of 2020 Whatcom County parcel data appraised total value and community's critical facility assessed dollar value (found in the community's critical facilities list). The critical facility's assessed dollar value was used instead of the appraised total value when available.

²Shows the assessed dollar value when provided by the community in their critical facilities list. Does not include the appraised total value.

³Some critical facilities located in multiple hazard zones.

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CITY OF BELLINGHAM

Contact Information

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Approving Authority

Mayor Seth Fleetwood and City Council Members

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360 778 8000

Planning Process

The City of Bellingham’s process for the 2021 update of the Whatcom County Hazard Mitigation Plan began in January of 2021 when the City’s Emergency Manager attended a “Kickoff” meeting hosted by the Whatcom County Sheriff’s Division of Emergency Management. This was the first of five planning meetings hosted by DEM staff. During the next several months the City’s Emergency Manager and the Environmental Policy Manager met with staff from multiple City departments including Planning, Public Works, Parks, Police and Fire to solicit input on sections of the 2016 NHMP that needed updates and new goals and actions for the 2021 revision. The City’s Planning Senior GIS Analyst also reviewed the plan and provided key updates to the Critical Facilities list and the plan maps. In addition to the planning meetings and outreach to City staff, a news release describing the planning process and soliciting public input was issued on March 2, 2021. The news release also included social media posts on the City’s



and Fire Department's Facebook pages. The Emergency Manager also created a webpage for the plan update that directed the public to the County's website to review and comment on the plan in the public comment portal that DEM created. The City Council was provided an update on the process on March 22 which was followed by a public meeting hosted by DEM on March 23. In preparation for the public meeting the Emergency Manager also created a meeting announcement that was sent out to the City's list serve and it was posted on the Fire Department's Facebook page. Subsequent public meetings were advertised in a similar fashion.

The 2021 update of the NHMP received substantial assistance from Dr. Paci-Green, Director of the Resilience Institute, and two masters level students at Western Washington University as they revised the format of the Countywide NHMP, developed content, and provided consultation to City of Bellingham staff working on the update.

Key Contributor List

- Liz Coogan, Emergency Manager, City of Bellingham
- Clare Fogelsong, Environmental Resource Manager, City of Bellingham
- Chris Behee, Planning Senior GIS Analyst, City of Bellingham

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting City of Bellingham will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive Plan required by the Growth Management Act (GMA)
- Development regulations required by the GMA
- Critical Areas Ordinance
- Capital Improvement Program
- Capital facilities planning
- Water Resource Inventory Area planning
- Shoreline Master Program
- Climate Adaptation Plan



- Habitat Restoration Plans
- Wildfire Risk Reduction Programs
- Neighborhood plans

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

- Coastal Storm Modeling Systems, CoSMoS, will provide additional information on Sea Level Rise/Storm Surge impacts on the waterfront lands of Bellingham Bay. Expected to be available by June of 2021.
- Sea Level Rise Vulnerability Assessment and Risk Analysis for Bellingham Bay. Expected to be completed in June of 2022.

Plan Maintenance for the City of Bellingham

The City of Bellingham Office of Emergency Management cultivates awareness of local hazards, disaster preparedness, and resiliency in the community through a variety of education and outreach activities.

Presentations on hazard awareness and preparedness are delivered to the public in person and via videoconferencing. Information about local hazards and emergency preparedness guides are made available to the public in print and electronic forms. Outreach efforts are amplified by regular contact with twenty-five neighborhood associations which maintain close ties with households in their respective areas. Public engagement and input are encouraged through the neighborhood associations and in all interactions with this office.

The Office of Emergency Management coordinates grassroots disaster planning and resiliency at the neighborhood level by providing support and coordination for an ongoing Map Your Neighborhood program that is conducted by and for neighborhood households. The Office of Emergency Management coordinates and participates in local safety fairs and other relevant community connection programs when available.

A volunteer Auxiliary Communications Service (ACS) unit is also supported and coordinated as an opportunity for higher levels of public involvement and a resource for the Fire Department. This office also maintains open channels for ad hoc questions and comments from the public, including social media accounts, email, telephone, and text, with a representative assigned to interface with the public.



Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local resident groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	Yes, 1999	Map Your Neighborhood has been in use by Bellingham since 1999. This network allows for residents to prepare to help their neighbors before help can arrive following a disaster, which will save lives.
	Yes, 1999	CERT: Community Emergency Response Training prepares residents to safely and efficiently assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help.
	Yes, 2019	Bellingham Auxiliary Communication Service was initiated in 2019 to provide amateur radio communication support for City public service agencies and authorized volunteer emergency response units.
Ongoing public education or information programs	Yes, 2019	Public outreach events were delivered on tsunami



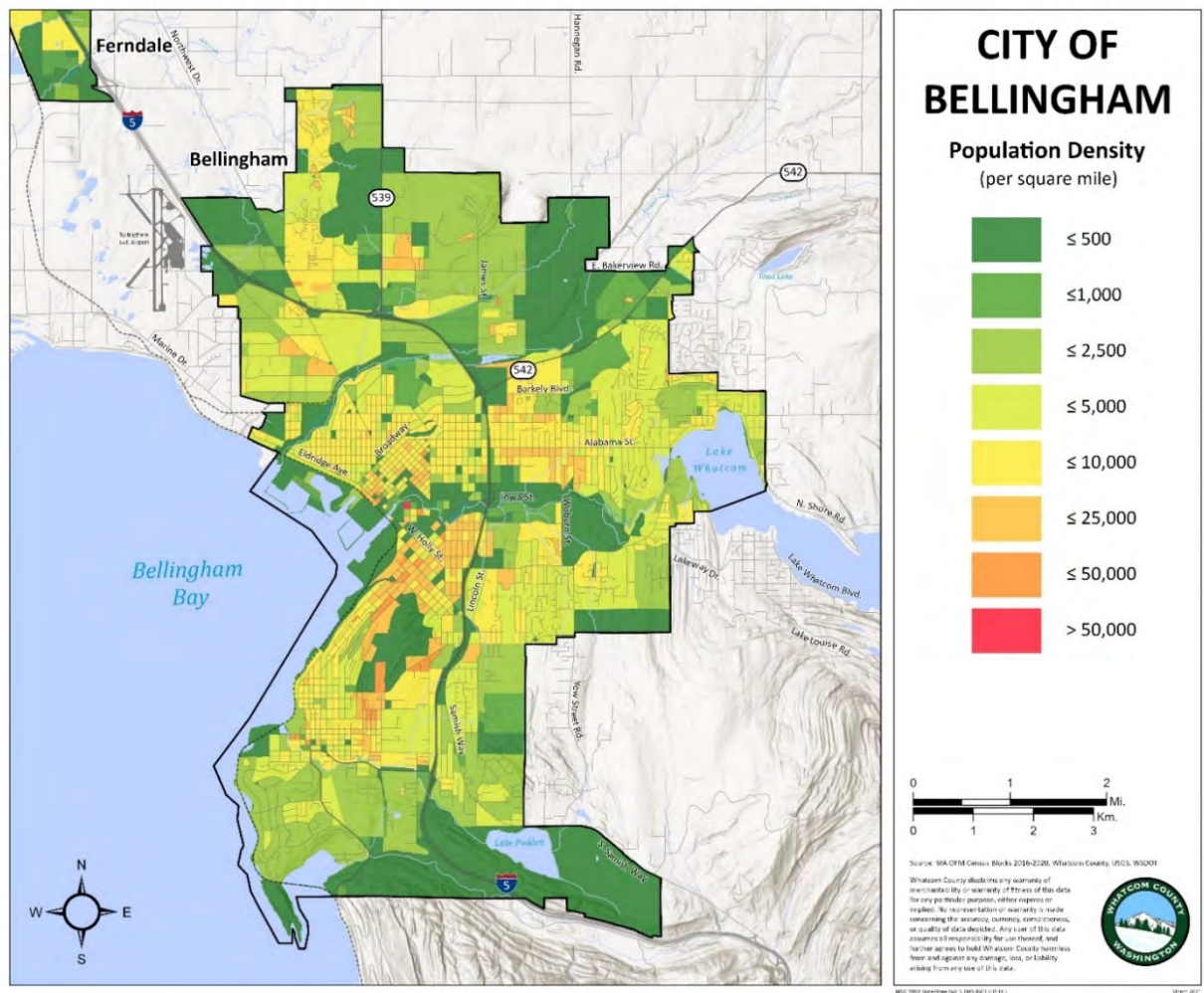
		awareness in 2019 and will resume post-COVID
School-related programs for natural hazard safety	Yes	Partnering with Red Cross for disaster awareness education in classrooms. Bellingham School District participates in the state-wide Great ShakeOut drill each October.
StormReady certification	Yes, 2003	Whatcom County is one of 14 counties in Washington State to be certified StormReady. StormReady uses a grassroots approach to help communities develop plans to handle all types of extreme weather.
Firewise Community certification	Yes, 2019	Clark's Point is a Firewise site as of November 1 st , 2019.



Overview of Bellingham, Hazards, and Assets

Geography of the City of Bellingham

Bellingham Population	91,610 (2020 estimate)
Total area	28 sq. mi. (within city limits)



Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



Presence of Hazards and their Impacts in the City of Bellingham

Natural hazards that could occur in the City of Bellingham would be related to flood events, landslides, wildfires, and earthquakes/tsunamis, as well as the effects of sea level rise and storm surge on additional flood events and marine bluff destabilization.

Since the adoption of the 2016 NHMP, Bellingham has grown by roughly 6000 people. Most City growth has occurred outside flood and landslide areas, in accordance with the City's Critical Areas Ordinance, which regulates development in these areas. In partnership with the Port of Bellingham, the City has begun development on the Waterfront Subarea, portions of which would be at risk of tsunami inundation. This risk is being mitigated by the installation of tsunami sirens, the development of a countywide tsunami action plan, the creation of tsunami evacuation route maps, and building design and construction that accounts for tsunami forces. More information on where development in Bellingham is allowed can be seen in Bellingham Municipal Code below.

The Bellingham Municipal Code (BMC) has regulations related to flooding, landslides and sea level rise.

BMC 16.55.390, .400. Addresses development in frequently flooded areas. Generally, these rules prohibit development in the FEMA floodway and severely limit development in the FEMA Floodplain (limited infrastructure). The City has also mapped frequently flooded areas NOT recognized by FEMA that could - if allowed to develop - experience impacts and damage to property as well as present a risk to life safety and welfare - not to mention additional impacts to floodplain function. The floodplain rules are more effective at determining WHERE development occurs.

BMC 16.55.450 and .460. Development in geologically hazardous areas (landslide and seismic) requires additional geo-technical analysis by a qualified professional to certify that if a landslide or earthquake occurred structures would not be compromised, inhabitants would remain safe and abutting property owners would not incur damage from failed structures. These rules don't necessarily limit WHERE development can occur but rather, the FORM that it takes in order to be safe.

BMC 16.30 EXHIBIT A – Section B 1-7. Development in areas expected to be impacted by Sea Level Rise. As part of construction of on-site infrastructure, site grades shall be raised to accommodate potential long-term sea level rise and tsunami conditions, appropriate to the design lifetime of the project, as determined using the higher end of the range predicted using best available science. The range of Sea Level Rise encoded in Bellingham regulations is found in the Waterfront District sub-area plan: "Sea Level Rise. The Waterfront District infrastructure



and development will be constructed to accommodate potential long[1]term sea level rise and tsunami conditions. Development in the Waterfront District shall be constructed in accordance with the best available sea level rise science at the time the development occurs. Recent climate change studies have projected sea level to rise 15” to 50” over the next 100 years.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Bellingham’s total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	95.2%	High	An earthquake of a magnitude predicted in the Cascadia Rising exercise would have citywide impacts as well as regional impacts of multi month duration. There is the potential for damage to roads, utilities, water supply infrastructure, communication, buildings of all types and the marine waterfront. Disruption of food and fuel delivery as well as interjurisdictional aid is also likely. Damage to the Lake Whatcom control dam would be an added flooding hazard.
	Liquefaction	64.4%	Mod	Destabilization of soils in waterfront areas built on fill would damage buildings, utilities, roads, and parks in those areas.
	Landslide	0.13%	Low	<p>Landslides due to soil destabilization from precipitation saturation could be limited to geologically vulnerable areas identified by the Critical Area Ordinance development process.</p> <p>Landslides from bluff erosion due to sea level rise would be limited to marine bluffs i.e. Edgemore, Eldridge, Marine Drive.</p> <p>Landslides that result from earthquakes could be more widespread, impacts would be to residences, some commercial buildings, and utilities.</p>
	Volcano	0%	Low	In addition to the potential ashfall within the City, the Middle Fork Diversion Facility would be impacted by lahar flows in the river.
	Tsunami	3.1%	Mod	A severe tsunami resulting from a large earthquake would significantly impact the shoreline of Bellingham Bay. Roads,



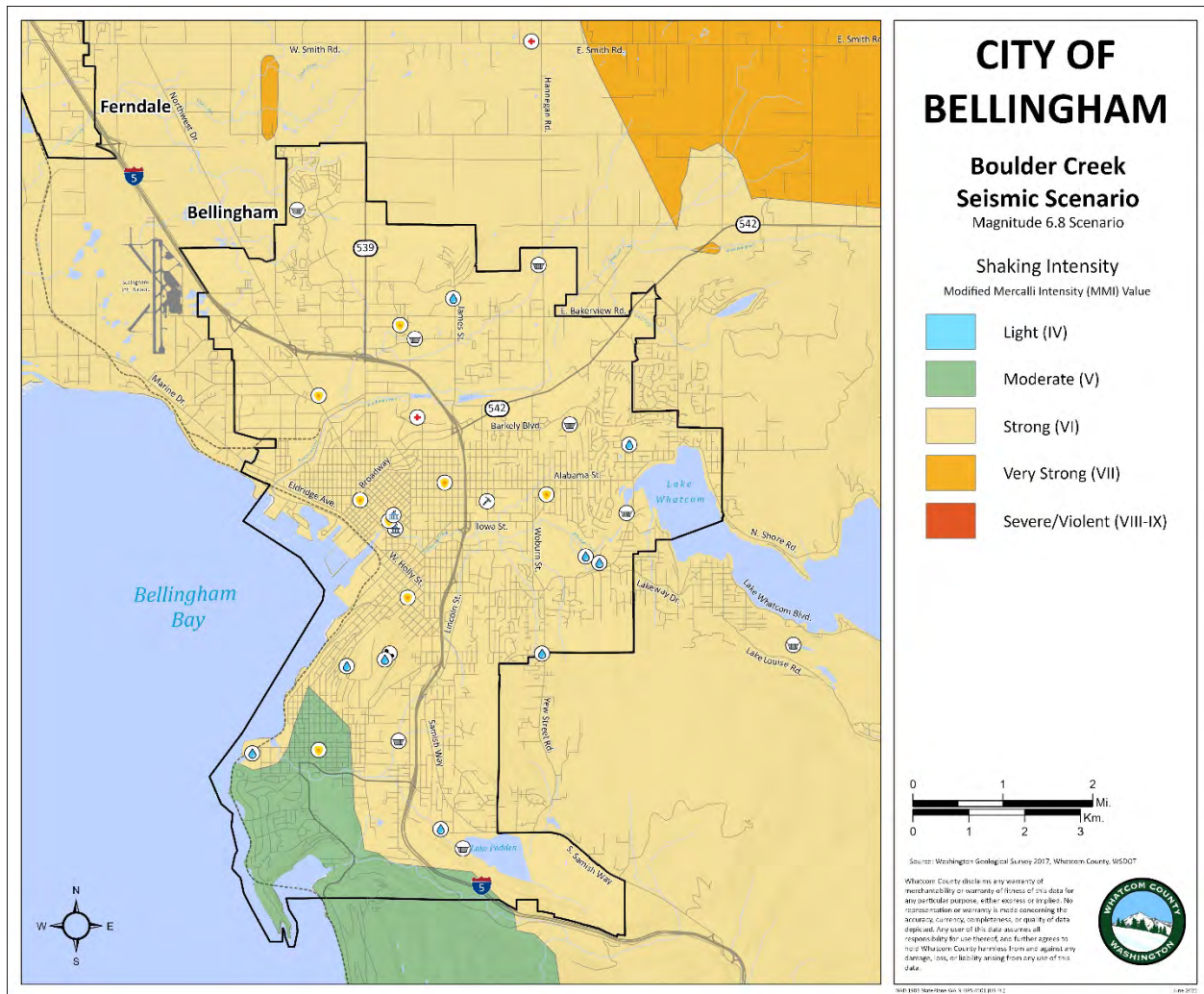
				buildings, marinas, parks, fish and wildlife habitat, and utilities could be damaged.
	Mine Hazards	4.5%	Mod	Limited to two areas of the city, Birchwood neighborhood and the downtown business district, that include critical infrastructure, residences, and commercial buildings.
Hydro-logical	Flooding	9.67%	Low	Multiple creeks systems (Chuckanut, Padden, Silver/Bear, Squalicum, and Whatcom that pass through the city are subject to flooding. In heavy rains these creeks can exceed their banks. Near term impact of flooding due to storm surge disrupts passability of Roeder Avenue. Long term impacts of sea level rise may be severe unless anticipated and mitigated.
Meteorological	Wildfire	57.7%	Mod	Mostly limited to the urban/rural edge and damage to residences, parks and some commercial buildings. Wildland-urban interface areas adjacent to large parks and natural areas will increase risk in a warming climate. Regional fires degrade air quality.

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

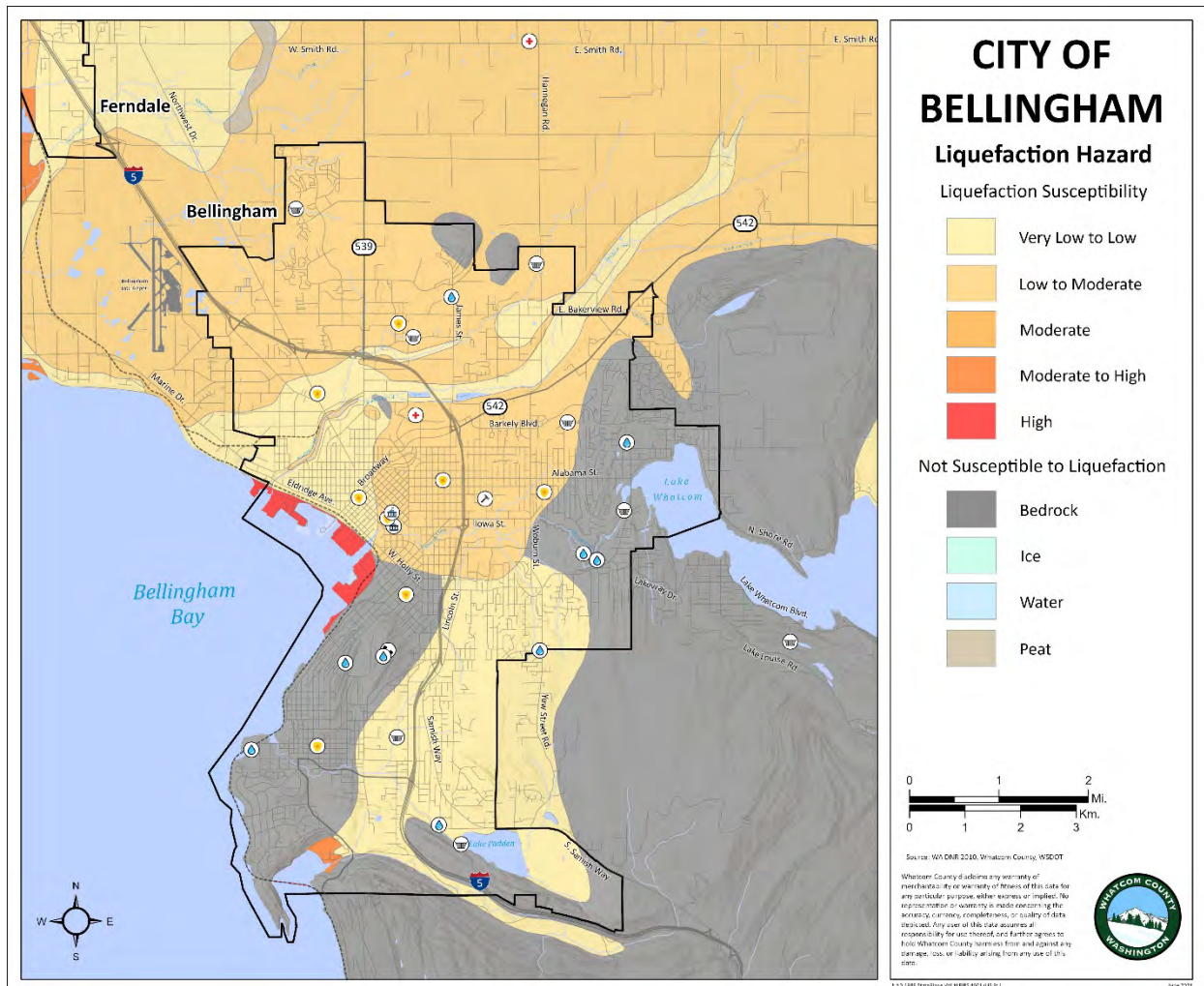


Natural Hazard Maps

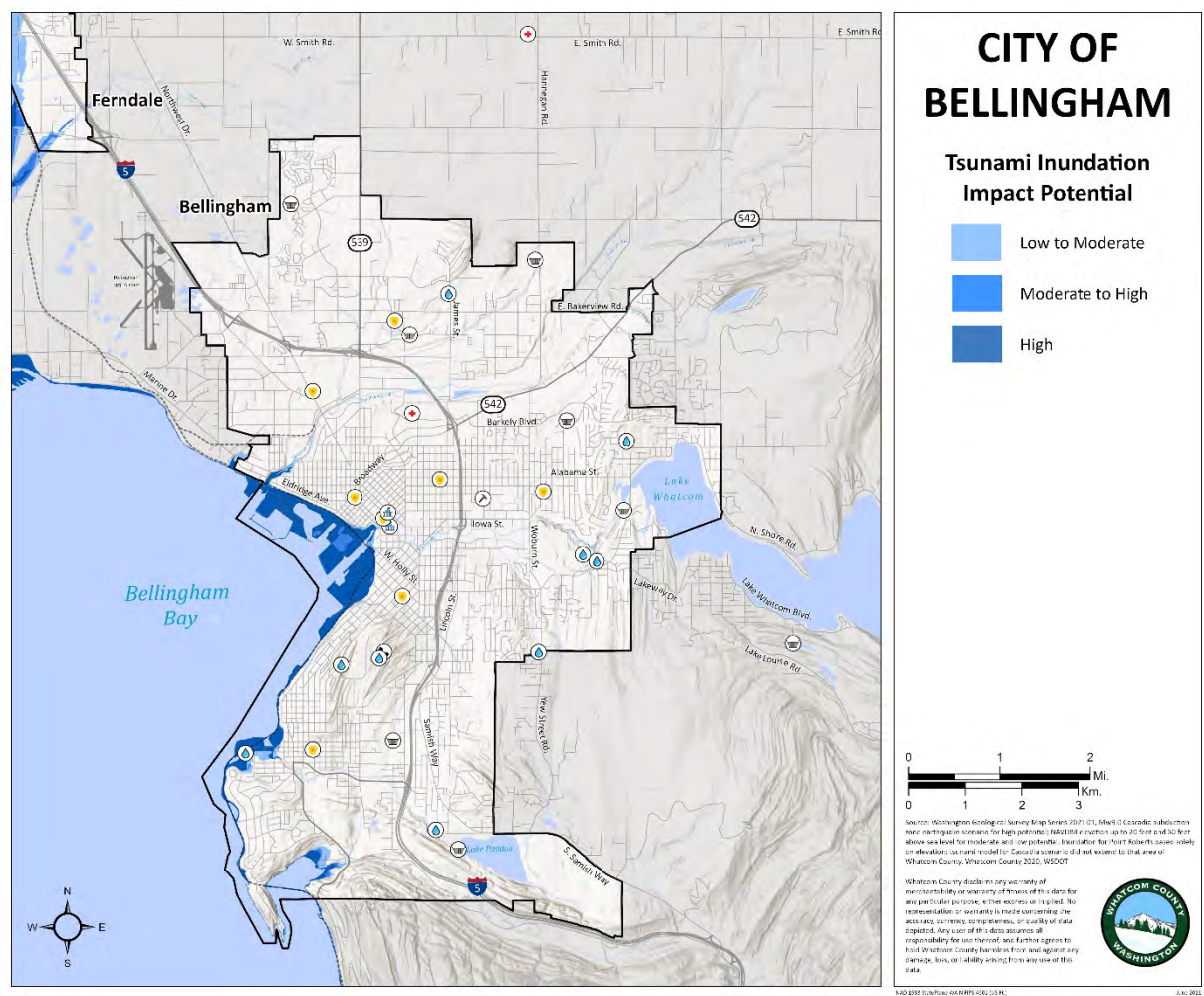
The following figures depict the natural hazards present within the jurisdiction.



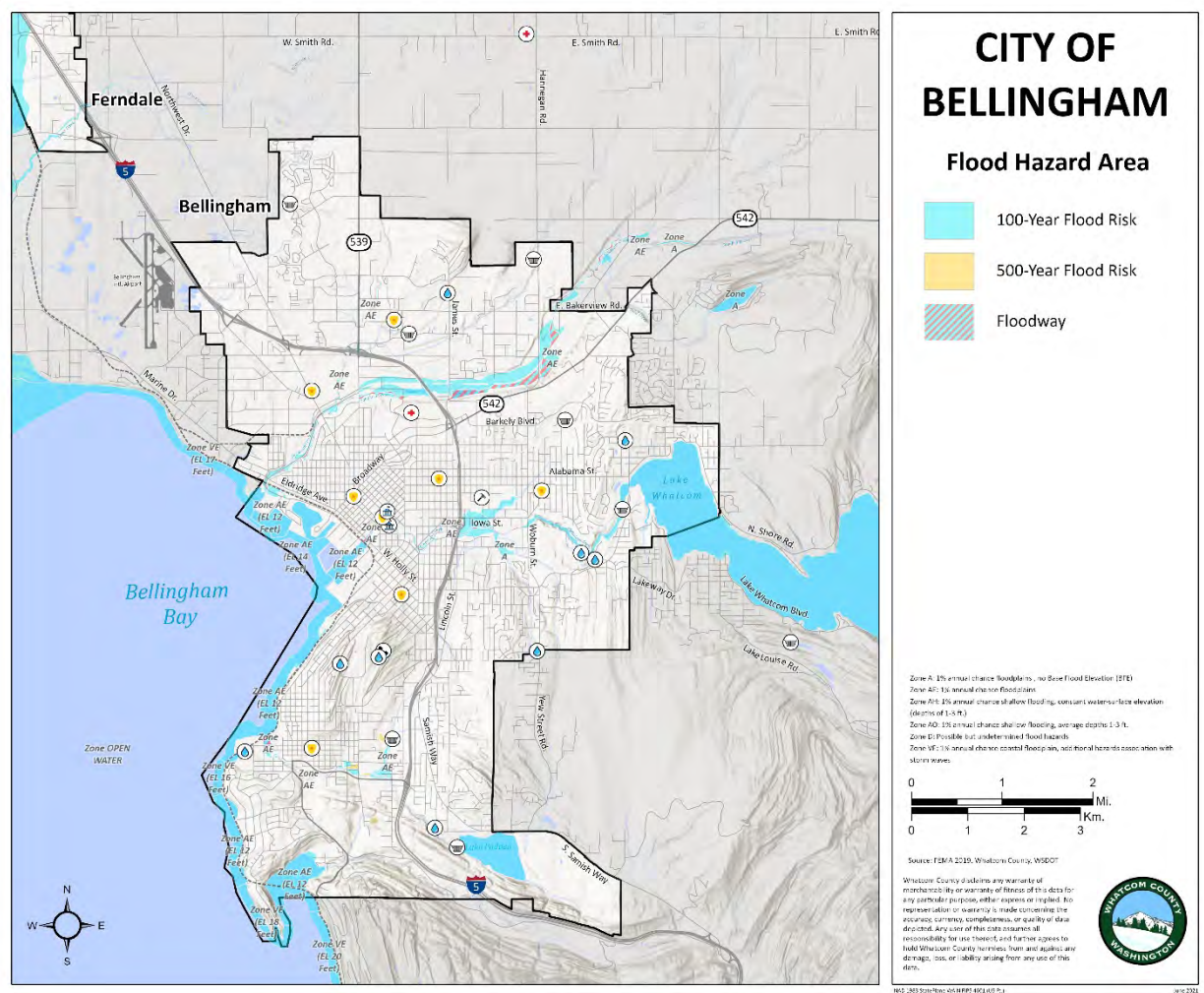
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



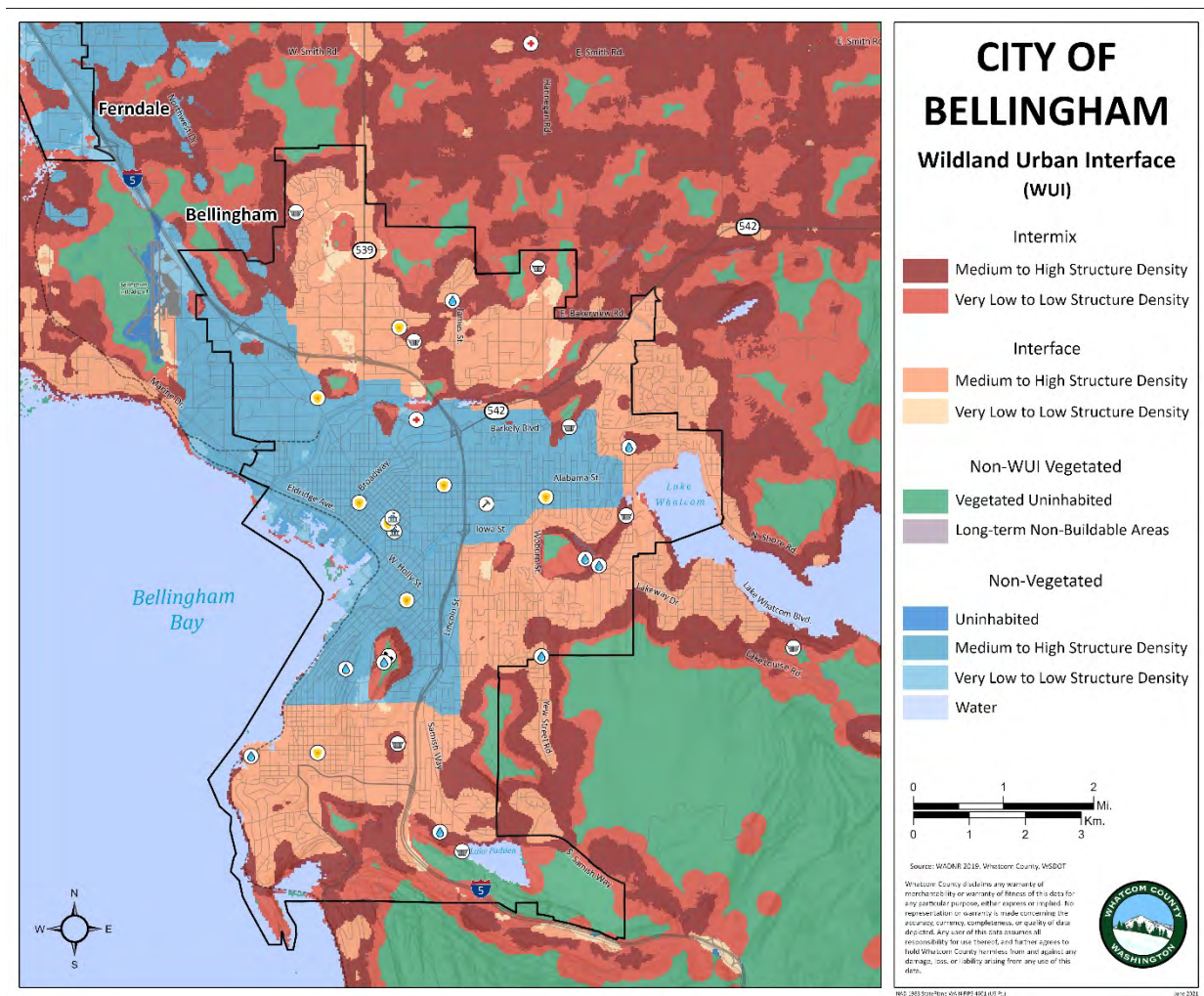
Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



Map of Bellingham tsunami inundation impact potential. The high impact potential zone is based upon Washington Geological Survey Map Series 2021-01, Mw9.0 Cascadia subduction zone earthquake scenario occurring at mean high tide. The moderate to high and the low to moderate impact potential areas are based upon elevation of up to 20 feet and 30 feet, respectively, above mean sea level (NAVD88). Inundation for Point Roberts is based solely on elevation; tsunami model for the Cascadia subduction zone scenario did not extend to Point Roberts.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.



City of Bellingham's Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Bellingham City Hall	EF	2	210 Lottie Street	\$33,962,612	Government offices
Police Headquarters	EF	3	505 Grand Avenue	\$13,251,745	
What-Comm dispatch	EF	3	620 Alabama Street	\$6,717,415	911 dispatch
Fire Station 1	EF	3	1800 Broadway	\$7,286,642	
Fire Station 2	EF	3	1590 Harris Avenue	\$2,396,622	
Fire Station 3	EF	3	1111 Billie Frank Junior Street	\$2,516,048	
Fire Station 4	EF	3	2306 Yew Street	\$1,993,010	
Fire Station 5	EF	3	3314 Northwest Avenue	\$2,101,186	
Fire Station 6	EF	3	4060 Deemer Road	\$2,396,622	
Smith Rd Medic Sta.	EF	3	858 East Smith Road	\$ 384,208	
WUECC	EF	3	3888 Sound Way		Shared City/County/Port facility
Municipal Court Bldg	EF	2	2014 C Street	\$10,492,727	
Sehome Communications Tower	LUS	3	Sehome Hill	\$1,742,009	
Post Point Plant	LUS/H MF	3	200 McKenzie Avenue	\$4,622,186	



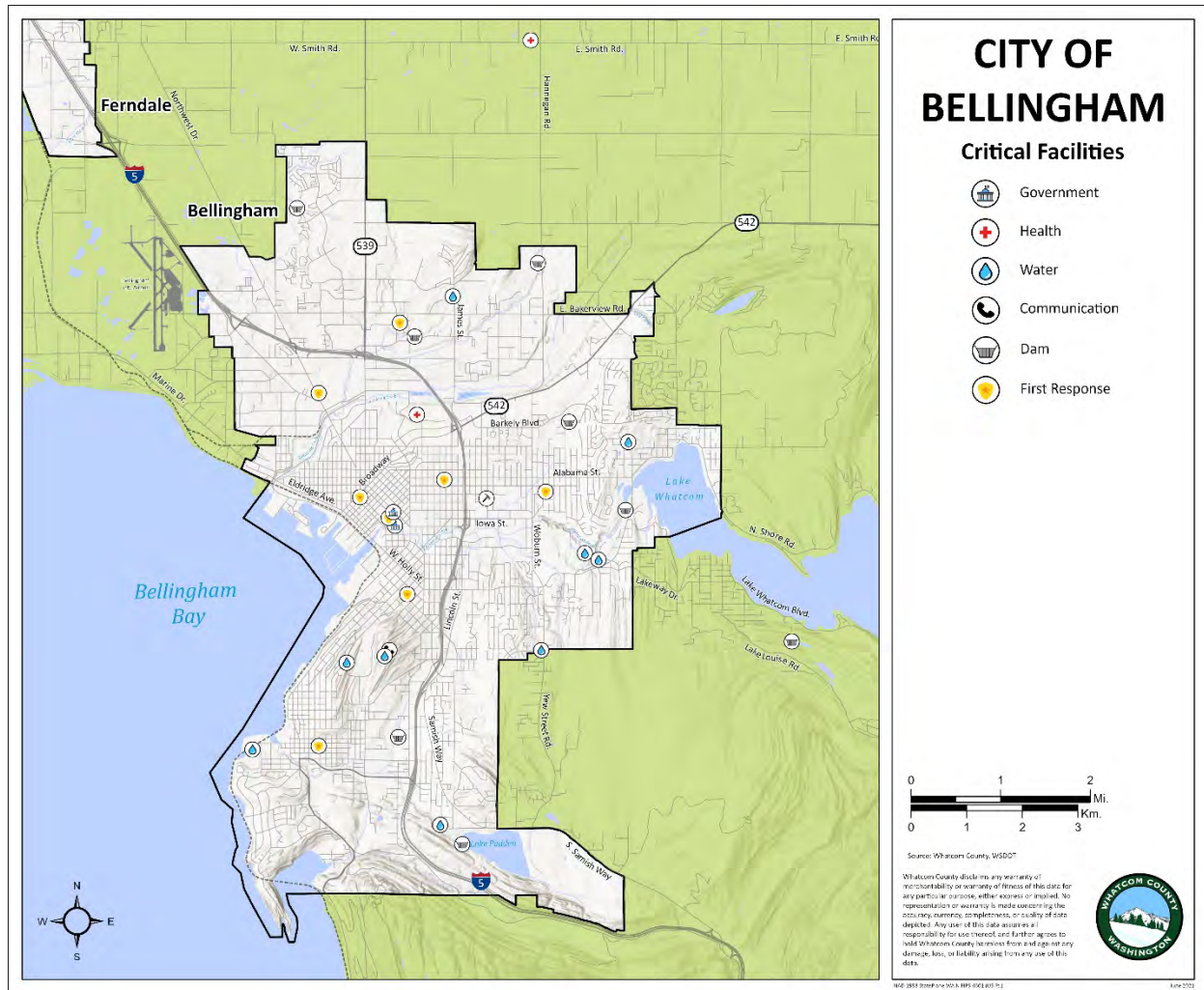
Public Works Central Operations Campus	EF	3	2221 Pacific Street	\$13,820,928	
Middle Fork NR Diversion Facility	HPL	1	Lat N48 46 15.7 Long W122 04 21.4	\$10,000,000	
Lake Whatcom Control Dam	HPL	3	Electric Avenue between 2107 and 2109	\$3,000,000	
Lake Padden Control Dam	EF	1	West Lake Padden outlet to Padden Creek	\$500,000	
Geneva Dam	EF	1	2647 Strawberry Shore Dr	\$500,000	
Hannegan Road Detention Dam	EF	1	Section SE1/4 08 Township 38N Range 03E	\$500,000	
Happy Valley Detention Dam	EF	1	Section 06 Township 3 7 Range 03	\$500,000	
Telegraph Detention Dam	EF	1	Section 18 Township 38N Range 03E	\$500,000	
St Clair Detention Dam	EF	1	Section 29W Township 38N Range 03E	\$500,000	
Horton Road Detention Dam	EF	1	Section 01 Township 38N Range 02E	\$500,000	
Water Treatment Plant	HMF	3	3201 Arbor Court	\$20,000,000	
Water Supply Storage Reservoirs	LUS	3	2500 Yew Street Road 231 Highland Drive Balsam Lane, near Big	\$2,000,000 \$2,000,000 \$2,000,000	



			Rock Garden 4185 James Street 3820 Broad Street 3201 Arbor Way Sehome Hill Arboretum, E Ivy Street	\$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000	
PeaceHealth St Joseph Medical Center	EF/HP L	3	2901 Squalicum Way		Essential facilities not owned or maintained by the City
Bellingham School District	HPL	2	14 Elementary 4 Middle Schools 4 High schools		Essential facilities not owned or maintained by the City

Facility Type: **EF** = Essential Facility; **HMF** = Hazardous Materials Facility; **HPL** = High Potential Loss; **LUS** = Lifeline
Utility System

Significance to community function: **1**=Moderate; **2**= High; **3** =Very High



Map of critical facilities identified by the City of Bellingham. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the City of Bellingham

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Bellingham City Hall	EF	2	1	1	0	0	0	0	0	0	0.33
Police Headquarters	EF	3	1	1	0	0	0	0	0	0	0.5
What-Comm dispatch	EF	3	1	1	0	0	0	0	0	0	0.5
Fire Station 1	EF	3	1	1	0	0	0	0	0	0	0.5
Fire Station 2	EF	3	1	0	0	0	0	0	0	1	0.5
Fire Station 3	EF	3	1	0	0	0	0	0	0	0	0.25
Fire Station 4	EF	3	1	1	0	0	0	0	0	0	0.5
Fire Station 5	EF	3	1	1	1	0	0	0	0	0	0.75
Fire Station 6	EF	3	1	1	0	0	0	0	0	1	0.75
Smith Rd Medic Sta.	EF	2	1	1	0	0	0	0	0	1	0.5
WUECC	EF	3	1	1	0	0	0	0	0	0	0.5
Municipal Court Bldg	EF	2	1	1	0	0	0	0	0	0	0.33
Sehome Communications Tower	LUS	3	1	0	0	0	0	0	0	0	0.25
Post Point Plant	HMF	3	1	0	0	1	0	0	0	1	1
Public Works Central Operations Campus	EF	3	1	1	0	0	0	0	0	0	0.5
Middle Fork NR Diversion Facility	HPL	1	1	0	0	0	0	0	0	0	0.08
Lake Whatcom Control Dam	HPL	3	1	0	0	0	0	1	0	1	0.66
Lake Padden Control Dam	EF	1	1	1	0	0	0	0	0	1	0.25
Geneva Dam	EF	1	1	0	0	0	0	0	0	0	0.08
Hannegan Road Detention Dam	EF	1	1	1	0	0	0	0	0	1	0.25
Happy Valley Detention Dam	EF	1	1	1	0	0	0	1	0	1	0.31



Telegraph Detention Dam	EF	1	1	1	0	0	0	0	0	1	0.25
St Clair Detention Dam	EF	1	1	1	0	0	0	0	0	1	0.25
Horton Road Detention Dam	EF	1	1	1	0	0	0	0	0	1	0.25
Water Treatment Plant	HMF	3	1	0	0	0	0	0	0	1	0.5
Water Supply Storage Reservoirs	LUS	3	1	1	0	0	0	0	0	1	0.75
PeaceHealth St Joseph Medical Center	EF/LUS/HPL	3	1	1	0	0	0	0	0	0	0.5
Bellingham School District schools (22)	HPL	2	1	1	0	0	0	0	0	0	0.33

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

City of Bellingham Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	<i>MMI V</i>	9.1%	6.8%	8.4%	3.1%	\$2 ²
	<i>MMI VI</i>	86.1%	93.2%	91.4%	93.8%	\$249 ¹
	<i>MMI VII</i>	-	-	-	3.1%	\$10
	<i>MMI VIII - IX</i>	-	-	-	-	-
	TOTAL	95.2%	100%	99.8%	100%	\$261
	Liquefaction					
	<i>Very Low to Low</i>	26.3%	26.7%	27.8%	18.8%	\$5 ²
	<i>Low to Moderate</i>	36.5%	39.4%	39.3%	43.8%	\$183 ¹
	<i>Moderate</i>	-	-	-	-	-
	<i>Moderate to High</i>	0.3%	0.1%	0.2%	-	-
	<i>High</i>	1.3%	0.1%	0.1%	-	-
	TOTAL	64.4%	66.3%	67.4%	62.6%	\$188
	Landslide					
	<i>Landslide Low</i>	0.04%	.04%	0.02%	-	-
	<i>Landslide Moderate</i>	0.02%	-	-	-	-



<i>Landslide High</i>	-	-	-	-	-
<i>Fan Low</i>	-	-	-	-	-
<i>Fan Moderate</i>	0.02%	0.01%	-	-	-
<i>Fan High</i>	0.05%	0.01%	-	-	-
<i>Mine Hazard</i>	4.4%	6.2%	7.06%	3.1%	\$0.2 ²
TOTAL	4.53%	6.26%	7.08%	3.1%	\$0.2
Volcanic Eruption					
<i>Case 1 Debris Flows</i>	-	-	-	3.1% ³	\$10 ^{2/3}
<i>Case 2 Debris Flows</i>	-	-	-	-	-
<i>Case M Flows</i>	-	-	-	3.1% ³	\$10 ^{2/3}
<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	3.1% ³	\$10 ^{2/3}
TOTAL				9.3%	\$30
Tsunami, Inundation Zone					
<i>Low to Moderate Inundation Potential</i>	0.4%	0.3%	0.2%	-	-
<i>Moderate to High Inundation Potential</i>	0.3%	2.7%	0.03%	-	-
<i>High Inundation Potential</i>	2.5%	-	0.7%	3.1%	\$5 ²
TOTAL	3.2%	3%	0.93%	3.1%	\$5



Hydrological Hazards	Flooding					
	100-year Flood	8.9%	1.4%	1%	9.4%	\$4 ²
	500-year Flood	0.07%	0.1%	0.1%	-	-
	Floodway	0.7%	0.3%	0.1%	-	-
	Undetermined (Zone D)	-	-	-	-	-
	TOTAL	9.67%	1.8%	1.2%	9.4%	\$4
Meteorological Hazards	Wildfire Zones					
	Interface Very Low-Low Structure Density	1.2%	0.4%	0.2%	-	-
	Interface Medium-High Structure Density	33.2%	39%	44.7%	18.8%	\$15 ²
	Intermix Very Low-Low Structure Density	8.9%	1.9%	1%	3.1%	\$2 ²
	Intermix Medium-High Structure Density	14.3%	8.5%	7.7%	28.1%	\$28 ²
	TOTAL	57.6%	49.8%	53.6%	50%	\$45

¹This value shows the total of 2020 Whatcom County parcel data appraised total value and community's critical facility assessed dollar value (found in the community's critical facilities list). The critical facility's assessed dollar value was used instead of the appraised total value when available.

²Shows the total assessed dollar value provided by the community in their critical facilities list. Does not include the appraised total values.

³Some critical facilities located in multiple hazard zones.



Status of Bellingham's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

1	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
5	Funding Source:	Local; State; FEMA; Private; Other
6	Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

General: All Hazards

G-a. Emergency preparedness education programs for schools

Bellingham Fire Department (BFD) conducted October fire and earthquake safety presentations in public and private school 2nd grade classrooms 2016-2019 (partnered with American Red Cross 2016-2018 on this program until they were no longer able to provide staffing). 2nd grade presentations were suspended in 2020 due to COVID-19 pandemic.

Lead Agency	School Districts/Office of Emergency Management (OEM)/Western Washington University (WWU)/Police/Fire
Funding Source	Local/Grants
Current Status	Ongoing

G-b. Drills, exercises in homes, workplaces, classrooms

Reassigned to Bellingham Fire Department Office of Emergency Management (OEM) promotes participation in the annual international ShakeOut drill to practice taking proper actions to save lives and reduce the risk of injury during an earthquake.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing



G-c. Public service announcements

Lead Agency	OEM /Police/Fire
Funding Source	Local
Current Status	Ongoing

G-d. Hazard "safety fairs"

OEM sponsored "GearUp!" an emergency preparedness fair in 2017 that offered community members the opportunity to learn about steps they can take to prepare for a future disaster by utilizing resources already at their disposal.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

G-e. Hazard conferences, seminars

OEM staff attend and host conferences and seminars as time and resources allow to learn and share lessons to enhance community preparedness.

Lead Agency	OEM
Funding Source	Local/State/Private/Other
Current Status	Ongoing

G-f. Hazard awareness weeks

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

G-g. Preparedness handbooks, brochures. Distribution of severe weather guides, homeowner's retrofit guide, etc.

In cooperation with Whatcom County, OEM makes available to the public throughout the year an all-hazards emergency preparedness guide, a variety of age-appropriate preparedness and awareness publications (activity books, comic books), and a graphic "two weeks ready" guide. Most recently, OEM developed and delivered tsunami awareness guides that feature evacuation routes and related details for shoreline inundation zones.

Lead Agency	OEM
Funding Source	Local/State/FEMA/Private



Current Status	Ongoing
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G-i. Annual correspondence with residents reminding them of the need to be hazard prepared.

The Public Works Department offers education programs to inform city workers to prepare 72-hour emergency prep kits. OEM issues annual reminders about fireworks safety and regulations in the City of Bellingham and contributes reminders to staff and community newsletters as resources allow.

Lead Agency	OEM /Public Works
Funding Source	Local
Current Status	Ongoing

Drought/heat wave

D-a. Assess Vulnerability to Drought Risk

The City's Water Shortage Contingency Plan includes recognition of drought risk as established by an assessment of regional climate conditions. The WSCP defines the levels of response to a range of drought conditions.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

D-b. Monitor Water Supply

The City maintains a water supply model of the City's water supply source, the Lake Whatcom Reservoir. Model data parameters include lake levels, annual precipitation, estimated evapotranspiration, water use trends.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

D-c. Plan for Drought

The City's Water Shortage Contingency Plan describes actions to be taken by the public in response to defined thresholds of reservoir capacity coupled with weather forecasts. The actions range from low water level alerts to a series of curtailment measures.



Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

D-d. Require Water Conservation During Drought Conditions

The Water Shortage Contingency Plan requires different levels of water use restrictions in response to various reservoir levels, precipitation and weather forecasts.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

D-e. Retrofit Water Supply Systems

Since 2016 the water meter program has successfully completed retrofit metering of 22,743 residential customers. Now all buildings within the City of Bellingham and most customers outside of the City are metered.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Completed

D-f. Enhance Landscaping and Design Measures to include drought tolerant native plants

Environmental restoration and park restoration projects include a mix of native plants some of which are drought tolerant. These programs are ongoing with multiple projects each year. Recent completion of The Native Plant Material Selection Guidelines includes a thorough discussion of plant stress due to climate change and options for maintaining resilient local plant communities in the face of climate challenges. Options include different approaches to assisted migration.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

D-g. Educate Residents on Water Saving Techniques

The City of Bellingham's Water Use Efficiency program provides education about water saving techniques to youth, households and businesses through a variety of programs and offerings, including property assessments, in-school education and community education campaigns.



Focus is placed on both indoor and outdoor water conservation techniques.

- Provides youth education through our 5th grade Water School program.
- Contracts education to K-12 in a partnership with ReSources, a local non-profit.
- Contracts with Community Energy Challenge to provide water assessments at homes, multifamily and commercial properties and to provide rebates for a fixture retrofit program.
- Provide outdoor summer watering education through advertising campaigns and an online pledge that provides customers with free tools to help with outdoor water conservation, such as hose-timers, efficient spray nozzles and moisture meters.
- Participate in the county-wide Whatcom Water Alliance which has a goal to coordinate water conservation practices and outreach throughout the county.
- Education materials accompany City sponsored events such as annual planning and participation in World Water Week events.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

Earthquake

EQ-a Adopt and Enforce Building Codes that increase earthquake resilience

The City has adopted the 2018 International Building Code with State and Local amendments. Each code cycle strengthens earthquake resilience as new studies, new technology, and new construction methods are devised. Fire enforces these codes through the new construction permitting process (average of 1,250 construction inspections per year) and performing approximately 500 inspections per year on existing buildings throughout the City. Planning and Community Development Services provides structural inspections for code compliance.

Lead Agency	Planning, Fire
Funding Source	Local
Current Status	Ongoing

EQ-c. Map and Assess Community Vulnerability to Seismic Hazards

A map of seismic vulnerable areas has been completed, is included in this report and is



available to the public.

Lead Agency	OEM /Public Works
Funding Source	Local
Current Status	Ongoing

EQ-d Conduct Inspections of Building Safety

Fire conducts an average of 1,250 new construction inspections per year and performing approximately 500 inspections per year on existing buildings (code enforcement inspections) throughout the City. Community Development Services conducts inspections of building structural compliance with earthquake codes.

Lead Agency	Planning, Fire
Funding Source	Local
Current Status	Ongoing

EQ-e. Protect Critical Facilities and Infrastructure

The City conducts routine assessment and maintenance of critical facilities and infrastructure to ensure they remain in good repair. The Sehome Hill Communications Tower, a critical facility was replaced in 2020.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

EQ-f. Implement Structural Mitigation Techniques

City buildings are earthquake retrofitted as funding allows.

Lead Agency	Planning/Public Works
Funding Source	Local
Current Status	Ongoing

EQ-g. Increase Earthquake Risk Awareness

Multiple City departments participate in state and local exercises, including Cascadia Rising exercise planning and execution of the exercise. Increased earthquake awareness and public participation has been facilitated by the CERT program.



Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

EQ-h. Conduct Outreach to Builders, Architects, Engineers, and Inspectors

Outreach to the development community is conducted through Pre-Application Conferences (average 100 conferences per year) and one-on-one meetings, emails, and telephone calls. Technical Advisory Bulletins with code updates are sent to builders and other members of the development community several times a year.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

Extreme Temperature

ET-a. Reduce Urban Heat Island Effect – Increase tree canopy in neighborhoods

Development and Critical Areas regulations require certain tree retention, and replacement during design and construction.

Lead Agency	Planning/Public Works
Funding Source	Local
Current Status	Ongoing

ET-b. Increase Awareness of Extreme Temperature Risk and Safety

Shelters for vulnerable populations have increased community awareness of extreme temperature risk and safety.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

ET-c. Assist Vulnerable Populations.

The City partners with and/or provides funding to several organizations that provide emergency overnight shelter, day center accommodations and safe camping for vulnerable populations.



The Bellingham Fire Department (BFD) responds to all types of medical emergency calls (fires, medical, public service, etc.) per year within the City limits. The City's Planning Department and BFD's Life Safety Division are involved in the review, approval, and inspection of homeless shelters, emergency shelters, and encampments.

Lead Agency	OEM /Planning/Police/Fire/Private
Funding Source	Local
Current Status	Ongoing

ET-d. Educate Property Owners About Freezing Pipes

Lead Agency	OEM /Fire/PW
Funding Source	Local
Current Status	Ongoing

Hail

HA-a. Increase Hail Risk Awareness

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

Flooding

F-a. Incorporate Flood Mitigation in Local Planning

The Bellingham Municipal Code and the Surface and Stormwater Comprehensive Plan address flood hazards, development standards and mitigation strategies.

Lead Agency	OEM /Public Works
Funding Source	Local/State/FEMA
Current Status	Ongoing

F-b. Form Partnerships to Support Floodplain Management



Bellingham Municipal Code for floodplain management is included in sections administered by both the Public Works Department and the Planning and Community Development Department. Interjurisdiction floodplain management is coordinated between the City of Bellingham, Whatcom County and the Washington State Department of Ecology.

Lead Agency	OEM /Public Works
Funding Source	Local
Current Status	Ongoing

F-c. Adopt and Enforce Building Codes and Development Standards

The Bellingham Municipal Code and the Surface and Stormwater Comprehensive Plan address flood hazards, development standards and mitigation strategies. Building codes and development standards meet FEMA standards. Planning and Community Development Department administers the Critical Areas Ordinance that includes frequently flooded areas which are areas that have an increased risk of flooding and that are an expansion of FEMA designated flood areas.

Lead Agency	Planning/Police/Fire
Funding Source	Local
Current Status	Ongoing

F-d. Improve Stormwater Management Planning

The Surface and Stormwater Comprehensive Plan was updated in 2020. Improvements to mapping and facility maintenance are part of the plan. Near-term sea-level rise impact analysis, funding obligations and needs, prioritization, conveyance capacity analysis, and a capital improvement plan are also included.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

F-e. Adopt Policies to Reduce Stormwater Runoff

The Surface and Stormwater Comprehensive Plan conditions all new buildings to minimize or be stormwater runoff neutral. A residence focused program in the Lake Whatcom watershed incentivizes actions that reduce stormwater runoff from individual parcels. Bellingham



Municipal Code includes sections on stormwater management. The 2017 Municipal Code update made Low Impact Development techniques required if feasible on a site.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

F-f. Improve Flood Risk Assessment

Hydrology model data are used to assess the impacts of new development, re-development and stream restoration projects on flood control and carrying capacity. Bellingham is a National Flood Insurance Program participating community. The Operations and Maintenance Plans and Emergency Action Plans for seven flood control dams are updated every 5-years. Ecology Dam Safety office performs inspections and receives records from the City every 5-years.

Lead Agency	Public Works/OEM
Funding Source	Local/Grants
Current Status	Ongoing

F-g. Improve Stormwater Drainage System Capacity

The Comprehensive Surface and Stormwater Plan includes analysis of stormwater infrastructure needs and projects. Projects are selected by committee based on needs analysis that considers risks, areas of growth, age of infrastructure, road projects, opportunities and other issues identified by stormwater staff.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

F-h. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures

The City's stormwater conveyance system is regularly maintained to clear debris and replace failing infrastructure to ensure it is fully functional. Stormwater crews perform routine maintenance and repair activities on all City owned drainage structures and conveyance pipes. Work crews video-inspect 267 total miles of mains, 15,066 drainage structures, and clean structures as required. The City meets or exceeds the requirements in our Western Washington Phase II Municipal Stormwater Permit. Additional inspections and maintenance is



also conducted on all flow control and bioretention facilities which includes nearly 150 rain gardens, 190 ponds and bioswales, and 5 regional detention facilities. City staff also assist in performing private facility inspections.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

F-i. Elevate or Retrofit Structures and Utilities

Utility facilities are sited with consideration of potential flooding impacts. Recent development of models that predict potential flooding due to sea level rise are also being used as guidance for utility planning in waterfront areas. Utilities located within either City or Federal designation with a flood potential are retrofitted, designed, and contracted to minimize the possibility of floodwaters from entering the system.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

F-j. Protect Infrastructure

Utilities located within either City or Federal designation with a flood potential are retrofitted, designed, and constructed to minimize the possibility of floodwaters from entering the system.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

F-k. Protect Critical Facilities

Critical facilities that are located within either City or Federal designation with a flood potential are retrofitted, designed, and constructed to minimize the possibility of floodwaters from entering the facility and damage caused by flooding.

Lead Agency	Planning/PW/Police/Fire
Funding Source	Local/Grants
Current Status	Ongoing



F-l. Construct Flood Control Measures

The City's flood control infrastructure includes 150 rain gardens, 190 ponds and bioswales, and 7 regional detention facilities throughout the city to capture and retain stormwater runoff. The combined stormwater facilities work in concert to lessen the impacts of localized and regional storm events. Flood control berm along the lower portions of Whatcom Creek. All new and redevelopment projects are subject to stormwater flow control requirements.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

F-m. Protect and Restore Natural Flood Mitigation Features

Seven stormwater regional detention facilities are built in natural floodways to increase the flood storage capacity of the natural system. These sites are regulated by the Critical Areas Ordinance and are included in wetland and riparian restoration and mitigation plans projects.

Lead Agency	Parks/Public Works/Planning
Funding Source	Local/Grants
Current Status	Ongoing

F-n. Preserve Floodplains as Open Space

Accomplished through the City's Critical Areas Ordinance, Frequently Flooded Areas section.

Lead Agency	Parks/Planning
Funding Source	Local/Grants
Current Status	Ongoing

F-o. Increase Awareness of Flood Risk and Safety

The City is a National Flood Insurance Program participating community.

Lead Agency	OEM/Parks/Public Works
Funding Source	Local
Current Status	Ongoing

F-p. Educate Property Owners about Flood Mitigation Techniques



The City is a National Flood Insurance Program participating community.

Lead Agency	Parks/ Public Works/OEM
Funding Source	Local
Current Status	Ongoing

Landslide/Erosion

ER-a. Map and Assess Vulnerability to Landslides and Erosion

The Critical Areas Ordinance defines and maps landslide hazard areas. No additional action has occurred.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

ER-b. Manage Development in Landslide and Erosion Hazard Areas

The Critical Areas Ordinance conditions development in Landslide and Erosion Hazard areas.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

ER-c. Promote or Require Site and Building Design Standards to Minimize Erosion Risk

The Critical Areas Ordinance and Subdivision Ordinance together require site designs to consider building with existing contours and minimizing recontouring. No new action taken.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

ER-d. Stabilize Erosion Hazard Areas

Public Works Natural Resources includes elements to stabilize banks and reduce erosion in all habitat restoration projects. The Parks & Recreation Department also designs park uplands and nearshore areas to withstand sea level rise and floodwaters to protect critical habitat areas that might otherwise be lose or eliminated during a natural disaster. Boulevard Park and Waypoint Park beach enhancement projects were designed for the upper end of predicted sea level rise,



including king tides and storm surges. These projects mitigate flood damage and erosion to uplands by providing natural nearshore environments capable of sustaining large storm events.

Lead Agency	Public Works/Parks
Funding Source	Local/Grants
Current Status	No action taken

ER-e. Increase Awareness of Erosion Hazards

A map of geological hazards is available to the public on the City's website and can be ordered.

Lead Agency	Public Works/OEM
Funding Source	Local
Current Status	Ongoing

Land Subsidence

SU-a. Map and Assess Vulnerability to Subsidence

A map of land areas at risk of subsidence events is a layer in City IQ, the City's publicly accessible property mapping database.

Lead Agency	Public Works
Funding Source	Local/Grants
Current Status	Ongoing

SU-b. Manage Development in High-Risk Areas

City zoning, building regulations, critical areas restrictions and the Comprehensive Plan manage development in all hazard areas.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

SU-c. Consider Subsidence in Building Design

Building codes regulate building foundation in light of the potential for stress from events such as subsidence.

Lead Agency	Planning
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Funding Source	Local
Current Status	Ongoing

SU-d. Monitor Subsidence Risk Factors

Changes in land elevations, slumps, street integrity, or other signs of subsidence are reported to City staff.

Lead Agency	Public Works
Funding Source	Local
Current Status	Ongoing

Lightning

L-a. Protect Critical Facilities and Equipment

Critical facilities and equipment receive ongoing maintenance.

Lead Agency	Public Works/Private/Planning
Funding Source	Local
Current Status	Ongoing

Severe Storm

SS-a. Increase Severe Storm Preparedness

The City participates in the annual severe storm preparedness meeting conducted by the Whatcom County Sheriff's Office Division of Emergency Management.

Severe Wind

SW-a. Adopt and Enforce Building Codes

Building codes require wind studies and engineered designs in response to wind analysis for development in designated high wind zones.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing



SW-b. Promote or Require Site and Building Design Standards to Minimize Wind Damage

Building codes require site specific analysis of land clearing proposals in high wind designated areas, to determine impacts on trees and structures in the immediate area. Temporary tent permits require prescribed amount of ballasting to prevent blow-over or damage from wind. Fire issues temporary tent permits and performs inspections on roughly 15 temporary tents per year.

Lead Agency	Planning/Fire
Funding Source	Local
Current Status	Ongoing

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

TSU-a. Map and Assess Vulnerability to Tsunami

The City of Bellingham participates in the Washington State Department of Emergency Management's Inner Coast Tsunami Workgroup that publishes tsunami inundation and current velocity maps that show the expected depth of water and the speed of the currents from an earthquake-generated tsunami, as well as tsunami pedestrian evacuation walk maps.

Lead Agency	OEM
Funding Source	Local/Grants
Current Status	Ongoing

TSU-b. Manage Development in Tsunami Hazard Areas

The City's Shoreline Master Program regulates development in Tsunami Hazard Areas.

Lead Agency	Planning
Funding Source	Local
Current Status	Ongoing

TSU-c. Increase Public Awareness of Tsunami Hazard



The City of Bellingham is a key stakeholder in Whatcom County Sheriff's Office Tsunami Action Plan and will actively prepare for, respond and participate in recovery from any tsunami threat. Public outreach events were delivered on tsunami awareness in 2019 and will resume post-COVID.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

Wildfire

WF-a. Map and Assess Vulnerability to Wildfire

City's Wildland-Urban Interface mapping is being performed in 2nd quarter 2021 by consultant as part of City's Urban Forest Management Plan. State DNR is also in the process of mapping and performing risk assessment in each county.

Lead Agency	Fire
Funding Source	Local
Current Status	Ongoing

WF-b. Create Defensible Space Around Structures and Infrastructure

Awaiting results of Wildland-Urban Interface mapping/risk assessment in order to target highest risk areas of City.

Lead Agency	OEM/Fire
Funding Source	Local
Current Status	Ongoing

WF-c. Participate in Firewise Program

Partnered with Conservation District's Wildfire Risk Reduction Program staff to identify vulnerable areas. Provided education materials to property owners in target area. Clark's Point is a Firewise site as of November 1st, 2019.

Lead Agency	Fire
Funding Source	Local
Current Status	Ongoing



WF-d. Educate Property Owners about Wildfire Mitigation Techniques

Property owner education included in Wildfire Risk Reduction and Firewise programs.

Lead Agency	Fire
Funding Source	Local
Current Status	Ongoing

Winter storms/Freezes

WW-a. Adopt and Enforce Building Codes

International and State Building Codes adopted by the City include snow load calculations and requirements for roofs.

Lead Agency	Planning/Fire
Funding Source	Local
Current Status	Ongoing

WW-b. Protect Buildings and Infrastructure

Public Work Facilities maintains all city government buildings to avoid weather incurred damage. Fire-Operations responds to all types of hazardous conditions and emergencies

Lead Agency	Public Works/Fire
Funding Source	Local
Current Status	Ongoing

WW-c. Reduce Impacts to Roadways

City Public Works applies icing prevention compounds to main city streets ahead of predicted winter snow storms, and freezing rain events.

Lead Agency	Public Works/DOT
Funding Source	Local/Grants
Current Status	Ongoing

WW-d Conduct Winter Weather Risk Awareness Activities



Efforts to provide shelters for vulnerable populations have increased community awareness of winter weather risks.

Lead Agency	OEM
Funding Source	Local/Grants
Current Status	Ongoing

WW-e. Assist Vulnerable Populations

Shelters have been provided for vulnerable populations.

Lead Agency	OEM/Police/Fire/Private
Funding Source	Local/Grants
Current Status	Ongoing

Multiple Hazards

MU-a. Assess Community Risk

City departments continue to reassess the most current information when planning response to hazard risks.

Lead Agency	OEM /Public Works
Funding Source	Local
Current Status	Ongoing

MU-b. Map Community Risk.

The City maintains maps of hazardous areas and conditions that are available to the public on the City website and hardcopy.

Lead Agency	OEM /Public Works
Funding Source	Local
Current Status	Ongoing

MU-c. Update Policies, Codes, Standards, Regulations, and Plans for all hazards included in this plan as needed

Lead Agency	Planning/Fire
Funding Source	Local
Current Status	Ongoing



MU-d. Adopt Development Regulations in Hazard Areas

Development in hazard areas is regulated by the Critical Areas Ordinance.

Lead Agency	Planning
Funding Source	Local
Current Status	Completed

MU-e. Limit Density in Hazard Areas

Comprehensive Plan updates may include evaluation of zoning including hazard conditions analysis for any contemplated zoning changes.

Lead Agency	Planning
Funding Source	Local
Current Status	No action taken

MU-f. Integrate Mitigation into Local Planning

The information and related data contained in the Natural Hazards Mitigation Plan regarding hazards, risks, vulnerability and potential mitigation potentially impacting City of Bellingham will be used as a tool when the City updates other plans and programs.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

MU-g. Strengthen Land Use Regulations

Washington State and Bellingham are national leaders in development and land use regulations.

Lead Agency	Planning/Public Works
Funding Source	Local
Current Status	Ongoing



MU-h. Adopt and Enforce Building Codes

State and City of Bellingham adopted the 2015 body of International Code Council (ICC) codes on July 1, 2016, including local Bellingham Municipal Code (BMC) amendments; then adopted 2018 ICC Codes with implementation date of February 1, 2021 (also with BMC amendments). Each code cycle strengthens resilience as new studies, new technology, and new construction methods are devised. Fire enforces these codes through the new construction permitting process (average of 1,250 construction inspections per year) and performing approximately 500 inspections per year on existing buildings throughout the City.

Lead Agency	Planning/Fire/Police
Funding Source	Local
Current Status	Ongoing

MU-i. Protect Infrastructure and Critical Facilities

Critical infrastructure and facilities are maintained regularly.

Lead Agency	Police/Fire
Funding Source	Local/Grants
Current Status	Ongoing

MU-j. Increase Hazard Education and Risk Awareness

Map Your Neighborhood has been in use by Bellingham since 1999. This network allows for residents to prepare to help their neighbors before help can arrive following a disaster, which will save lives.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing

MU-k. Improve Household Disaster Preparedness

Map Your Neighborhood has been in use by Bellingham since 1999. This network allows for residents to prepare to help their neighbors before help can arrive following a disaster, which will save lives.

Lead Agency	OEM
Funding Source	Local
Current Status	Ongoing



Bellingham Hazard Mitigation Strategy 2021-2025

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

City of Bellingham-Specific Hazard Mitigation Goals

Bellingham adds to these county-wide goals, the following community-specific mitigation planning goals:

- **Goal BELL-1.** Reduce the possibility of damages and losses due to coastal flooding caused by Sea Level Rise.
- **Goal BELL-2.** Reduce disproportionate natural hazard impact on vulnerable populations (e.g. elderly, low-income residents, disabled, health-compromised, rural/urban, and similar).
- **Goal BELL-3.** Collaborate with partners to create a countywide public safety radio system available to all public safety agencies for daily operations as well as emergency and disaster response.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. The City of Bellingham considered mitigation options related to earthquakes, tsunamis, and severe storms, especially those related to coastal flooding, because these hazards have the



potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Bellingham. Some options have already been implemented or are ongoing in Bellingham, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that the City of Bellingham has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial, and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property, and public welfare. Blaine is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority:	H (High); M (Medium); L (Low)
4	Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing
5	Funding Source:	Local; State; FEMA; Private; Other



Bellingham Identified Mitigation Actions 2021-2025

CITY OF BELLINGHAM							
IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Multiple Hazards	MU-1 Assess Community Risk - For all hazards included in this Plan	G6	OEM	M	O	Local	Staff
	MU-2 Map Community Risk – For all hazards included in this plan	G6	OEM	M	O	Local	Staff
	MU-3 Update Policies, Codes, Standards, Regulations, and Plans for all hazards included in this plan as needed	G1 G5	Planning/Fire	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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	MU-4 Enforce Codes, Standards, or Regulations for all hazards included in this Plan.	G1	Planning/Fire/Police	M	O	Local	Staff
	MU-5 Protect Infrastructure and Critical Facilities	G1 G5	Fire/Police/PW	H	O	Local	Staff + Capital Project Cost
	MU-6 Update Natural Hazard Early Warning Systems	G1 G2 B1 B2	OEM	M	O	Local	Staff
	MU-7 Create Local Funding Mechanisms for Hazard Mitigation	G1	Administration	L	M	Local	Staff
Education and Outreach all hazards	EO-1 Support Map Your Neighborhood, Community Emergency Response Training (CERT), and other community preparedness initiatives.	G1, G2, B2	Various, see notes	L	O	Local	\$50,000
	EO-2 Provide emergency preparedness education programs for schools, and community groups.	G2, B2	OEM	L	O	Local	\$50,000
	EO-3 Conduct drills, exercises in homes, workplaces, classrooms	G2, B2	OEM	L	O	Local	\$50,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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	EO-4 Deliver Public Service Announcements to the community	G2, B2	OEM	L	O	Local	\$125,000
	EO-5 Host or attend hazard safety fairs, conferences, seminars.	G2, B2	OEM	L	O	Local	\$15,000
	EO-6 Sponsor hazard awareness weeks	G2, B2	OEM	L	O	Local	\$15,000
	EO-7 Distribute risk awareness and emergency preparedness handbooks, brochures, severe weather guides, homeowner's retrofit guide, etc.to the community.	G2, B2	OEM	L	O	Local	\$50,000
	EO-8 Provide information for regular newspaper articles	G2	OEM	L	O	Local	Staff +\$1,000
	EO-9 Provide annual correspondence with residents reminding them of the need to be hazard prepared.	G2, B2	OEM	L	O	Local	\$20,000
Dam/Levee Failures	DL-1 Update early warning notification list as needed.	G1	Public Works/OEM	M	O	Local	Staff
Drought	D-1 Monitor Water Supply	G6	Public Works	M	O	Local	Staff
	D-2 Implement Drought Contingency Plan when needed	G1	Public Works	L	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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	D-3 Develop/Implement plant resiliency plan	G3	PWNR, Parks	L	O	Local	Staff +\$10,000
	D-4 Ongoing -- Educate Residents on Water Saving Techniques	G2	Public Works	L	O	Local	Staff +\$10,000
Earthquake	EQ-1 Provide Information on Structural and Non-Structural Retrofitting	G1 G2	Planning	L	M	Local	Staff +\$10,000
	EQ-2 Implement Structural Mitigation Techniques, building retrofits.	G1 G2	Planning	L	M	Local	Staff +\$10,000
Extreme Temperatures	ET-1 Reduce heat impacts, increase shade	G1 G4 B2	Plan PW	L	S	Local	\$20,000
	ET-2 Assist Vulnerable Populations, provide shelters and access to shade	G2, B2	OEM/Fire/Police/PW	L	O	Local	\$1,000,000
Flooding	FL-1 Consider policy response to Sea Level Rise	G1, B1	Planning	L	M	Local	Staff
	FL-2 Implement projects of the Surface and Stormwater Comprehensive Plan	G1 G3	PWNR	M	O	Local Grants	\$1,500,000
	FL-3 Maintain Partnerships to Support Floodplain Management	G4	Public Works	L	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Landslides/ Erosion	LE-1 Assess impacts of Sea Level Rise on marine bluff stability	G1	Planning	L	O	Local	Staff +\$12,000
Land Subsidence	LS-1 Monitor Subsidence Risk Factors	G1	Public Works	M	O	Local	Staff
Lightning	L-1 Protect Critical Facilities and Equipment	G1	Planning	M	O	Local	Staff +Capital Project Cost
Severe Wind	SW-1 Retrofit Residential Buildings	G1	BHA	L	M	Local	Staff +Project Cost
	SW-2 Retrofit Public Buildings and Critical Facilities	G1	Public Works	L	M	Local	Staff + Project Cost
Tsunami	TSU-1 Include Sea Level Rise in Tsunami Risk Assessment	G2	PWNR	L	S	Local	Staff
	WF-1 Participate in Firewise program	G1 G2 G4	Fire	M	O	Local	\$100,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Wildfires	WF-2 Create Defensible Space Around Structures and Infrastructure	G1	Fire	M	S	Local	Staff + Project Cost
Winter Weather	WW-1 Reduce Impacts to Roadways	G1, G5	Public Works	L	O	Local	Staff
	WW-2 Assist Vulnerable Populations	B2	Various	M	O	Local	Staff + \$1,500,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Bellingham Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Bellingham						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
MULTIPLE HAZARDS						
MU-1. Assess Community Risk - for all hazards included in this Plan						
MU-2. Map Community Risk – For all hazards included in this plan						
MU-3. Update Policies, Codes, Standards, Regulations, and Plans for all hazards included in this plan as needed						
MU-4. Enforce Codes, Standards, or Regulations for all hazards included in this Plan.						
MU-5 Protect Infrastructure and Critical Facilities						
MU-6 Update Natural Hazard Early Warning Systems						
MU-7 Create Local Funding Mechanisms for Hazard Mitigation						
<i>Add Addition Actions as Needed</i>						
EDUCATION AND OUTREACH ALL HAZARDS						
EO-1 Support Map Your Neighborhood, Community Emergency Response Training (CERT), and other community preparedness initiatives.						



EO-2 Provide Emergency preparedness education programs for schools, and community groups.						
EO-3 Conduct drills, exercises in homes, workplaces, classrooms.						
EO-4 Deliver public service announcements to the community.						
EO-5 Host or attend hazard safety fairs, conferences, seminars.						
EO-6 Sponsor hazard awareness weeks.						
EO-7 Distribute risk awareness and preparedness handbooks, brochures, severe weather guides, homeowner's retrofit guide, etc.to the community.						
EO-8 Provide information for regular newspaper articles						
EO-9 Provide annual correspondence with residents reminding them of the need to be hazard prepared.						
<i>Add Addition Actions as Needed</i>						
DAM/LEVEE FAILURES						
DL-1 Update early warning notification list as needed.						
<i>Add Addition Actions as Needed</i>						
DROUGHTS/HEAT WAVES						
D-1 Monitor Water Supply						
D-2 Implement Drought Contingency Plan when needed						
D-3 Develop/Implement plant resiliency plan						
D-4 Ongoing -- Educate Residents on Water Saving Techniques						



Add Addition Actions as Needed						
EARTHQUAKES						
EQ-1 Provide Information on Structural and Non-Structural Retrofitting						
EQ-2 Implement Structural Mitigation Techniques, building retrofits.						
Add Addition Actions as Needed						
EXTREME TEMPERATURE						
ET-1 Reduce heat impacts, increase shade						
ET-2 Assist Vulnerable Populations, provide shelters and access to shade						
Add Addition Actions as Needed						
FLOODING						
FL-1 Consider policy response to Sea Level Rise						
FL-2 Implement projects of the Surface and Stormwater Comprehensive Plan						
FL-3 Maintain Partnerships to Support Floodplain Management						
Add Addition Actions as Needed						
LANDSLIDES/EROSION						
LE-1 Assess impacts of Sea Level Rise on marine bluff stability						
LAND SUBSIDENCE						
LS-1 Monitor Subsidence Risk Factors						
Add Addition Actions as Needed						



LIGHTNING						
L-1 Protect Critical Facilities and Equipment						
Add Addition Actions as Needed						
SEVERE WIND						
SW-1 Retrofit Residential Buildings						
SW-2 Retrofit Public Buildings and Critical Facilities						
Add Addition Actions as Needed						
TSUNAMI						
TSU-1 Include Sea Level Rise in Tsunami Risk Assessment						
Add Addition Actions as Needed						
WILDFIRES						
WF-1 Participate in Firewise program						
WF-2 Create Defensible Space Around Structures and Infrastructure						
Add Addition Actions as Needed						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WW-1 Reduce Impacts to Roadways						
WW-2 Assist Vulnerable Populations						
Add Addition Actions as Needed						



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CITY OF BLAINE

Contact Information

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(360) 332-8311

Approving Authority

Blaine City Council
435 Martin St., Ste 3000, Blaine, WA 98230
(360) 332-8311

Planning Process

Beginning in late February 2021, City of Blaine staff began reviewing the content within their section of the plan. Regular meetings were attended with the county and other cities to ensure the revision and updating process was on schedule. Staff revisions and updates were put into a new template provided by Dr. Rebekah Paci-Green. The City provided opportunity for public input on the edits, and kept the community apprised of the process through regular postings on social media and in the local newspaper.

Key Contributor List

- Stacie Pratschner, Community Development Services Director
- Stacy Clauson, Community Planner II
- Michael Jones, City Manager

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. The City of Blaine is a community fully planning under the Growth Management Act, and this information and related data on natural hazards potentially impacting the City will be used as a tool when the City updates other plans and programs, such as the following:

- Blaine Comprehensive Plan
- Blaine Municipal Code:
 - Critical Areas Ordinance
 - Zoning bulk and dimensional standards
- Capital Improvement Plan
- Transportation Improvement Plan



- Water Resource Inventory Area planning
- General Sewer Systems Plan

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for Blaine

The City of Blaine's communication strategy concerning hazards includes social media postings; partnerships with the Chamber of Commerce and other community groups; and coordination with partner agencies to provide information and provide a platform for concerns.



Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.		Whatcom Unified Emergency Operations Center participates in the CERT program. Blaine residents are part of the Mt Baker chapter of Red Cross.
Ongoing public education or information programs	Yes,	Blaine is a part of the Whatcom Water Alliance which educates residents about outdoor water conservation. Blaine participates in the Great Shakeout (Earthquake preparedness drill) on an every-other-year basis.
School-related programs for natural hazard safety	No	Blaine School District practices routine drills in the classroom.
StormReady certification	No	Whatcom County is a StormReady certified county.
Firewise Community certification	No	Blaine does not have any Firewise sites.
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		



Presence of Hazards and their Impacts in Blaine

The City of Blaine has grown by roughly 700 people since the 2016 plan was first released. This growth is seen mainly in the Semiahmoo Uplands and East Blaine.

Since the last NHMP update, the City of Blaine has experienced impacts (and in some cases loss) of public infrastructure due to winter storm events. This includes the damage to the road on Semiahmoo Spit; and, damages to the shoreline at Marine Park.

Blaine takes the hazard areas described in this plan into consideration when making development permit decisions. The City, as a community fully planning pursuant to the Growth Management Act, employs best available science in the application of critical areas regulations; stormwater management; and, adopts by reference the most recent versions of the International Building Code.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Blaine's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	65.6%	High	Moderate to high risk. Strong shaking expected on Semiahmoo Spit and Drayton Harbor Rd, as well as near the Hwy 543 US-Canada border crossing. Moderate shaking expected in the higher density residential neighborhoods of Blaine west of I5.
	Liquefaction	65.1%	Unknown	Seismically-sensitive soils present.
	Landslide	0.07%	Moderate	
	Volcano	0%	Low	The area is at risk of ash fall, with potential damage or disruptions to buildings, transportation, air quality, and water and wastewater.
	Tsunami	7.2%	High	Some areas within the city limits are subject to Tsunami inundation. The Semiahmoo Spit development, the Wharf District (Port of Bellingham Marina, Milholin Drive and Marine Drive), and some residential areas west of Peace Portal Drive are within hazard areas. Dakota Creek presents inundation risks as the Tsunami water can travel back up the creek channel.
	Mine Hazards	0%		N/A
Hydro-logical	100-Year Flood	20.4%	Low	Dakota Creek presents a flooding hazard. Areas within the city limits are subject to tidal flooding.
	500-Year Flood	0%		



Meteorological	Wildfire	45.1%	Moderate	Outlying homes in the East Blaine and Semiahmoo neighborhoods are in wooded areas, which can be at risk to seasonal wildland fire danger.
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Severity Scale: **None** = no impact to community function

Low = minor degradation of community functions, not widespread

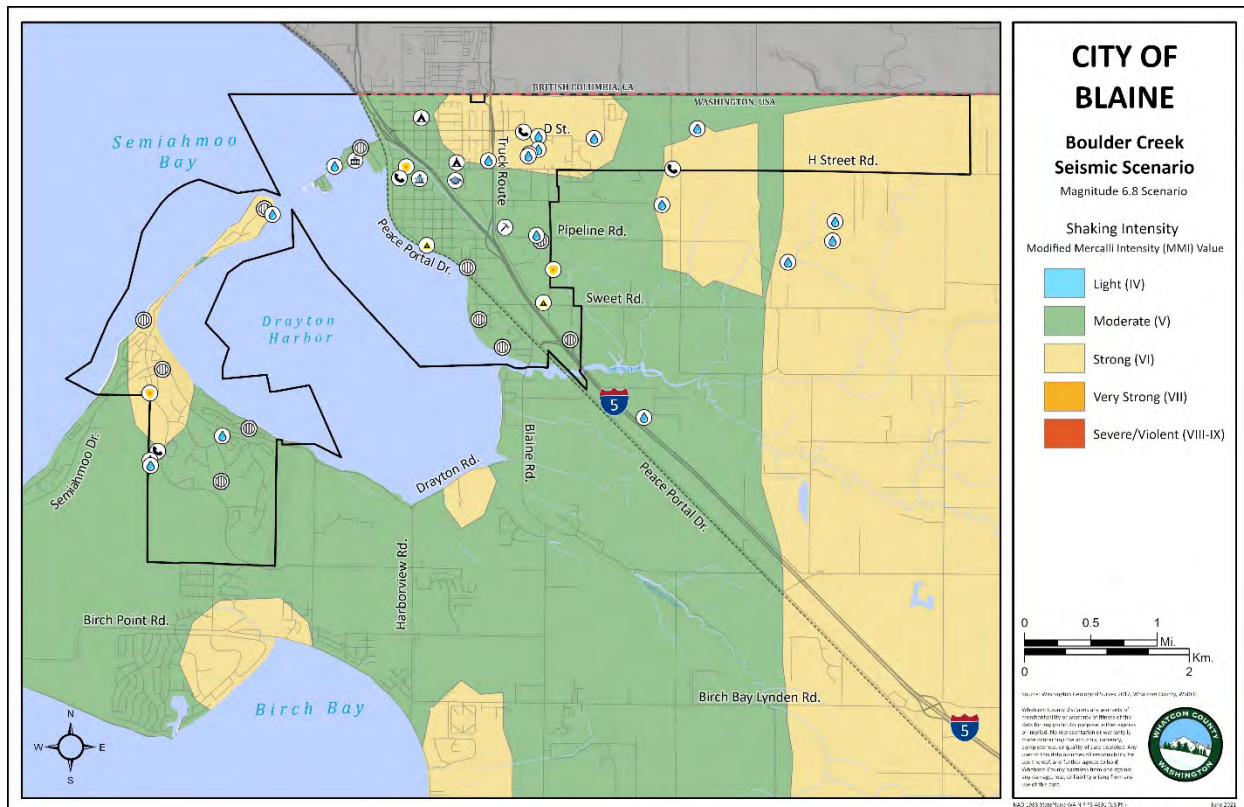
Moderate = moderate degradation over multiple weeks or widespread

High = degradation or loss over many weeks, widespread

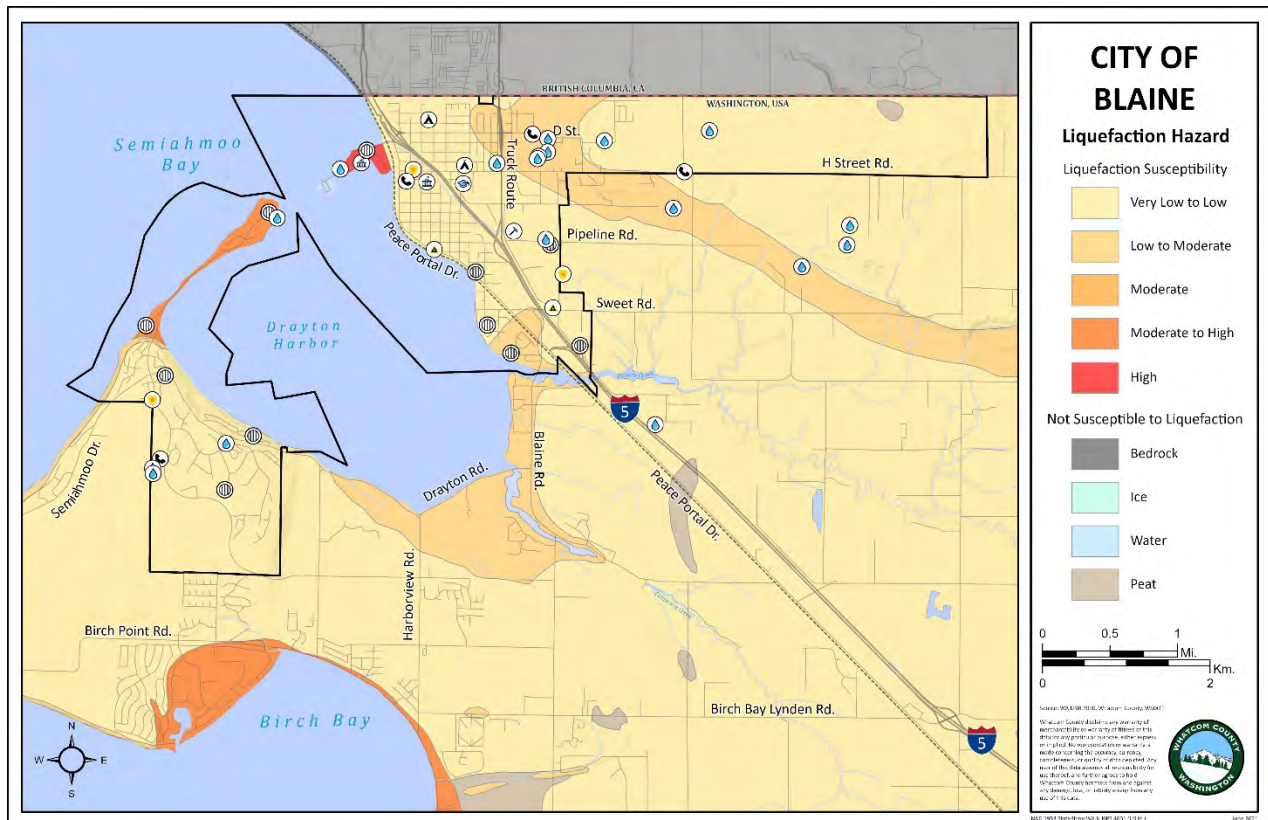


Natural Hazard Maps

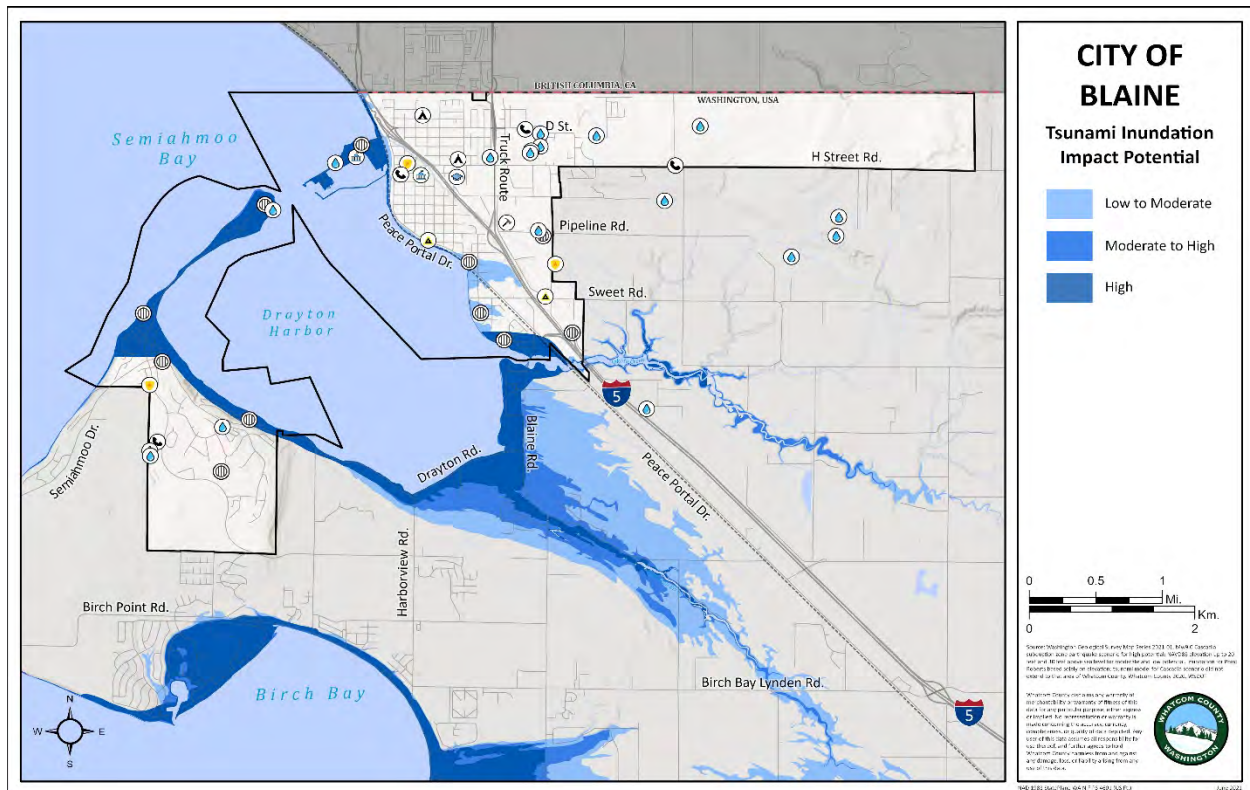
The following figures depict the natural hazards present within the jurisdiction.



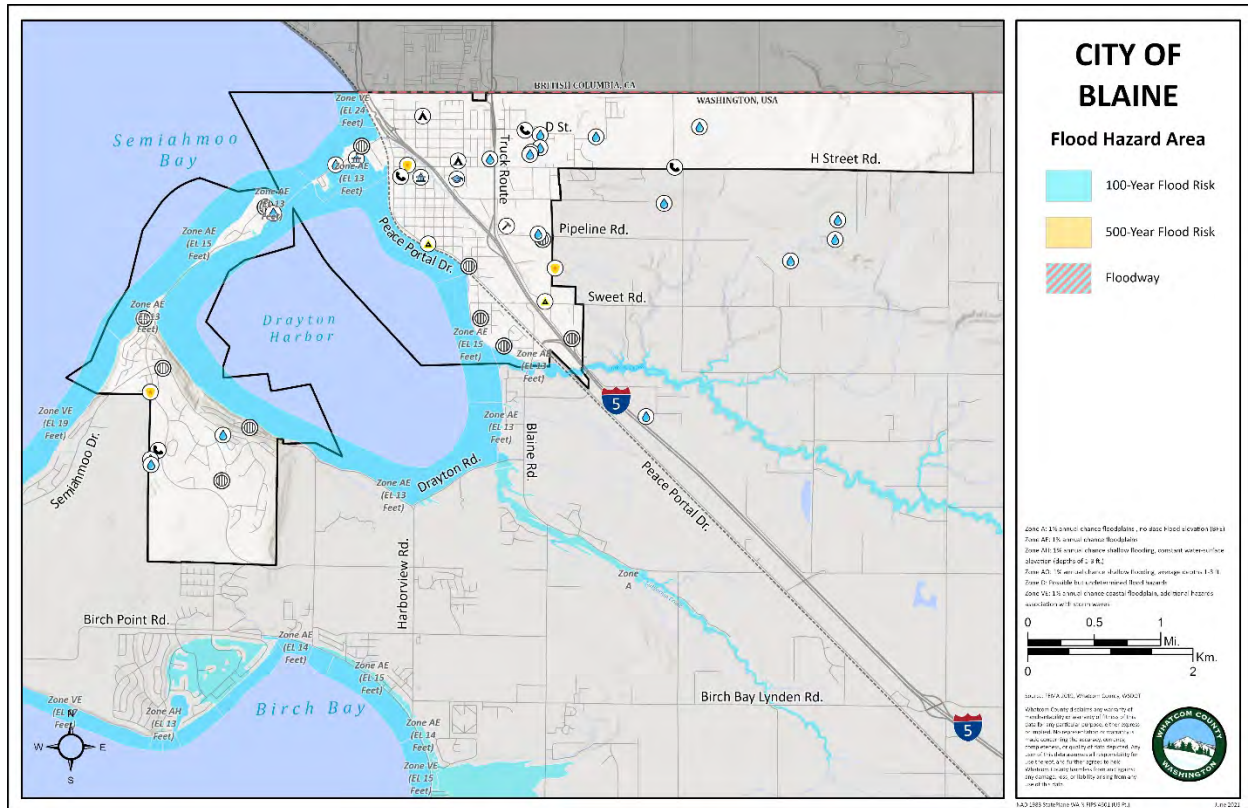
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



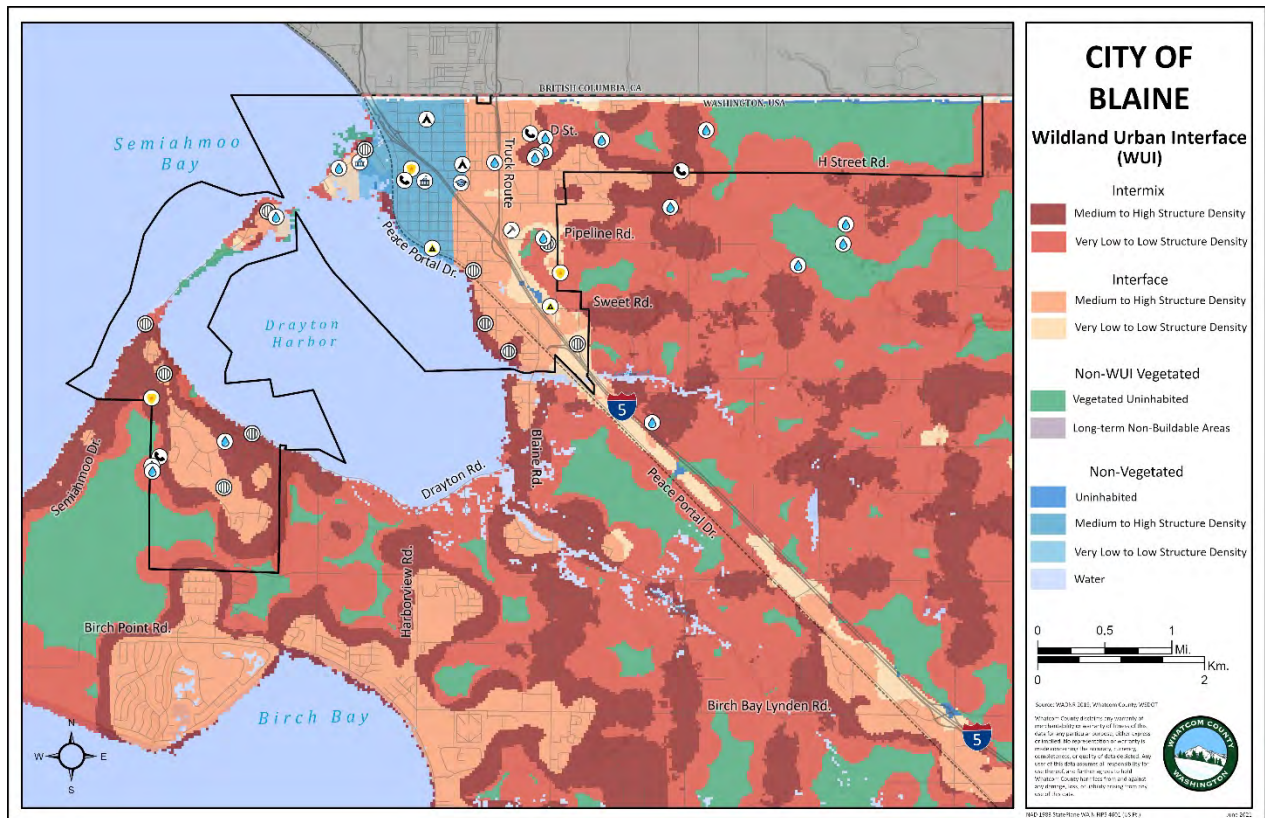
Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



Map of Blaine tsunami inundation impact potential. The high impact potential zone is based upon Washington Geological Survey Map Series 2021-01, Mw9.0 Cascadia subduction zone earthquake scenario occurring at mean high tide. The moderate to high and the low to moderate impact potential areas are based upon elevation of up to 20 feet and 30 feet, respectively, above mean sea level (NAVD88). Inundation for Point Roberts is based solely on elevation; tsunami model for the Cascadia subduction zone scenario did not extend to Point Roberts.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.



City of Blaine Critical Facility List

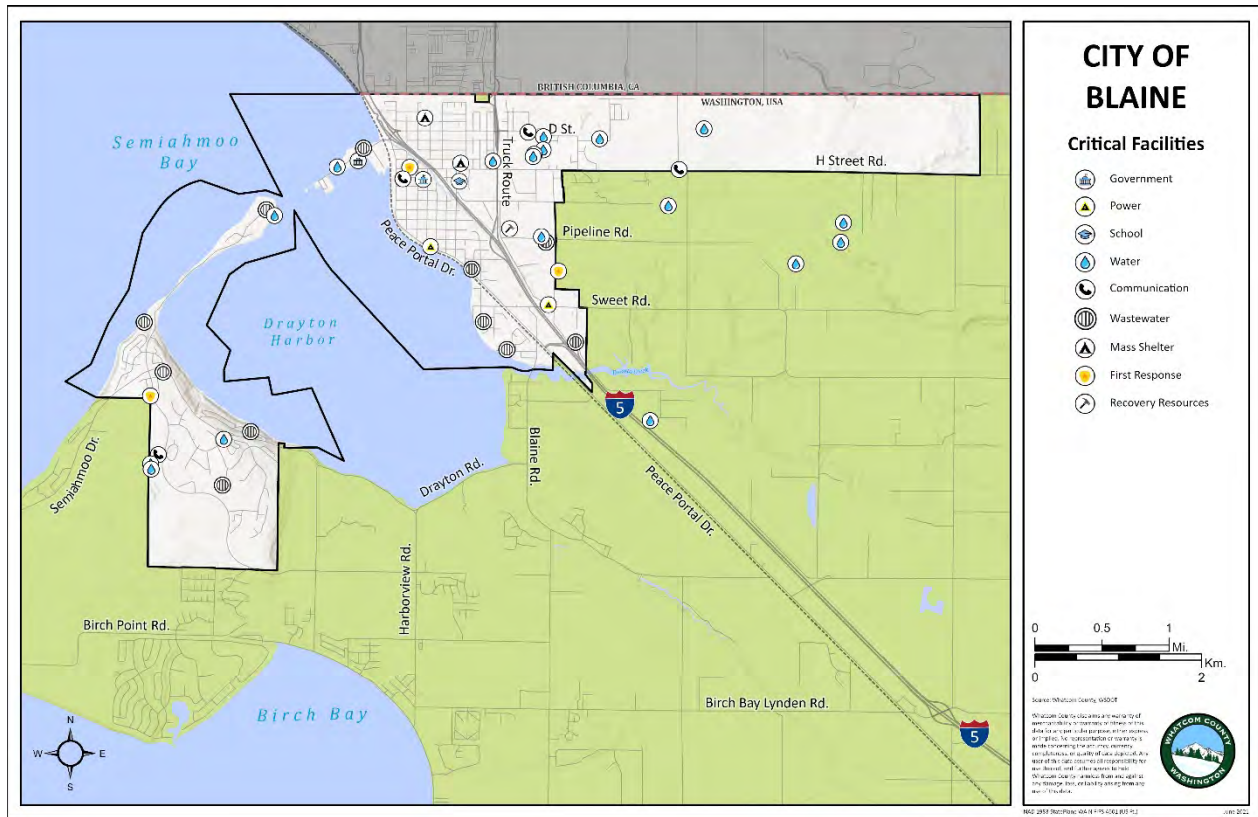
Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
AT&T (US/Canada fiber optic vault)	LUS	2	1715 D Street		Communications
Blaine City Hall	EF	1	435 Martin		Government
Blaine Community Center	EF	1	763 G Street		EOC
Blaine Lighthouse Point Water Reclamation Facility	LUS	2	272 Marine Drive		Water
Blaine Police Department	EF	3	322 H Street		Law Enforcement
Blaine Public Works	EF	3	1200 Yew Street		Emergency Services
Cascade Natural Gas Facility	LUS	2	1400 blk. Peace Portal Way		Utilities-Power
Elementary School - Dist. 503	EF	1	Refer to WC GIS Data Layer		Evacuation Center
Good Samaritan Rest Home	EF	1	456 C Street		Evacuation Center
Lift Stations	LUS	2	9 Lift Stations Total		Sewer
Nextel/AT&T Wireless	LUS	2	8800 Blk Semiahmoo Parkway		Communications
Nextel/FARS Repeater	LUS	2	9800 blk Harvey Road		Communications
Port of Bellingham	EF	3	250 Marine Drive		Government
Puget Power	LUS	2	Sweet Road & W. of Odell Road		Power
Pump Station	LUS	2	4 Pump Stations		Sewer



			Total		
Reservoir Tanks	LUS	2	5 Reservoirs Total		Water
Verizon Central Office	LUS	2	259 Martin Street		Communications
Well Head	LUS	2	7 Well Heads Total		Water
Whatcom County Fire District 21	EF	3	1510 Odell Road		Fire Station
Whatcom County Fire District 21	EF	3	9001 Semiahmoo Parkway		First Station

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Map of critical facilities identified by the City of Blaine. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the City of Blaine

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.

Critical Facilities Ranking Table



Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
AT&T (US/Canada fiber optic vault)	LUS	2	1	1	0	0	0	0	0	1	0.4
Blaine City Hall	EF	1	1	0	0	0	0	0	0	0	0.07
Blaine Community Center	EF	1	1	1	0	0	0	0	0	0	0.13
Blaine Lighthouse Point Water Reclamation Facility	LUS	2	1	1	0	1	0	0	0	1	0.67
Blaine Police Department	EF	3	1	0	0	0	0	0	0	0	0.2
Blaine Public Works	EF	3	1	1	0	0	0	0	0	1	0.6
Cascade Natural Gas Facility	LUS	2	1	1	0	0	0	0	0	0	0.27
Elementary School - Dist. 503	EF	1	1	1	0	0	0	0	0	0	0.13
Good Samaritan Rest Home	EF	1	1	0	0	0	0	0	0	0	0.07
Lift Stations	LUS	2	1	1	0	1	0	0	0	1	0.67
Nextel/AT&T Wireless	LUS	2	1	1	0	0	0	0	0	1	0.4
Nextel/FARS Repeater	LUS	2	1	1	0	0	0	0	0	1	0.4
Port of Bellingham	EF	3	1	1	0	1	0	0	0	1	1
Puget Power	LUS	2	1	1	0	0	0	0	0	1	0.4
Pump Station	LUS	2	1	1	0	1	0	0	0	1	0.67
Reservoir Tanks	LUS	2	1	1	0	0	0	0	0	0	0.27
Verizon Central Office	LUS	2	1	1	0	0	0	0	0	0	0.27
Well Head	LUS	2	1	1	0	0	0	0	0	1	0.4
Whatcom County Fire District 21	EF	3	1	0	0	0	0	0	0	1	0.4



Whatcom County Fire District 21	EF	3	1	0	0	0	0	0	0	1	0.4
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Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

	City of Blaine Exposure to Natural Hazards					
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	MMI V	40.8%	66.2%	66.9%	61.4%	\$90
	MMI VI	24.8%	33.1%	32.8%	38.6%	\$5
	MMI VII	-	-	-	-	-
	MMI VIII - IX	-	-	-	-	-
	TOTAL	65.6%	99.3%	99.7	100%	\$95
	Liquefaction					
	Very Low to Low	55.3%	81.5%	79.6%	68.2%	\$48
	Low to Moderate	7.2%	15.9%	15.4%	18.2%	\$3
	Moderate	-	-	-	-	-
	Moderate to High	1.9%	1.5%	4.5%	6.8%	-
	High	0.7%	0.6%	0.3%	6.8%	\$44
	TOTAL	65.1%	99.5%	99.8%	100%	\$95
	Landslide					
	Landslide Low	-	0.2%	-	-	-
	Landslide Moderate	-	-	-	-	-
	Landslide High	0.06%	-	-	-	-
	Fan Low	0.01%	0.01%	-	-	-
	Fan Moderate	-	-	-	-	-



	<i>Fan High</i>	-	-	-	-	-
	<i>Mine Hazard</i>	-	-	-	-	-
	TOTAL	0.07%	0.21%	-	-	-
	Volcanic Eruption					
	<i>Case 1 Debris Flows</i>	-	-	-	-	-
	<i>Case 2 Debris Flows</i>	-	-	-	-	-
	<i>Case M Flows</i>	-	-	-	-	-
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	-	-
	TOTAL	-	-	-	-	-
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	1.4%	0.9%	3.7%	4.5%	-
	<i>Moderate to High Inundation Potential</i>	0.2%	1.9%	0.1%	-	-
	<i>High Inundation Potential</i>	5.6%	8.8%	10.5%	18.2%	\$44
	TOTAL	7.2%	11.6%	14.3%	22.7%	\$44
Hydrological Hazards	Flooding					
	<i>100-year Flood</i>	20.4%	1.3%	-	-	-
	<i>500-year Flood</i>	0%	-	0.9%	-	-
	<i>Floodway</i>	-	-	-	-	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-
	TOTAL	20.4%	1.3%	0.9%	-	-
Ne	Wildfire Zones					



	<i>Interface Very Low-Low Structure Density</i>	3.6%	1.1%	1.5%	9.1%	\$25
	<i>Interface Medium-High Structure Density</i>	17.6%	40.7%	40.4%	20.5%	\$2
	<i>Intermix Very Low-Low Structure Density</i>	11.5%	3.1%	4%	22.7%	\$4
	<i>Intermix Medium-High Structure Density</i>	12.4%	14.5%	21.2%	22.7%	\$3
	TOTAL	45.1%	59.4%	67.1%	75%	\$34



Status of Blaine's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

1	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
2	Funding Source:	Local; State; FEMA; Private; Other
3	Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Education and Outreach

EO-a. Ongoing County-wide Education and Awareness Activities.

Blaine, and other jurisdictions within Whatcom, engage in a range of public awareness activities at public events, in the schools and through media channels.

Action Item	Lead Responsibility	Funding	Estimated Cost
Emergency preparedness education programs for schools.	Whatcom County Sheriff's Office Division of Emergency Management (WCDEM)	State/Local	\$15,000
Drills, exercises in homes, workplaces, classrooms, etc.	WCDEM	State/Local	\$4,000
Hazard "safety fairs."	WCDEM	State/Local	\$4,000



Hazard conferences, seminars.	WCDEM	State/Local	\$15,000
Hazard awareness weeks.	WCDEM	State/Local	\$15,000
Preparedness handbooks, brochures. Distribution of severe weather guides, homeowner's retrofit guide, etc.	WCDEM	State/Local	\$20,000
Newspaper articles.	City of Blaine Administrative Services	Local	\$2,000
Direct Mailings	City of Blaine Administrative Services	Local	\$12,000
Utility Bill Inserts	City of Blaine Finance / Administrative Services	Local	\$6,000
Annual correspondence with residents reminding them of the need to be hazard prepared.	Whatcom County Sheriff's Office Division of Emergency Management	State/Local	\$2,000

EO-b. Public Service Announcements The city of Blaine has a robust online presence on Facebook and Twitter.

Lead Agency	City of Blaine Public Safety
Funding Source	State/ Federal
Current Status	Ongoing

Drought/heat wave

D-a. Educate Residents on Water Saving Techniques –



Yearly medial and sign postings about water conservation, especially with lawn watering in the summer.

Lead Agency	City of Blaine Public Works
Funding Source	State/Local
Current Status	Action Ongoing

Earthquake

EQ-a. Acquire Sufficient Power-generating Capacity to Serve Critical Sites During Extended Power Loss There are several sewer lift stations, water well pumps stations, designated emergency shelters, EOC, and Public Works facilities that require backup power generation capacity in the event of a severe storm or other emergency causing widespread extended disruption of power supplies. Sufficient regenerative capacity does not currently exist, and should be purchased, installed, and maintained to provide this capacity.

The City's capital facilities planning anticipates infrastructure projects over a 6-year planning horizon. Yearly work is done on utilities to maintain them. We anticipate a Water System Comprehensive Plan Update to be adopted this year, and extensive sewer repairs in East Blaine beginning in 2022.

Lead Agency	City of Blaine
Funding Source:	Local sources, and state and federal grants and loans
Timeline:	Moderate term (estimate 1 to 3 years after funding)
Current Status	Ongoing

EQ-b. Adopt and enforce building codes–

The City adopts by reference the most updated versions of the ICC suite. Building permits are reviewed pursuant to the IRC/IBC.

Lead Agency	City of Blaine Community Development Services/Public Safety
Funding Source	State/Local
Current Status	Completed, updates when applicable

EQ-c. Incorporate Earthquake Mitigation into Local Planning –



The City has an adopted critical areas ordinance.

Lead Agency	City of Blaine Community Development Services/Public Safety
Funding Source	State/Local
Current Status	Completed, updates when applicable

EQ-d. Conduct Inspections of Building Safety –

As required by the Fire District.

Lead Agency	Fire District 21
Funding Source	State/Local
Current Status	Completed, updates when applicable

EQ-e. Conduct Outreach to Builders, Architects, Engineers, and Inspectors –

The Building Official is a member of WABO and engages with other local officials in outreach.

Lead Agency	City of Blaine Community Development Services
Funding Source	State/Local
Current Status	Action Ongoing

EQ-f. Provide Information on Structural and Non-Structural Retrofitting –

Application of currently adopted building codes to permit applications.

Lead Agency	City of Blaine CDS
Funding Source	State/Local
Current Status	Action Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

FL-a. Incorporate Flood Mitigation in Local Planning –

Adopted in Chapter 17.86 of Blaine Municipal Code (BMC).



Lead Agency	City of Blaine Community Development Services
Funding Source	State/Local
Current Status	Completed

FL-b. Form Partnerships to Support Floodplain Management –

Coordination with the Port of Bellingham and the Semiahmoo Resort Association.

Lead Agency	City of Blaine Community Development Services/Public Works
Funding Source	State/Local
Current Status	Ongoing

FL-c. Limit or Restrict Development in Floodplain Areas –

Development in the Floodplain (mostly the Wharf District and Semiahmoo Spit) is subject to the performance standards in Chapter 17.86 BMC.

Lead Agency	City of Blaine Community Development Services/Public Works
Funding Source	State/Local
Current Status	Ongoing

FL-d. Manage the Floodplain Beyond Minimum Requirements –

The City goes beyond the minimum requirements pursuant to application of Chapter 17.86 BMC.

Lead Agency	City of Blaine Public Safety
Funding Source	Local
Current Status	Action Complete

FL-e. Improve Storm water Drainage System Capacity –

Existing Blaine stormwater facilities will meet the needs of our forecasted population projections of approximately 10,000 people by 2036 (see 2016 Comp Plan, 2021 Budget ORD) pursuant to following the most current version of the ECY Stormwater Management Manual. The City is not considered NPDES Phase II by Ecology, but the City exceeds minimum requirements by adopting the most current version of the Manual to manage all development projects.



Lead Agency	City of Blaine Public Works
Funding Source	State/Local
Current Status	Action Complete, Updating as applicable

FL-f. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures –

Lead Agency	City of Blaine Public Works
Funding Source	Federal
Current Status	Action Ongoing

FL-g. Educate Property Owners about Flood Mitigation Techniques –

City of Blaine Admin: ongoing through education through Facebook, the Northern Light, etc

Lead Agency	City of Blaine City Manager/City Clerk
Funding Source	State/Local
Current Status	Action Ongoing

Landslide/erosion

ER-a. Map and Assess Vulnerability to Erosion –

Maintenance of GIS shapefiles.

Lead Agency	City of Blaine Public Works
Funding Source	State/Local
Current Status	Action Ongoing

ER-b. Manage Development in Erosion Hazard Areas –

Application of Chapters 13.01 (stormwater), 17.82 (CAO) and 15 (Building) of the BMC.

Lead Agency	City of Blaine Community Development Services
Funding Source	State/Local
Current Status	Action Complete, update when applicable.

ER-c. Promote or Require Site and Building Design Standards to Minimize Erosion Risk –

Lead Agency	City of Blaine Community Development Services / Public Works
Funding Source	State/Local
Current Status	Action Complete, update when applicable.



Landslide Subsidence

No actions ongoing, discontinued, or completed for this hazard.

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

No actions ongoing, discontinued, or completed for this hazard.

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

TSU-a. Earthquake/Tsunami Warning System –

Blaine has more than 10 miles of shoreline, and significant lowland exposures to Puget Sound coastline. Valuable properties, infrastructure, and populated areas could be at risk in the event of a tsunami. Installation of an appropriately sited All Hazards Alert Broadcast tower has been installed.

Lead Agency	City of Blaine
Funding Source	Local sources, and state and federal grants and loans
Current Status	Action Completed, 2017

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes

WW-a. Protect Power Lines –

Public Works crews keep utilities and travel corridors working and clear throughout the winter.



Lead Agency	Fire District 21/City of Blaine Public Works
Funding Source	Local/ State
Current Status	Ongoing

Multiple Hazards

MU-a. Community Early Warning System –

A community-wide warning system to help provide broad community notice for evacuation in the event of tsunami, large scale hazardous material spills involving rail or truck lines, or Weapon of Mass Effect incidents involving the international border. Such an early warning system typically involve a series of sirens that are triggered in the event the city needs to be evacuated.

Lead Agency	City of Blaine
Funding Source	Local sources, and state and federal grants and loans
Current Status	Action Completed, 2017



Blaine 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Blaine-Specific Hazard Mitigation Goals

Blaine supports the above county-wide goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Blaine considered mitigation options related to earthquakes, tsunamis, and severe storms, especially those related to coastal flooding, because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Blaine. Some options have already been implemented or are ongoing in Blaine, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Blaine has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial, and political considerations, 2) The Criticality of the action, based upon a



consideration of which actions had the greatest potential to protect life, property, and public welfare. Blaine is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority:	H (High); M (Medium); L (Low)
4	Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source:	Local; State; FEMA; Private; Other
6	Estimated Cost:	Actual; Estimated



Blaine Identified Mitigation Actions 2021-2025

CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Education and Outreach Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>EO-a Ongoing -- Ongoing County-Wide Education and Awareness Activities</i>	2	WCDEM	M	O	State/Local	\$95,000
	<i>EO-b Ongoing – Public Service Announcements</i>	2	City of Blaine Public Safety	M	O	State/Federal	Staff
	G-1 Partner with neighboring jurisdictions and public and private entities to ensure adequate emergency shelter capacity and utility infrastructure during severe storms and other natural disasters.	4,5	City of Blaine		S	Local sources, and state and federal grants and loans	Staff
Hazard Specific (Reference: Whatcom County Mitigation Ideas)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee							

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Failures (See: Flooding)							
Droughts/Heat Waves	<i>D-a Ongoing – Educate Residents on Water Saving Techniques</i>	2,3	Public Works	M	O	State/Local	Staff
	D-1 Assess Vulnerability to Drought Risk	1,2	City of Blaine Public Works	M	M	Federal	
	D-2 Plan for Drought	1,3	City of Blaine Public Works/ Public Safety	L	M	Federal	
Earthquakes	<i>EQ-a Ongoing -- Acquire Sufficient Power-generating Capacity to Serve Critical Sites During Extended Power Loss</i>	1, 5	City of Blaine	M	O	Local, State, Federal	
	<i>EQ-e Ongoing – Conduct Outreach to Builders, Architects, Engineers, and Inspectors</i>	1	Community Development Services	M	O	State, Local	
	<i>EQ-f Ongoing – Provide Information on Structural and Non-Structural Retrofitting</i>	1	Community Development Services	M	O	State, Local	
	EQ-1 Police Station	1,5	City of Blaine		L	Local sources, and state and	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Studies have repeatedly indicated that the police service bays would suffer significant damage and casualties in the event of an earthquake. These facilities should be retrofitted, replaced, or relocated so that they can survive a 6.0 magnitude or greater earthquake event. The City is tentatively planning to demolish the Old City Hall, but leave a portion to provide room for Police storage.					federal grants and loans	
	EQ-2 Semiahmoo Spit Commercial and Marina Areas The Semiahmoo Marina, Inn at Semiahmoo, several condominium developments, a Whatcom County Park, and Blaine's former wastewater treatment plant site constitute several tens of millions of dollars in buildings with a daily occupancy and use rate in the hundreds, year-round. It is served by a single point of ingress/egress along the lowland spit northward from Drayton Harbor Road.	1	City of Blaine		S	Local sources, and state and federal grants	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Significant storm driven tidal action can, and does, compromise the Semiahmoo Parkway roadway along this spit on occasion. Storm winds place the marina facilities at increased risk. A natural event such as earthquake, tsunami, or wind driven tidal surge could damage property and strand civilians in the spit area and deny access to emergency responders. A plan needs to be developed and provisioned to provide prompt notification to people along Semiahmoo spit, and to provide alternative means for their escape from the area if the roadway is compromised or if quick evacuation is essential. The plan should include contingency planning should a blocked roadway prevent access by emergency vehicles.					and loans	
	EQ-3 Map and Assess Community Vulnerability to Seismic Hazards Use of GIS mapping can help inform city	1,2	Public Works	L	S	State/Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	decisions and protect the welfare of residents and critical infrastructure.						
Extreme Temperatures	No current ongoing or future planned actions for extreme temperatures.						
Flooding	<i>FL-b Ongoing – Form Partnerships to Support Floodplain Management</i>	1	Community Development Services/Public Works	M	O	State/Local	
	<i>FL-c Ongoing – Limit or Restrict Development in Floodplain Areas</i>	1	Community Development Services/Public Works	M	O	State/Local	
	<i>FL-f Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1	Public Works	M	O	Federal	
	<i>FL-g. Ongoing -- Educate Property Owners about Flood Mitigation Techniques</i>	2	City Manager/City Clerk	M	O	State/Local	
	FL-1 Improve Flood Risk Assessment	1,3	City of Blaine Public Works	M	S	State/Local	Existing staff time and

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Critical Areas Ordinance update scheduled for 2022		CDS				capacity.
	FL-2 Elevate or Retrofit Structures and Utilities Includes the Resort, and some pump stations.	1,5	City of Blaine Public Works	L	L	Federal	\$2,000,000
	FL-3 Protect and Restore Natural Flood Mitigation Features – Coastal berms and dunes.	3	City of Blaine Public Works	L	L	Federal	\$10,000,000
	FL-4 Increase Awareness of Flood Risk and Safety	2	City of Blaine Public Safety	L	M	Federal	Consultant
Landslide/Erosion	ER-a Ongoing -- Map and Assess Vulnerability to Erosion	1	City of Blaine Public Works	M	O	State/Local	Staff
	ER-1 Stabilize Erosion Hazard Areas Stabilize Semiahmoo spit and road/utility corridor. Continued work to stabilize the Marine Shoreline.	1,5	City of Blaine Public Works	M	M	Federal	\$5,000,000
	ER-2 Increase Awareness of Erosion	2	City of Blaine	L	L	Federal	Consultant

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Hazards		Community Development Services				
Land Subsidence	No current ongoing or future planned actions for Land Subsidence. No known risk of land subsidence within Blaine						
Lightning	No current ongoing or future planned actions for Land Subsidence. Whatcom County has County-wide mitigation actions in place.						
Severe Storms	SS-1 Community-wide Education and Preparation A plan should be developed to work with community faith-based, educational, and public services to educate the residents of Blaine about the weather-related events that place them at risk, and provide planning tools that they can use to	2	City of Blaine		M	Local sources, and state and federal grants and loans	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	mitigate those risks in their homes and businesses. A similar planning and preparation procedure should be adopted within the departments of city government.						
Severe Wind	SW-1 Assess Vulnerability to Severe Wind	1	City of Blaine Public Works	M	M	Federal	\$4,000
Tornadoes	No current ongoing or future actions for tornadoes.						
Tsunami	TSU-1 Manage Development in Tsunami Hazard Areas Critical areas updates scheduled for 2022	1	City of Blaine Community Development Services	L	L	State/Local	Existing staff capacity and time
	TSU-2 Build Tsunami Shelters	1	City of Blaine Public Safety	L	L	Federal	\$6,000,000
Wildfires	WF-1 Map and Assess Vulnerability to Wildfire	1	Fire District 21/City of Blaine Public Safety	L	M	Federal	Existing staff capacity and time
	WF-2 Incorporate Wildfire Mitigation in the Comprehensive Plan	1,4	Fire District 21 / City of Blaine	L	L	State/Local	Existing staff capacity and
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Comprehensive Plan update in 2025		Public Safety				time
	WF-3 Reduce Risk through Land Use Planning Application of vegetative buffers pursuant to the BMC.	1,3	City of Blaine Community Development Services	L	L	State/Local	Existing staff capacity and time
	WF-4 Require or Encourage Fire-Resistant Construction Techniques	1,2	Fire District 21 / City of Blaine Community Development Services	L	L	Federal	\$165,500
	WF-5 Retrofit At-Risk Structures with Ignition-Resistant Materials	1	Fire District 21 and City of Blaine Community Development Services	L	L	Federal	\$865,500
	WF-6 Create Defensible Space Around Structures and Infrastructure	1	Fire District 21 / City of Blaine Community Development Services	L	L	Federal	\$500,500

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	WF-7 Conduct Maintenance to Reduce Risk	5	Public Works	L	L	State/Local	\$250k
Winter Storms/ Freezes (Severe Winter Weather)	WW-a. Protect Power Lines	1	Fire District 21/Public Works	M	O	State/Local	
	WW-1 Develop Plan to Assist Vulnerable Populations	1	City of Blaine Public Safety/ Fire District 21	M	L	City of Blaine	\$100,000
Multiple Hazards	All future actions are focused on mitigating specific hazards.						
Advanced Mitigation Projects (Dream List)	Marine Drive Commercial and Marina Areas Emergency Plan A natural event such as earthquake, tsunami, or derailment would strand civilians in the harbor and deny access to emergency responders. A plan needs to be developed and provisioned to provide prompt notification to people in the harbor area, and to provide alternative means for their escape from the area if Marine Drive is closed. The plan should	1,2,5	City of Blaine		L	Local sources, and state and federal grants and loans	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	include contingency planning should a blocked roadway prevent access by emergency vehicles.						
	Earthquake Early Warning System These systems are envisioned to warn residents of an impending earthquake. Technology does not currently exist for early detection with sufficient accuracy, but will likely be available in the future.	1,2	City of Blaine		L	Local sources, and state and federal grants and loans	
	Retrofit Residential Buildings For severe wind and other hazards.	1	City of Blaine Community Development Services		L	Federal	\$4,000,000
	Retrofit Public Buildings and Critical Facilities For severe wind and other hazards.	1,5	City of Blaine Community Development Services/ Public Works		L	Federal	\$8,000,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF BLAINE IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Install sufficient regenerative power capacity for critical sites-Power Generating Capacity	5	City of Blaine Public Works	M	O	State/ Local funding	TBD
	Well field Backup Power	5	City of Blaine Public Works	M	O	State/ Local funding	\$500,000.00
	Natural Hazard Early Warning Systems	1,2	City of Blaine Public Safety/ Public Works	L	O	State/ Local funding	\$155,000.00
	Tone Radio Based Early Warning System Natural Hazard Early Warning Systems	1,2	City of Blaine Public Safety/ Public Works	L	O	State/ Local funding	\$75,000.00

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Blaine Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Blaine Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Education and Outreach						
<i>EO-a. Ongoing County-wide Education and Awareness Activities.</i>						
<i>EO-b. Public Service Announcements.</i>						
G-1 Partner with neighboring jurisdictions and public and private entities to ensure adequate emergency shelter capacity and utility infrastructure during severe storms and other natural disasters						
<i>Add New Action Items if Applicable</i>						
DAM/LEVEE FAILURES						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						
<i>D-a. Educate Residents on Water Saving Techniques</i>						
D-1 Assess Vulnerability to Drought Risk						
D-2 Plan for Drought						
<i>Add New Action Items if Applicable</i>						
EARTHQUAKES						
<i>EQ-a. Acquire Sufficient Power-generating Capacity to Serve Critical Sites During Extended Power Loss</i>						



City of Blaine Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>EQ-b. Adopt and enforce building codes</i>						
<i>EQ-c. Incorporate Earthquake Mitigation into Local Planning</i>						
<i>EQ-d. Conduct Inspections of Building Safety</i>						
<i>EQ-e. Conduct Outreach to Builders, Architects, Engineers, and Inspectors</i>						
<i>EQ-f. Provide Information on Structural and Non-Structural Retrofitting</i>						
EQ-1 Police Station						
EQ-2 Semiahmoo Spit Commercial and Marina Areas						
EQ-3 Map and Assess Community Vulnerability to Seismic Hazards						
Add New Action Items if Applicable						
FLOODING						
<i>FL-a. Incorporate Flood Mitigation in Local Planning</i>						
<i>FL-b. Form Partnerships to Support Floodplain Management</i>						
<i>FL-c. Limit or Restrict Development in Floodplain Areas</i>						
<i>FL-d. Manage the Floodplain Beyond Minimum Requirements</i>						
<i>FL-e. Improve Storm water Drainage System Capacity</i>						
<i>FL-f. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>						
<i>FL-g. Educate Property Owners about Flood Mitigation Techniques</i>						



City of Blaine Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
FL-1 Improve Flood Risk Assessment						
FL-2 Elevate or Retrofit Structures and Utilities						
FL-3 Protect and Restore Natural Flood Mitigation Features – Coastal berms and dunes.						
FL-4 Increase Awareness of Flood Risk and Safety						
Add New Action Items if Applicable						
LANDSLIDES/EROSION						
ER-a. Map and Assess Vulnerability to Erosion						
ER-b. Manage Development in Erosion Hazard Areas						
ER-c. Promote or Require Site and Building Design Standards to Minimize Erosion Risk						
ER-1 Stabilize Erosion Hazard Areas						
ER-2 Increase Awareness of Erosion Hazards						
Add New Action Items if Applicable						
LAND SUBSIDENCE						
Add New Action Items if Applicable						
TORNADOES						
Add New Action Items if Applicable						
TSUNAMI						
TSU-a. Earthquake/Tsunami Warning System						



City of Blaine Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
TSU-1 Manage Development in Tsunami Hazard Areas						
TSU-2 Build Tsunami Shelters						
Add New Action Items if Applicable						
WILDFIRES						
WF-1 Map and Assess Vulnerability to Wildfire						
WF-2 Incorporate Wildfire Mitigation in the Comprehensive Plan						
WF-3 Reduce Risk through Land Use Planning						
WF-4 Require or Encourage Fire-Resistant Construction Techniques						
WF-5 Retrofit At-Risk Structures with Ignition-Resistant Materials						
WF-6 Create Defensible Space Around Structures and Infrastructure						
WF-7 Conduct Maintenance to Reduce Risk						
Add New Action Items if Applicable						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WW-a. Protect Power Lines						
WW-1 Develop Plan to Assist Vulnerable Populations						
Add New Action Items if Applicable						
SEVERE STORMS						



City of Blaine Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
SS-1 Community-wide Education and Preparation						
<i>Add New Action Items if Applicable</i>						
EXTREME TEMPERATURES						
<i>Add New Action Items if Applicable</i>						
LANDSLIDE						
<i>Add New Action Items if Applicable</i>						
LIGHTNING						
<i>Add New Action Items if Applicable</i>						
SEVERE WIND						
SW-1 Assess Vulnerability to Severe Wind						
<i>Add New Action Items if Applicable</i>						
MULTIPLE HAZARDS						
MU-a. Community Early Warning System						
<i>Add New Action Items if Applicable</i>						



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CITY OF EVERSON

Contact Information

Dan MacPhee
Police Chief
P.O. Box 315 Everson, WA 98247
(360) 966-4212

Approving Authority

Mayor John Perry & City Council Members
P.O. Box 315 Everson, WA 98247
(360) 966-3411

Planning Process

The City of Everson process of reviewing, updating, and adopting the 2021 update of the Whatcom County Natural Hazards Mitigation Plan (NHMP or Plan) included review by multiple City departments and formal adoption by the City Council. Review of the prior plan began in early 2021. The City Planner reviewed the previous plan and met with the Public Works Director and Chief of Police to identify portion of the plan that might need to be updated. From February through April of 2021 the City Planner attended a series of coordination meetings hosted by the County Division of Emergency Management (DEM). Initial guidance was received from DEM regarding the update schedule and the main areas to focus on as part of the update.

In early March 2021, the City provided public notice in the Lynden Tribune regarding the planned update of the NHMP and posted information regarding the update on the City website. Information regarding opportunities to provide public comment was also posted to the City website. During March and April of 2021, the City Planner prepared draft revisions to the NHMP and met with the Public Works Director and the Chief of Police to review the draft revisions and receive additional input. During the same time period, City staff participated in two virtual public meetings hosted by DEM where the public was invited to receive information and ask questions regarding the 2021 update of the NHMP.

The draft revisions to the NHMP addressing the city of Everson, incorporating input received from the Public Works Director, Mayor and Chief of Police, were submitted to DEM in late April 2021. In May of 2021, DEM notified the public regarding the availability of draft revisions to the full Plan and hosted a third virtual public meeting to receive comments from the public. Following review by the City Council in May 2021, the City Council passed a motion supporting the updates contained in the Everson section of draft NHMP. Prior to the Plan being submitted to the Federal Emergency Management Agency for review, the City Council expects to formally adopted the draft Plan in summer 2021. It is anticipated that formal adoption by ordinance will follow approval from FEMA.



Key Contributor List

- Rollin Harper, City Planner
- Dave Schoonover, Public Works Director
- Police Chief Dan MacPhee
- Mayor John Perry

Meeting Dates and Attendees

- February 23, 2021 – Harper, Schoonover and MacPhee
- April 15, 2021 – Harper, Schoonover and MacPhee
- April 30, 2021 – Harper and Schoonover

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting Everson will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive plan required by the Growth Management Act (GMA);
- Development regulations required by the GMA;
 - Critical areas ordinance;
 - Capital improvement program;
 - Capital facilities planning; and
 - Water Resource Inventory Area planning.

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for the City of Everson

The City of Everson will maintain and update the Natural Hazards Mitigation Plan as needed to respond to changed circumstances, to incorporate best available science and to address changing community priorities. The Plan update process will include community engagement through public meetings and opportunities for public comment. Formal updates of the Plan will be reviewed by the City Council prior to adoption.



Public Outreach and Education

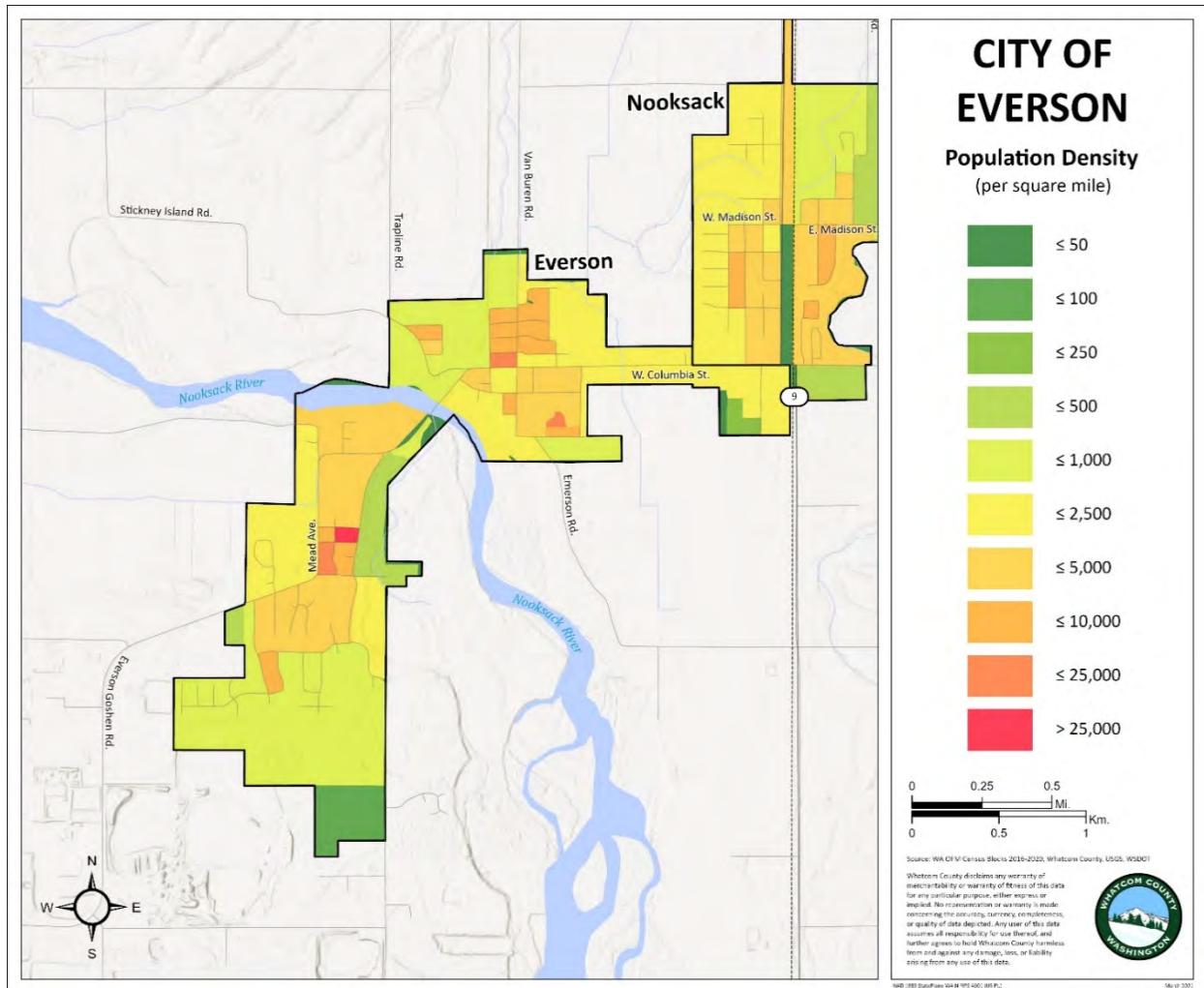
Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	
Ongoing public education or information programs	Yes 2008-CRS mailings 2010-Newsletters 2018-City website postings	Repetitive loss information Floodplain preparedness and water conservation information
School-related programs for natural hazard safety	Yes 2005	Semi-annual in-school drills regarding responses to natural disasters
Public education or information program	Yes 2008-CRS mailings 2010-Newsletters 2018-City website postings	Repetitive loss information Floodplain preparedness and water conservation information
StormReady certification	No	Whatcom County is StormReady certified.
Firewise Community certification	No	N/A
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		

Overview of Everson, Hazards, and Assets



Geography of Everson

Everson Population	2,860 (2020 estimate)
Total area	1.36 sq. mi. (within city limits)

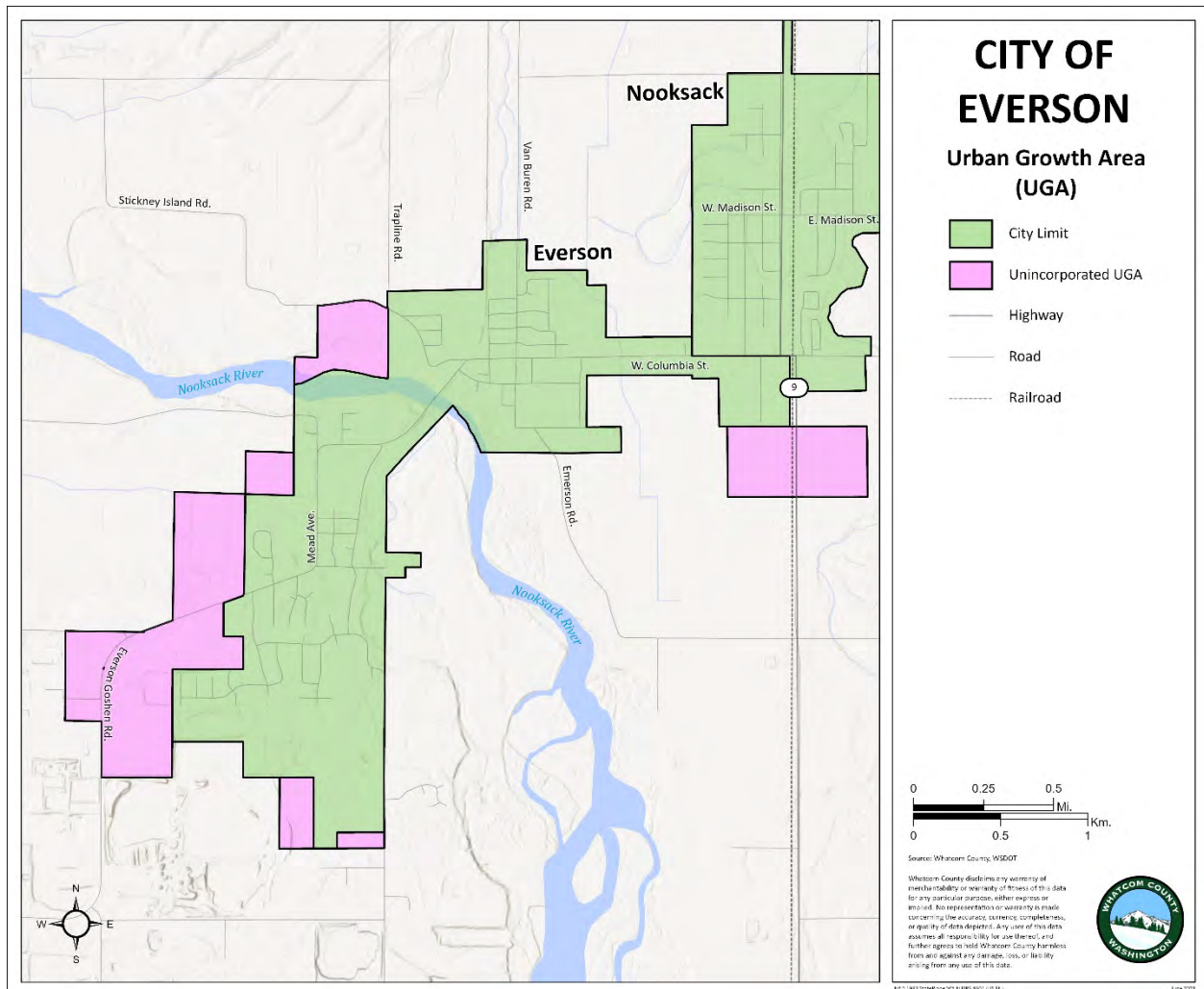


Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



Growth Trends

This map displays the UGA for the City of Everson, as designated by the Whatcom County Comprehensive Plan.





Presence of Hazards and their Impacts in Everson

Flooding from the Nooksack River is the most significant hazard that affects the City of Everson, with moderate to major events occurring every five to ten years. The most recent event occurred in February 2020 when the Nooksack River overflowed its banks to the south of Everson and flowed away from the river and into the “Nooksack Overflow Corridor,” which carries floodwaters to the north, through rural Whatcom County, the City of Sumas and into Canada. The flowing of floodwaters through the Overflow Corridor resulted in closure of E. Main Street (State Route 9), which is the main connecting route between the cities of Everson and neighboring Nooksack. This closure temporarily interrupted access police, fire and other emergency services to the eastern portions of Everson and the City of Nooksack that are located on the east side of the Overflow Corridor.

Since the 2016 NHMP was adopted, the City of Everson has grown by roughly 260 people. Nearly all of this growth occurred in the southern half of Everson, south of the Nooksack River and outside the 100-year floodplain. The Everson City Council has adopted increased densities in select non-floodplain areas, and the City is in the process of annexing an over 100-acre area that is entirely outside the floodplain. The local fire district is currently planning to relocate its Everson fire station from its current downtown location within the floodplain to a new location within the pending annexation area. In addition, over the past several years the City has completed projects to elevate critical facilities one to three feet above the elevation of the floodplain.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Everson’s total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	100%	Moderate	The City of Everson is subject to earthquakes. Seismically sensitive soils present.
	Liquefaction	95.8%	Low	Part of the city, east of Strandel Road, has known clay soil called phixatropic. Phixatropic liquefies when moved, causing landslides and flow.
	Landslide	0%	None	N/A
	Volcano	53.7%	Low	All of the downtown area, adjacent to the Nooksack River, and north and east to the City Limits are vulnerable to a Mount Baker lahar.
	Tsunami	0%	None	N/A
	Mine Hazards	0%	None	N/A
Hydro-logical	Flooding	42.1%	High	Hazard presents a frequent and severe risk due to isolated areas. Major flooding occurred in 1989, 1990, and 1995. Flooding begins on the west side of the City and moves east and north up Highway 9 toward Sumas. A 1991 dike was extended with money from mitigation. A dike runs parallel to the river on the west side, and ends on Emerson Road, which prevents water from going to Washington Street and on through to Main Street. This dike diverts Nooksack River overflow to the floodway. The Sumas River can flood east of the city, but does not cause severe problems.



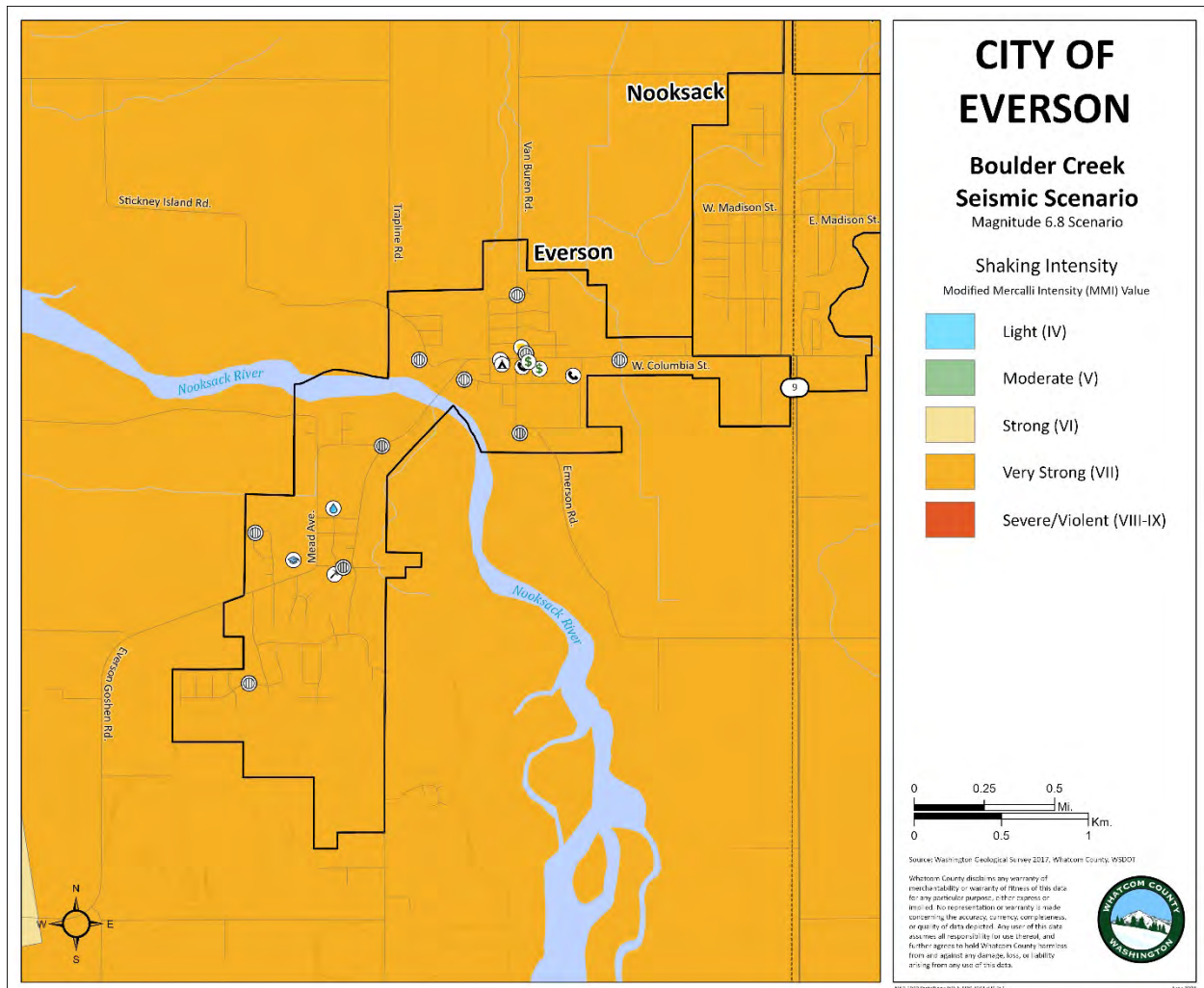
Meteorologica —	Wildfire	22.7%	Low	Various residential homes at risk. The city has multiple 1970s apartments and duplexes and two senior living facilities. Two mobile home parks are present with a total of 71 units.
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Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

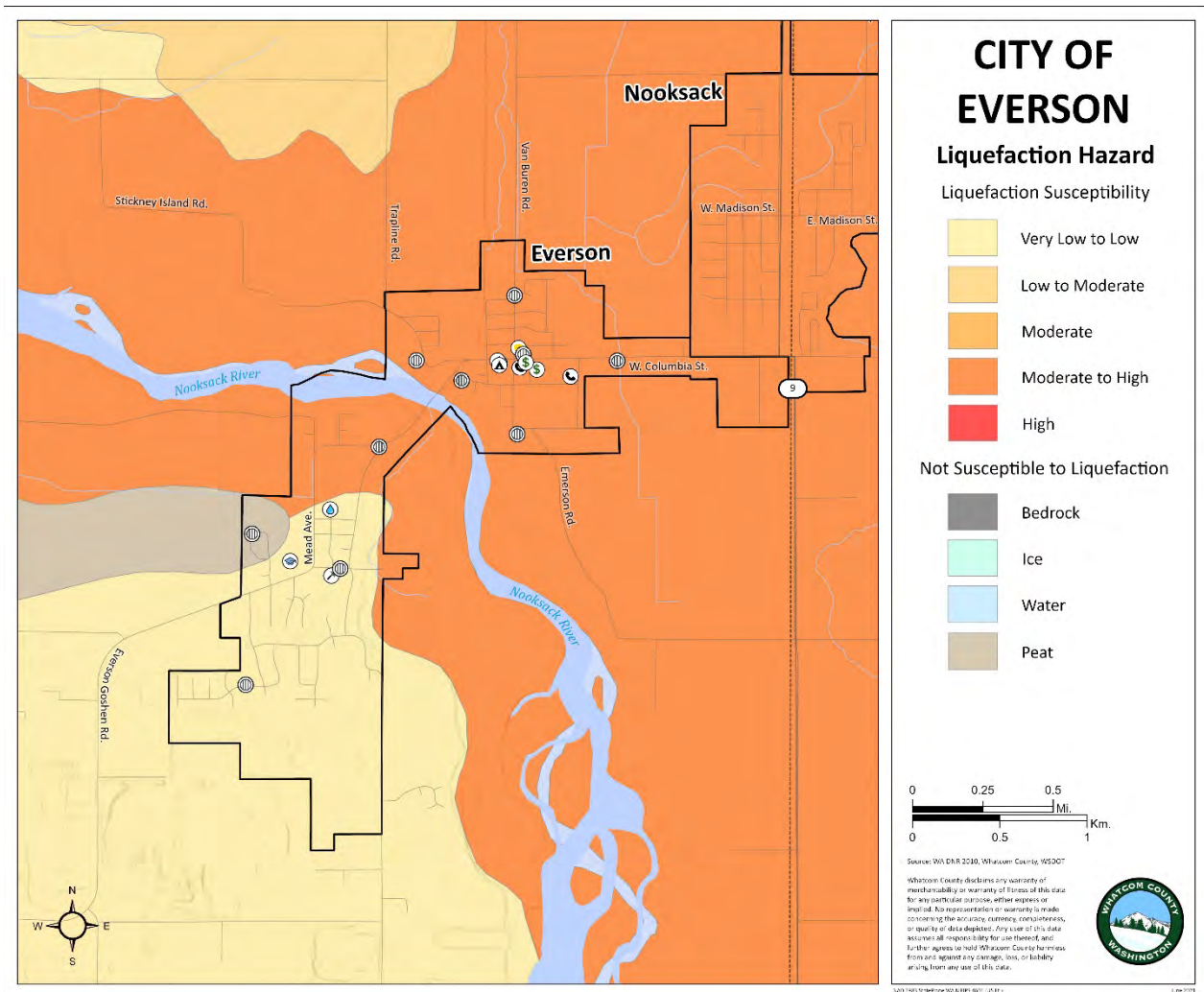


Natural Hazard Maps

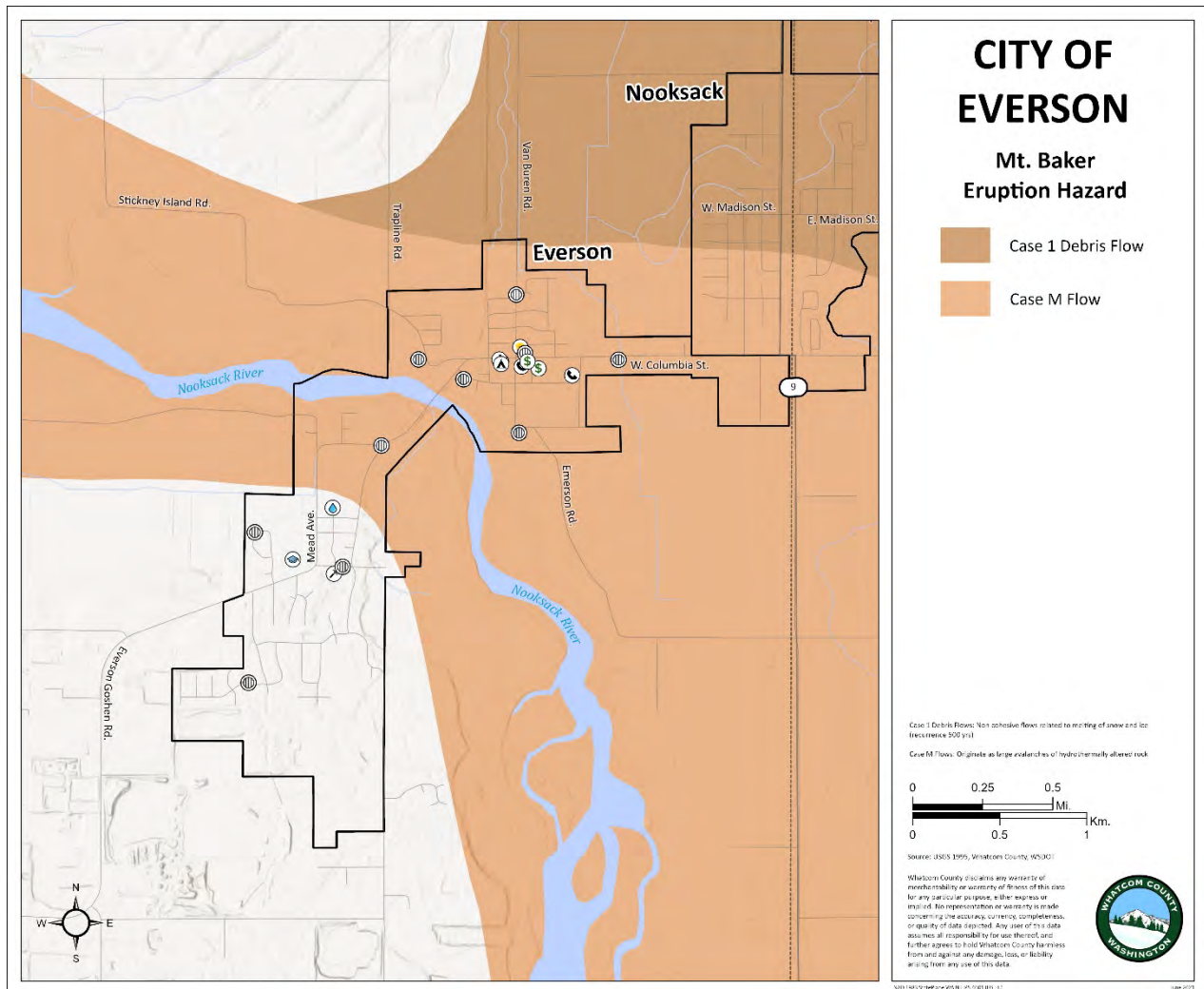
The following figures depict the natural hazards present within the jurisdiction.



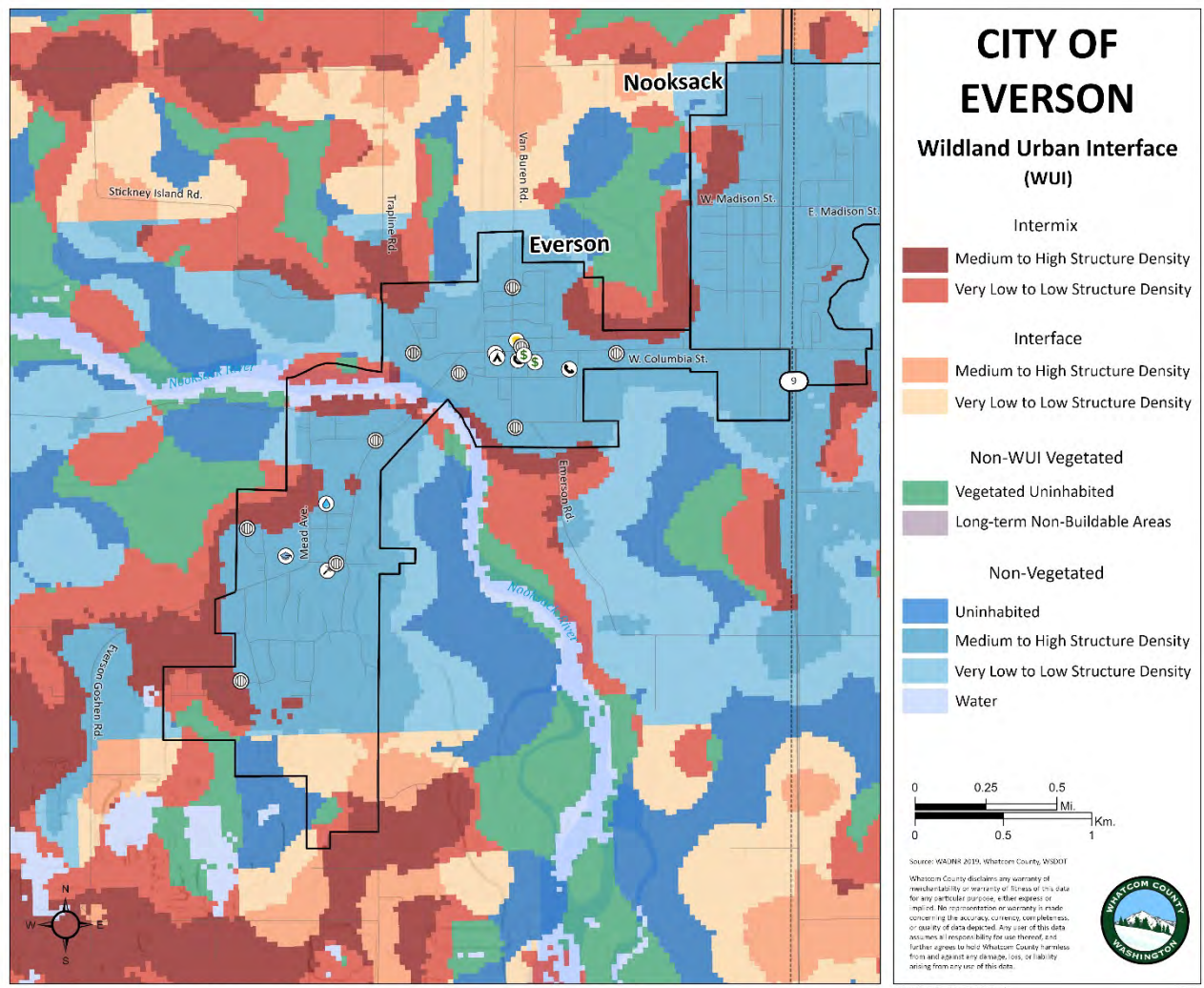
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities



Everson Critical Facility List

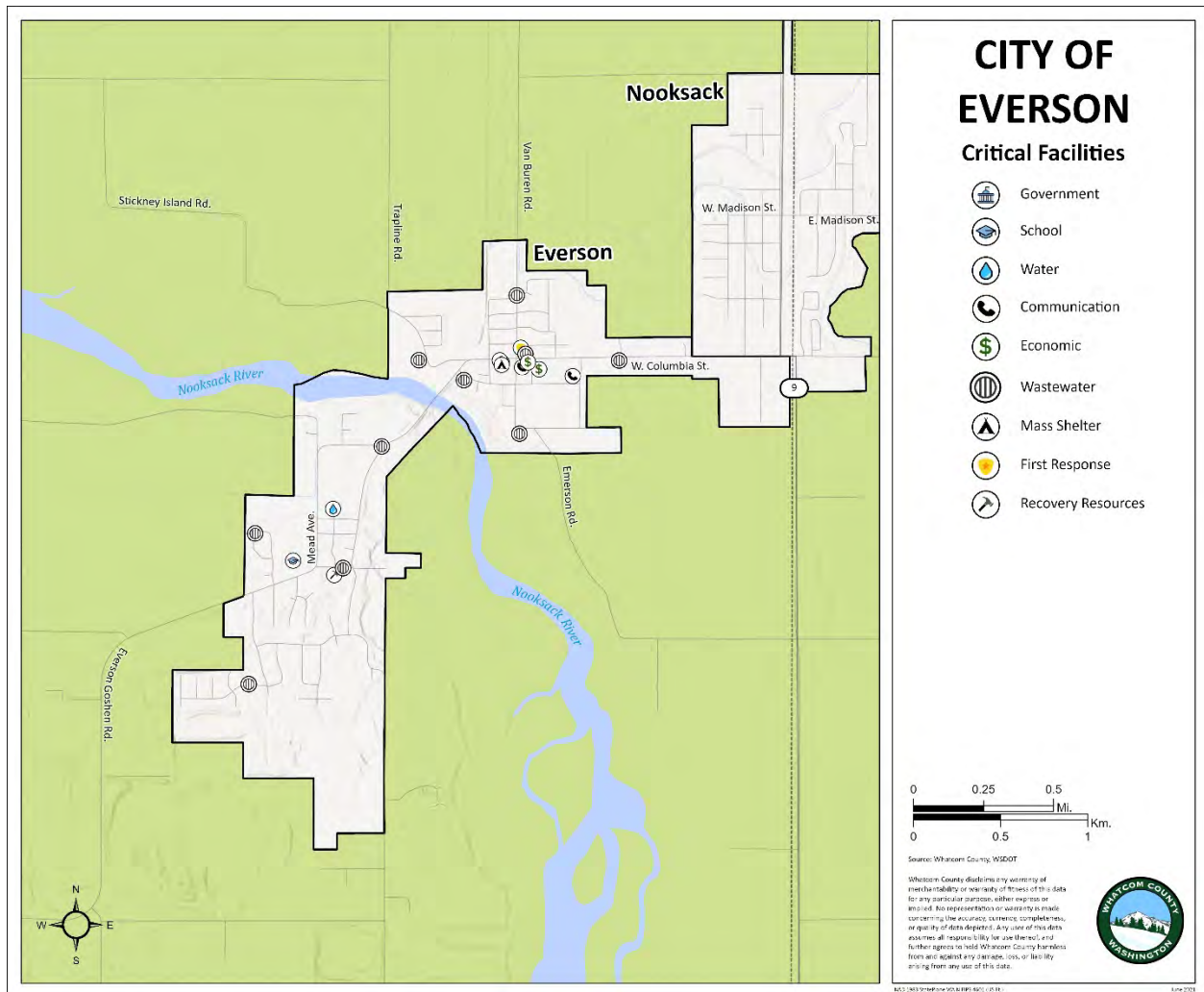
Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Elementary School - Dist. 506	EF	2	216 Everson-Goshen Road		Evacuation Center
Everson City Hall	EF	3	111 W. Main Street		Government
Everson Police Dept.	EF	3	109 W. Main Street		Law Enforcement
Everson Community Center	EF	1	111 W. Main Street		Evacuation Center
Everson Water Production Facility	LUS	3	610 Freda Street		Utility: Water
People's Bank	EF	1	200 E. Main Street		Economic
Post Office	EF	2	108 Blair Drive		Mail
Public Works Strandell Shop	EF	1	603 Robinson Street		Public Works
Pump Station #11	LUS	2	716 Red Maple Loop		Utility: Sewer
Pump-Station - Evergreen	LUS	2	116 Evergreen Way		Utility: Sewer
Pump-Station #10	LUS	2	605 Robinson Street		Utility: Sewer
Pump-Station #4 (Interceptor)	LUS	3	506 E. Main Street		Utility: Sewer
Pump-Station #5	LUS	2	103 E. Main Street		Utility: Sewer
Pump-Station #6	LUS	2	208 Everson Road		Utility: Sewer
Pump-Station #7	LUS	2	401 Lincoln Street		Utility: Sewer
Pump-Station #8	LUS	2	102 Reeds Lane		Utility: Sewer
Pump-Station #13	LUS	2	1117 Cashmere Lane		Utility: Sewer
Verizon Communications	LUS	1	107 S. Washington Street		Utility: Communication
Waste Water Treatment Plant	HMF	3	101 Park Drive		Utility: Sewer
Whatcom County Fire District 1	EF	3	101 E. Main Street		Fire Station



Whatcom Educational Credit Union	EF	1	106 E. Main Street		Economic
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Facility Type: **EF** = Essential Facility; **HMF** = Hazardous Materials Facility; **HPL** = High Potential Loss; **LUS** = Lifeline Utility System

Significance to community function: **1**=Moderate; **2**= High; **3** =Very High



Map of critical facilities identified by the City of Everson. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the City of Everson

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Elementary School - Dist. 506	EF	2	1	1	0	0	0	0	0	0	0.29
Everson City Hall	EF	3	1	1	0	0	1	1	0	0	1
Everson Police Dept.	EF	3	1	1	0	0	1	1	0	0	1
Everson Community Center	EF	1	1	1	0	0	1	1	0	0	0.33
Everson Water Production Facility	LUS	3	1	1	0	0	0	0	0	0	0.43
People's Bank	EF	1	1	1	0	0	1	1	0	0	0.33
Post Office	EF	2	1	1	0	0	1	1	0	0	0.66
Public Works Strandell Shop	EF	1	1	1	0	0	0	0	0	0	0.14
Pump Station #11	LUS	2	1	0	0	0	0	0	0	0	0.14
Pump-Station - Evergreen	LUS	2	1	1	0	0	1	1	0	0	0.66
Pump-Station #10	LUS	2	1	1	0	0	0	0	0	0	0.29
Pump-Station #4 (Interceptor)	LUS	3	1	1	0	0	1	1	0	0	1
Pump-Station #5	LUS	2	1	1	0	0	1	1	0	0	0.66
Pump-Station #6	LUS	2	1	1	0	0	1	1	0	0	0.66



Pump-Station #7	LUS	2	1	1	0	0	1	1	0	0	0.66
Pump-Station #8	LUS	2	1	1	0	0	1	1	0	0	0.66
Pump-Station #13	LUS	2	1	1	0	0	0	0	0	0	0.29
Verizon Communications	LUS	1	1	1	0	0	1	1	0	0	0.33
Waste Water Treatment Plant	HMF	3	1	1	0	0	1	1	0	0	1
Whatcom County Fire District 1	EF	3	1	1	0	0	1	1	0	0	1
Whatcom Educational Credit Union	EF	1	1	1	0	0	1	1	0	0	0.33

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = T0sunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

	City of Everson Exposure to Natural Hazards					
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	MMI V	-	-	-	-	-
	MMI VI	-	-	0.1%	-	-
	MMI VII	100%	100%	99.8%	100%	\$12
	MMI VIII - IX	-	-	-	-	-
	TOTAL	100%	100%	99.9%	100%	\$12
	Liquefaction					
	Very Low to Low	42.9%	38.6%	44.4%	23.8%	\$6
	Low to Moderate	-	-	-	-	-
	Moderate	-	-	-	-	-
	Moderate to High	52.9%	59.5%	50.9%	71.4%	\$6
	High	-	-	-	-	-
	TOTAL	95.8%	98.1%	95.3%	95.2%	\$12
	Landslide					
	Landslide Low	-	-	-	-	-
	Landslide Moderate	-	-	-	-	-



Hydrological Hazards	Landslide High	-	-	-	-	-
	Fan Low	-	-	-	-	-
	Fan Moderate	-	-	-	-	-
	Fan High	-	-	-	-	-
	Mine Hazard	-	-	-	-	-
	TOTAL	-	-	-	-	-
	Volcanic Eruption					
	Case 1 Debris Flows	0.2%	0.01%	-	-	-
	Case 2 Debris Flows	-	-	-	-	-
	Case M Flows	53.5%	58.9%	49.8%	71.4%	\$6
	Pyroclastic Flows, Lava Flows, and Ballistic Debris	-	-	-	-	-
	TOTAL	53.7%	58.91%	49.8%	71.4%	\$6
	Tsunami, Inundation Zone					
	Low to Moderate Inundation Potential	-	-	-	-	-
	Moderate to High Inundation Potential	-	-	-	-	-
	High Inundation Potential	-	-	-	-	-
	TOTAL	-	-	-	-	-
	Flooding					
	100-year Flood	33.9%	35.9%	33.9%	9.5%	\$3
	500-year Flood	7.5%	14.1%	13.2%	38.1%	\$3



	<i>Floodway</i>	0.7%	6.3%	2.2%	4.8%	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-
	TOTAL	42.1	56.3%	49.3%	52.4%	\$6
Meteorological Hazards	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	3.9%	1.6%	1%	-	-
	<i>Interface Medium-High Structure Density</i>	1.4%	0.5%	0.5%	-	-
	<i>Intermix Very Low-Low Structure Density</i>	5.5%	2.3%	3.9%	-	-
	<i>Intermix Medium-High Structure Density</i>	11.9%	9%	10.2%	-	-
	TOTAL	22.7	13.4%	15.6%	-	-



Status of Everson's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

General: All Hazards

G-a. Adopt and enforce building codes. This applies to earthquakes, flooding, winter storms/freezes, and severe winds. The City Planning, Building and Public Works Departments continue to adopt and enforce building codes and development regulations that address natural hazards mitigation.

Lead Agency	Everson Planning, Building and Public Works Department
Funding Source	Local
Current Status	Ongoing

Drought/heat wave

D-a. Assess Vulnerability to Drought Risk. The City Planning Department continues to assess risks related to drought, including as part of the 2016 update to the City's critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

D-b. Monitor Drought Conditions. The City Public Works Department continues to monitor



drought conditions on annual basis and implements water-related mitigation strategies as appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-c. Monitor Water Supply. The City Public Works Department continues to monitor the public water supply and implement water conservation strategies as appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-d. Plan for Drought. The City Planning Department continues to plan for droughts, including as part of the 2016 update of the city comprehensive land use plan.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

D-e. Require Water Conservation During Drought Conditions. The City Public Works Department continues to monitor drought conditions and implement water conservation measures as appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-f. Educate Residents on Water Saving Techniques. The City Administration continues to support education of residents regarding water conservation efforts, including through information provided with quarterly newsletters.

Lead Agency	City Administration
Funding Source	Local
Current Status	Ongoing

Earthquake

EQ-a. Incorporate Earthquake Mitigation into Local Planning. The City Planning Department continues to incorporate planning related to earthquakes, including as part of the 2016 update



to the city comprehensive plan.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

EQ-b. Map and Assess Community Vulnerability to Seismic Hazards. The City Planning Department continues to map and assess vulnerability to seismic hazards, including as part of the 2016 update of the city critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

EQ-c. Conduct Inspections of Building Safety. The City Building Department continues to conduct inspections related to building safety as required by City building codes.

Lead Agency	City Building Dept.
Funding Source	Local
Current Status	Ongoing

EQ-d. Protect Critical Facilities and Infrastructure. The City Building and Public Works Departments continue to protect critical facilities and infrastructure, including elevating wastewater treatment plant control systems, operational buildings and back-up power generation systems three feet above the FEMA base flood elevation.

Lead Agency	City Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

FL-a. Incorporate Flood Mitigation in Local Planning. The City Planning Department continues to incorporate flood mitigation into local planning, including as part of the 2016 update of the city critical areas ordinance, the 2019 adoption of new FEMA flood insurance rate maps, and updates to the County comprehensive flood hazard management plan currently underway.



Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

FL-b. Form Partnerships to Support Floodplain Management. The City Planning and Public Works Departments continue to work to form partnerships that support floodplain management, including working closely with County long-range and current planning divisions and the County Public Works River and Flood Division.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-c. Limit or Restrict Development in Floodplain Areas. The City Planning, Building and Public Works Departments continue to limit development in floodplain areas through amendment and enforcement of City critical areas ordinance regulations, flood damage prevention regulations, and city building codes.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-d. Improve Stormwater Management Planning. The City Planning Department continues to improve planning, regulation and enforcement related to stormwater management, including through 2016 updates to the City comprehensive plan and the 2016 adoption of the state stormwater management manual for Western Washington.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

FL-e. Improve Flood Risk Assessment. The City Public Works Department continues to assess risks related to flooding, including through participation in the federal CRS Program and RISK Map assessment efforts.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing



FL-f. Join or Improve Compliance with NFIP. The City continues to participate in the National Flood Insurance Program (NFIP). The City Planning, Building and Public Works Departments continue to work to improve compliance with the NFIP, including through adoption of 2019 amendments to the City’s flood damage prevention ordinance that included updated flood insurance rate maps.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-g. Manage the Floodplain Beyond Minimum Requirements. The City Planning and Building Departments continue to manage floodplains beyond minimum requirements, including through amendment of critical areas and floodplain management regulations that require extra elevation of critical facilities and prohibit the placement of fill within floodplains except under certain conditions.

Lead Agency	City Planning and Building Depts.
Funding Source	Local
Current Status	Ongoing

FL-h. Establish Local Funding Mechanisms for Flood Mitigation. The County Flood Control Zone District continues to make locally generated district funds available for local projects, including the purchase of open space areas located in designated floodways within Everson.

Lead Agency	County Flood Control Zone District
Funding Source	County
Current Status	Ongoing

FL-i. Improve Stormwater Drainage System Capacity. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual system upgrades and maintenance projects.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

FL-j. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures. The City Public Works Department continues to work to improve stormwater drainage system



capacity through annual maintenance projects, such as inspection and clearing of stormwater conveyance systems.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

FL-k. Preserve Floodplains as Open Space. The City Planning Department continues to work to preserve floodplains as open space, including through the recording of restrictive covenants required in conjunction with approved subdivisions.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing; Bi-annual

FL-l. Mitigate Riverside Park from flooding. Riverside Park is located at the west city limits, and adjacent to the Nooksack River and Everson Wastewater Treatment Plant. When flooded, this site is littered with debris from the floodwaters.

Lead Agency	City Public Works Dept.
Funding Source	Local/State/Federal
Current Status	Discontinued

Landslide/erosion

No actions ongoing, discontinued, or completed for this hazard.

Landslide Subsidence

SU-a. Map and Assess Vulnerability to Subsidence. The City Planning Department continues to map and assess vulnerability to subsidence, including through 2016 updates to the City critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

SU-b. Manage Development in High-Risk Areas. The City Building Department continues to manage development in high risk areas, including through required geologically hazardous area site assessment reports.



Lead Agency	City Building Dept.
Funding Source	Local
Current Status	Ongoing

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

SW-a. Protect Power Lines and Infrastructure. The City Public Works Department continues to work to protect power lines and infrastructure through as-needed inspections following major wind events and coordination with Puget Sound Energy.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

SW-b. Retrofit Public Buildings and Critical Facilities. The City Public Works Department continues work to protect public buildings and infrastructure, including through undergrounding of power lines and provision of back-up power generation at critical facilities.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

No actions ongoing, discontinued, or completed for this hazard.

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes



WW-a. Protect Buildings and Infrastructure. The City Public Works Department continues to work to protect public buildings and infrastructure from severe winter storms, including through replacing and upgrading all City water meters to increase system resiliency.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

WW-b. Protect Power Lines. The City Public Works Department continues to work to protect power lines through as-needed inspections following major winter storm events and coordination with Puget Sound Energy.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

WW-c. Reduce Impacts to Roadways. The City Public Works Department continues to work to reduce impacts to roadways, including through implementation of road closures during major freeze/thaw events.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

Multiple Hazards

MU-a. Assess Community Risk. The City Planning and Public Works Departments continue to assess risks to the public from natural hazards, including through review of repetitive loss properties and review and adoption of updated hazard maps.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-b. Map Community Risk. The City Planning Department continues to work to map natural hazard areas and assess the risks associated with such areas, including through the 2016 update of the City's critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing



MU-c. Prevent Development in Hazard Areas. The City Building and Planning Departments continue to prevent development in hazard areas, including through enforcement of floodway, steep slopes and erosion hazard area regulations.

Lead Agency	City Building and Planning Depts.
Funding Source	Local
Current Status	Ongoing

MU-d. Adopt Development Regulations in Hazard Areas. The City Building and Planning Departments continue to work to adopt regulations addressing hazard areas, including through the 2016 update to the City's critical areas ordinance and the 2019 adoption of updated FEMA flood insurance rate maps and Flood Damage Prevention ordinance.

Lead Agency	City Building and Planning Depts.
Funding Source	Local
Current Status	Ongoing

MU-e. Limit Density in Hazard Areas. The City Planning Department continues to work to limit density in hazard areas, including through adoption of floodway regulations and establishment of low-density zones in hazard areas, such as Agriculture and Recreational Open Space.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-f. Integrate Mitigation into Local Planning. The City Planning Department continues to integrate mitigation into local planning, including through establishment and enforcement of mitigation requirements under the City's critical areas regulations.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-g. Strengthen Land Use Regulations. The City Planning Department continues to work to strengthen local land use regulations, including through the 2016 update of the City's critical areas ordinance and 2019 updates to the City's Flood Damage Prevention ordinance.



Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-h. Monitor Mitigation Plan Implementation. The City Planning and Public Works Departments continue to monitor implementation of the Natural Hazards Mitigation Plan through the required annual review process.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-i. Protect Structures. The City Building and Public Works Departments continue to work to protect structures within the City through enforcement of local building codes and critical areas regulations.

Lead Agency	City Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-j. Protect Infrastructure and Critical Facilities. The City Public Works Department continues to work to protect infrastructure and critical facilities, including through regular inspections, annual maintenance projects and capital improvement projects, such as elevating critical facilities above minimum standards.

Lead Agency	Public Works Dept.
Funding Source	Local
Current Status	Ongoing

MU-k. Increase Hazard Education and Risk Awareness. The City Public Works Department continues to work to increase hazard education and risk awareness, including through informational materials included in quarterly newsletters and posted on the City website.

Lead Agency	Public Works Dept.
Funding Source	Local
Current Status	Ongoing



Everson 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

Goal 1. Protect Life, Property and Public Welfare

Goal 2. Increase Public Awareness

Goal 3. Preserve and Enhance Natural Systems

Goal 4. Encourage Partnership for Implementation

Goal 5. Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Everson-Specific Hazard Mitigation Goals

Everson supports the above county-wide goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Everson considered mitigation options related to earthquakes, drought, land subsidence, winter storms, severe wind, and erosion; and especially those related to flooding because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Everson. Some options have already been implemented or are ongoing in Everson, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Everson has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial, and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property, and public



welfare. Everson is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority:	H (High); M (Medium); L (Low)
4	Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source:	Local; State; FEMA; Private; Other
6	Estimated Cost:	Actual; Estimated



Everson Hazard Mitigation Strategy 2021-2025

CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	G-a Ongoing – Adopt and Enforce Building Codes	1	Everson Planning, Building, and Public Works Department	M	O	Local	Staff
Hazard Specific (Reference: <u>Whatcom County Mitigation Ideas</u>)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee Failures	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
(See: Flooding)							
Droughts/Heat Waves	<i>D-a Ongoing – Assess Vulnerability to Drought Risk</i>	1, 5	Planning	M	O	Local	Staff
	<i>D-b Ongoing – Monitor Drought Conditions</i>	1	Public Works	M	O	Local	Staff
	<i>D-c Ongoing – Monitor Water Supply</i>	1	Public Works	M	O	Local	Staff
	<i>D-d Ongoing – Plan for Drought</i>	1, 5	Planning	M	O	Local	Staff
	<i>D-e Ongoing – Require Water Conservation During Drought Conditions</i>	1, 3	Public Works	M	O	Local	Staff
	<i>D-f Ongoing – Educate Residents on Water Saving Techniques</i>	2	City Administration	M	O	Local	Staff
Volcano	VOL-1 Lahar Early Warning System The USGS has designed a number of systems that automatically detect lahars as they descend neighboring valleys. These systems then automatically trigger various types of early warning systems, such as sirens or telephone-based warning systems.	1, 2, 5	Whatcom County Fire District 1, Everson Police Department, Whatcom County Department of Emergency Management,	L	L	Local sources, and state and federal grants	Unknown

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Whatcom County Public Works				
Earthquakes	<i>EQ-a Ongoing – Incorporate Earthquake Mitigation into Local Planning</i>	1	Planning	M	O	Local	Staff
	<i>EQ-2 Ongoing – Map and Assess Community Vulnerability to Seismic Hazards</i>	1	Planning	M	O	Local	Staff
	<i>EQ-c Ongoing – Conduct Inspections for Building Safety</i>	1	City Building Department	M	O	Local	Staff
	<i>EQ-d Ongoing – Protect Critical Facilities and Infrastructure</i>	1	City Building and Public Works	M	O	Local	Staff
	EQ-1 Retrofit or Relocate City Hall, Police Station and Fire District Station The Everson City Hall, Police Station and Whatcom County Fire District 1's station would suffer significant damage in the event of an earthquake. These facilities should be retrofitted, replaced, or relocated so that they can survive a 6.0 magnitude or greater earthquake event.	1, 5	Everson City Councils, Whatcom County Building Department, Whatcom County Fire District 1 Commissioners	H	M	Local sources, and state and federal grants	\$7 Million

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Extreme Temperatures	ET-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Flooding	<i>FL-a Ongoing – Incorporate Flood Mitigation into Local Planning</i>	1, 3	Planning	M	O	Local	Staff
	<i>FL-b Ongoing -- Form Partnerships to Support Floodplain Management</i>	1, 5	Planning and Public Works	M	O	Local	Staff
	<i>FL-c Ongoing -- Limit or Restrict Development in Floodplain Areas</i>	1, 3	City Planning, Building and Public Works Depts.	M	O	Local	Staff
	<i>FL-d Ongoing – Improve Stormwater Management Planning</i>	1, 3	City Planning	M	O	Local	Staff
	<i>FL-e Ongoing -- Improve Flood Risk Assessment</i>	1	Public Works	M	O	Local	Staff
	<i>FL-f Ongoing -- Join or Improve Compliance with NFIP</i>	1	City Planning, Building and Public Works Depts.	M	O	Local	Staff
	<i>FL-g Ongoing -- Manage the Floodplain Beyond</i>	1, 3	City Planning	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>Minimum Requirements</i>		and Building Depts				
	<i>FL-h Ongoing -- Establish Local Funding Mechanisms for Flood Mitigation</i>	1, 3	County Flood Control Zone District	M	O	County	Staff
	<i>FL-i Ongoing -- Improve Stormwater Drainage System Capacity</i>	1, 3	Public Works	M	O	Local	Staff
	<i>FL-j Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1, 3	Public Works	M	O	Local	Staff
	<i>FL-k Ongoing -- Preserve Floodplains as Open Space</i>	1, 2, 4	Planning	M	O	Local	Staff
	FL-1 Mitigate critical facilities in the 100-year floodplain. The Everson City Hall, Police Station and Whatcom County Fire District 1's station are located in the 100-year floodplain. These should be mitigated in place or moved out of the floodplain.	1, 5	Everson City Councils Whatcom County Public Works Department, Whatcom County Fire District 1	H	M	Local sources, and state and federal grants	\$7 Million

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Commissioners				
	FL-2 Purchase Repetitive Loss Properties in the Floodplain There are several properties in the floodplain that have been repeatedly damaged by past flood events. Most of these repetitive loss properties were in Whatcom County's jurisdiction and were purchased by the County.	1, 2, 3, 4	Whatcom County, Everson City Council	M	L	Local sources, and state and federal grants	\$2 Million
Landslide/Erosion/Land Subsidence	<i>SU-a Ongoing -- Map and Assess Vulnerability to Subsidence</i>	1	Planning	M	O	Local	Staff
	<i>SU-b Ongoing -- Manage Development in High-Risk Areas</i>	1	Building Department	M	O	Local	Staff
Lightning	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or						

Priority: H (High); M (Medium); L (Low)	Timeline: S hort-Range (less than 2 years); M id-Range (2-5 years); L ong-Range (more than 5 years); O ngoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	complete.						
Severe Storms	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Severe Wind	<i>SW-a Ongoing -- Protect Power Lines and Infrastructure</i>	1	City Public Works Department	M	O	Local	Staff
	<i>SW-b Ongoing -- Retrofit Public Buildings and Critical Facilities</i>	1	City Public Works Dept	M	O	Local	Staff
Tornadoes	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Tsunami	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Wildfires	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Winter Storms/	<i>WW-a Ongoing -- Protect Buildings and Infrastructure</i>	1	Public Works	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Freezes (Severe Winter Weather)	<i>WW-b Ongoing -- Protect Power Lines</i>	1	Public Works	M	O	Local	Staff
	<i>WW-c Ongoing -- Reduce Impacts to Roadways</i>	1	Public Works	M	O	Local	Staff
Multiple Hazards	<i>MU-a Ongoing -- Assess Community Risk</i>	1	Public Works/Planning	M	O	Local	Staff
	<i>MU-b Ongoing -- Map Community Risk</i>	1	Planning	M	O	Local	Staff
	<i>MU-c Ongoing -- Prevent Development in Hazard Areas</i>	1, 3	Planning and Building Depts.	M	O	Local	Staff
	<i>MU-d Ongoing -- Adopt Development Regulations in Hazard Areas</i>	1	Planning and Building Depts	M	O	Local	Staff
	<i>MU-e Ongoing -- Limit Density in Hazard Areas</i>	1	Planning and Building Depts	M	O	Local	Staff
	<i>MU-f Ongoing -- Integrate Mitigation into Local Planning</i>	1	Planning	M	O	Local	Staff
	<i>MU-g Ongoing -- Strengthen Land Use Regulations</i>	1	Planning	M	O	Local	Staff
	<i>MU-h Ongoing -- Monitor Mitigation Plan Implementation</i>	1	Planning and Public Works	M	O	Local	Staff
	<i>MU-i Ongoing -- Protect Structures</i>	1	Building and	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Public Works Depts				
	MU-j Ongoing -- Protect Infrastructure and Critical Facilities	1	Public Works	M	O	Local	Staff
	MU-k Ongoing -- Increase Hazard Education and Risk Awareness	1	Public Works	M	O	Local	Staff
	MU-1 Mitigate the wastewater treatment plant from hazards. Construct a ring dike, flood wall or otherwise mitigate the wastewater treatment plant against a 100-year flood event or volcanic lahars.	1	Everson Public Works Department	H	S	Local, State, and Federal	\$250,000
	MU-2 Community Early Warning System The City of Everson has an outdated civil defense siren that has not been in service or activated in several years. A new audible warning system located in Everson downtown, Strandell neighborhood, and also the City of Nooksack needs to be constructed. Such an early warning system would typically be a series of sirens that could be triggered in the event the Cities needed to be evacuated, or	1, 2, 5	Whatcom County Fire District 1, Everson Police Department, Everson/Nooksack Public Works	M	L	Local sources, and state and federal grants	\$150,000
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	emergency information disseminated.						
	MU-3 Tone Radio Based Early Warning System Tone Radios turn on when triggered by a central transmitter and then information or instructions are announced over the radio. Such a system is currently used for various types of weather radios, for tornados and severe storms hazard areas. A similar system could be put into place for warning of flooding, lahars, and other related natural hazards.	1, 2, 5	Whatcom County Department of Emergency Management, NOAA Radio		L	Local sources, and state and federal grants	
Advanced Mitigation Projects (Dream List)	Earthquake Early Warning System Such a system could warn residence of an impending earthquake. Technology doesn't currently exist for such a system, but will likely be possible in the future.	1, 2, 5	Federal, State, County, and local entities	L	L	Local sources, and state and federal grants	Unknown
	Cell Phone-Based Early Warning System. A computerized early warning system that automatically dials each landline telephone number within a specified area, and play a recorded message when the phone is answered is currently provided to the City by the Whatcom County Sheriff's Office Division of	1, 2, 5	WCDEM/LFD	M	M	Local sources, and state and federal grants	Unknown

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF EVERSON IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally licensed COG would help to address a variety of natural and manmade problems.						
	Purchase Repetitive Loss Properties	1, 2, 4	Whatcom County, Everson City Council	M	L	Local sources and state and federal grants	\$2 Million
	Mitigate City Hall, Police Station and Fire Station against 100-year flood event or volcanic lahar	1, 5	Everson City Councils, Whatcom County Building Department, Whatcom County Fire District 1 Commissioners	H	M	Local sources, and state and federal grants	\$7 Million

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Everson Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Everson Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
GENERAL: ALL HAZARDS						
<i>G-a. Adopt and enforce building codes.</i>						
Add New Action Items if Applicable						
DAM/LEVEE FAILURES						
Add New Action Items if Applicable						
DROUGHTS/HEAT WAVES						
<i>D-a. Assess Vulnerability to Drought Risk.</i>						
<i>D-b. Monitor Drought Conditions.</i>						
<i>D-c. Monitor Water Supply.</i>						
<i>D-d. Plan for Drought.</i>						
<i>D-e. Require Water Conservation During Drought Conditions.</i>						
<i>D-f. Educate Residents on Water Saving Techniques.</i>						
EARTHQUAKES						
<i>EQ-a. Incorporate Earthquake Mitigation into Local Planning.</i>						
<i>EQ-b. Map and Assess Community Vulnerability to Seismic Hazards.</i>						
<i>EQ-c. Conduct Inspections of Building Safety.</i>						
<i>EQ-d. Protect Critical Facilities and Infrastructure.</i>						
EQ-1 Retrofit City Hall						
Add New Action Items if Applicable						
VOLCANO						



City of Everson Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
VOL-1 Lahar Early Warning System						
Add New Action Items if Applicable						
FLOODING						
FL-a. Incorporate Flood Mitigation in Local Planning.						
FL-b. Form Partnerships to Support Floodplain Management.						
FL-c. Limit or Restrict Development in Floodplain Areas.						
FL-d. Improve Stormwater Management Planning.						
FL-e. Improve Flood Risk Assessment.						
FL-f. Join or Improve Compliance with NFIP.						
FL-g. Manage the Floodplain Beyond Minimum Requirements.						
FL-h. Establish Local Funding Mechanisms for Flood Mitigation.						
FL-i. Improve Stormwater Drainage System Capacity						
FL-j. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures.						
FL-k. Preserve Floodplains as Open Space.						
FL-l. Mitigate Riverside Park from flooding.						
FL-1 Mitigate critical facilities in the 100-year floodplain.						
FL-2 Purchase Repetitive Loss Properties in the Floodplain						
Add New Action Items if Applicable						



City of Everson Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
LANDSLIDES/EROSION						
<i>Add New Action Items if Applicable</i>						
LAND SUBSIDENCE						
<i>SU-a. Map and Assess Vulnerability to Subsidence.</i>						
<i>SU-b. Manage Development in High-Risk Areas.</i>						
<i>Add New Action Items if Applicable</i>						
TORNADOES						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						
<i>Add New Action Items if Applicable</i>						
WILDFIRES						
<i>Add New Action Items if Applicable</i>						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
<i>WW-a. Protect Buildings and Infrastructure.</i>						
<i>WW-b. Protect Power Lines.</i>						
<i>WW-c. Reduce Impacts to Roadways.</i>						
<i>Add New Action Items if Applicable</i>						
EXTREME TEMPERATURES						
<i>Add New Action Items if Applicable</i>						
LANDSLIDE						
<i>Add New Action Items if Applicable</i>						



City of Everson Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
LIGHTNING						
<i>Add New Action Items if Applicable</i>						
SEVERE WIND						
<i>SW-a. Protect Power Lines and Infrastructure.</i>						
<i>SW-b. Retrofit Public Buildings and Critical Facilities.</i>						
<i>Add New Action Items if Applicable</i>						
MULTIPLE HAZARDS						
<i>MU-a. Assess Community Risk.</i>						
<i>MU-b. Map Community Risk.</i>						
<i>MU-c. Prevent Development in Hazard Areas.</i>						
<i>MU-d. Adopt Development Regulations in Hazard Areas.</i>						
<i>MU-e. Limit Density in Hazard Areas.</i>						
<i>MU-f. Integrate Mitigation into Local Planning.</i>						
<i>MU-g. Strengthen Land Use Regulations.</i>						
<i>MU-h. Monitor Mitigation Plan Implementation.</i>						
<i>MU-i. Protect Structures.</i>						
<i>MU-j. Protect Infrastructure and Critical Facilities.</i>						
<i>MU-k. Increase Hazard Education and Risk Awareness.</i>						
<i>MU-1 Mitigate the wastewater treatment plant from hazards.</i>						
<i>MU-2 Community Early Warning System</i>						
<i>MU-3 Tone Radio Based Early Warning System</i>						



City of Everson Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						



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CITY OF FERNDALE

Contact Information

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Ferndale, WA 98248
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Approving Authority

Mayor Greg Hansen & City Council Members

2095 Main Street
Ferndale, WA 98248
(360) 685-2350

Planning Process

The City of Ferndale process of reviewing, updating, and adopting the 2021 update of the Whatcom County Natural Hazard Mitigation Plan (NHMP or Plan) included review by the Public Information Officer, the Ferndale Police Department, and the City Administrator, in addition to consultation with other relevant City personnel. The City Administrator audited Ferndale's existing emergency planning material relating to Natural Hazard Mitigation and sought feedback from other City resources prior to adoption.

Ferndale always seeks to use the best possible information when planning for capital facilities, growth management and emergency planning. The material provided in the NHMP can be used as part of the decision-making process to ensure that our public facilities, city residents and private businesses are as safe as possible, and the public is aware of potential impacts of natural hazards.

Key Contributor List

- Jori Burnett, City Administrator
- Tim Orsino, Public Works and Community Development Department Clerk



The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the City of Ferndale will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive Plan;
- Critical areas ordinance;
- Comprehensive Stormwater Plan;
- Comprehensive Emergency Management Plan (CEMP)
- Geographic Information Systems (GIS) mapping
- City Facility Planning

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for City of Ferndale

The City of Ferndale will continue to engage with the public to update and improve their Natural Hazard Mitigation Plan. The City has organized a volunteer citizen group, the Ferndale Emergency Response Network (FERN) that meets on a regular basis to receive training and provide feedback on our emergency hazard response.

The City also engages with the public through social media network where one in every four Ferndale residents is following the City's updates. The City regularly distributes emergency preparedness information through these channels and have been recognized by neighboring jurisdictions as a model for the distribution of electronic information in real time.

The feedback the City receives through its volunteer groups and engagement on social media will be used to update and maintain the Natural Hazard Mitigation Plan.



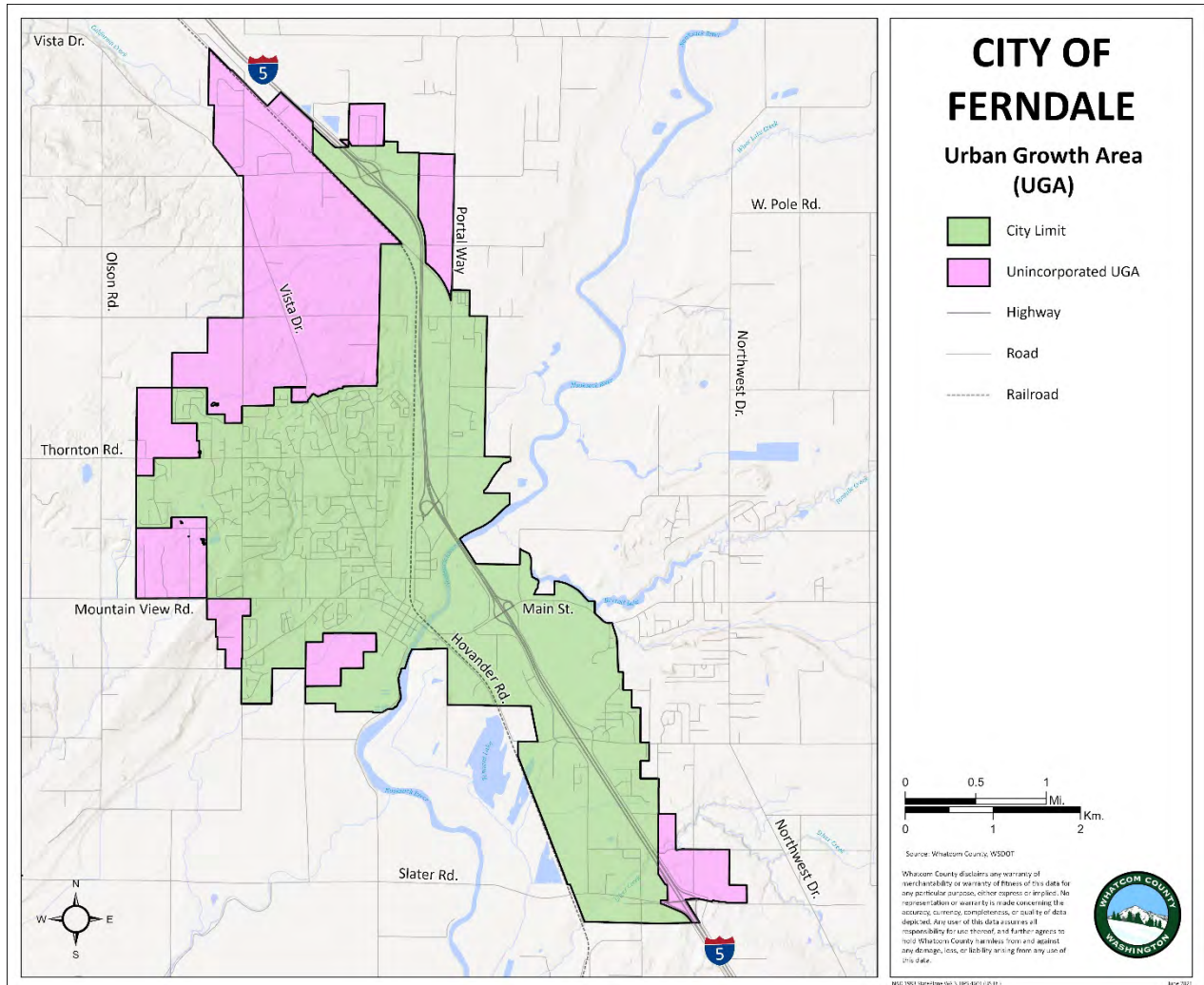
Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	Yes	FERN (Ferndale Emergency Response Network) is a group of community members focused on community emergency response and training.
Ongoing public education or information programs	Yes	Educate property owners about flood mitigation techniques. The City produces educational videos on a regular basis and distributes them online via social media and the City's website.
School-related programs for natural hazard safety		
Public education or information program	Yes	The City provides seasonal videos, utility bill inserts, and social media campaigns associated with natural hazards such as flood, snow, etc.
StormReady certification	No	
Firewise Community certification	No	
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		



Growth Trends

This map displays the UGA for the City of Ferndale, as designated by the Whatcom County Comprehensive Plan.





Presence of Hazards and their Impacts in the City of Ferndale

The City of Ferndale continues to grow at a rapid rate, gaining nearly 2,000 residents in the last five years. While much of this growth continues to follow historic trends of single-family residential development in the northwestern portion of the City, significant increases in both single family and multifamily construction along Portal Way, LaBounty Drive, and surrounding the Downtown core have also contributed to this growth.

From a hazards planning perspective, this increased density makes some hazard mitigation easier, as emergency services have easier access to larger populations, and multifamily development near the city core means that City services are accessible by foot or mass transit in the event of a large-scale weather event.

As the community moves forward, the Hazard Mitigation plan will be considered in land use decisions to better-ensure that the City's population is adequately protected from, and has the means to escape, natural hazards.

In the table below is a list of the major hazards that affect Whatcom County. The second column provides the percentage of Ferndale's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	100%	Moderate	The majority of the City of Ferndale is expected to experience strong shaking intensity during an earthquake. Properties within the historic stream channel of the Nooksack River may experience additional damage due to the nature of soils in the area (see liquefaction, below), and there is the potential that hillside properties may experience localized landslides due to topography and high clay content in soils. However, the relatively low profile of existing buildings in these areas, combined with higher earthquake protection standards for new, taller buildings, is expected to limit overall damage as compared to high density areas with a significant stock of tall, older (brick and masonry) structures.
	Liquefaction	99.3%	Moderate	The Nooksack River valley (the historic stream channel of the Nooksack River) includes deposits of soils that are considered seismically sensitive and are conducive to liquefaction in a significant seismic event. While liquefaction may be mitigated through various design approaches, the brick and masonry construction of the City's downtown makes these structures more-susceptible to liquefaction, as compared to wood-frame construction or deep-foundation/pier foundation construction, which provides additional flexibility during a seismic event, and/or is anchored to deeper, stable soils and rock. The low-profile construction of the City's downtown significantly (but does not totally) mitigates the overall risk of liquefaction, though individual structures may be highly susceptible.
	Landslide	0.08%	Low	Localized landslides are possible during significant rain events and seismic activity, but will generally be limited to portions of individual properties adjacent to steep slopes.



	Volcano	27.5%	High	Low-lying areas adjacent to the Nooksack River are at risk from a Mount Baker lahar. While such an event is expected to be exceedingly rare, it also has the potential to be extraordinarily impactful on a regional level. Direct impacts to the City of Ferndale will likely occur at or around the Nooksack River as a result of a lahar. However, additional impacts to transportation networks, emergency services, weather, climate, and tourism may all have an impact on Ferndale and surrounding areas.
	Tsunami	13.6%	Low	The southern portion of Ferndale, outside the city limits, is subject to tsunami risk. Tsunamis in this region are exceedingly rare but could be extraordinarily damaging. A major tsunami may impact low-lying areas to the south and west of Ferndale and may disrupt transportation networks. Further, the City may be asked to provide temporary shelter for displaced persons from affected areas.
	Mine Hazards	0%	None	There are no historic mine locations within the City limits.
Hydro-logical	Flooding	19.9%	High	Portions of the City are subject to Nooksack River floods, causing temporary and limited disruptions on an annual or near-annual basis. Moderate flood events causing limited but not necessarily repetitive private property damage have occurred approximately four times from 1990-2021, and have the potential to occur multiple times in one flood season. More-significant (modeled 50-year or higher) flood events will cause major transportation disruptions and moderate damage to private property. 100-year or higher flood events have the potential to cause major transportation disruptions and potential damage to



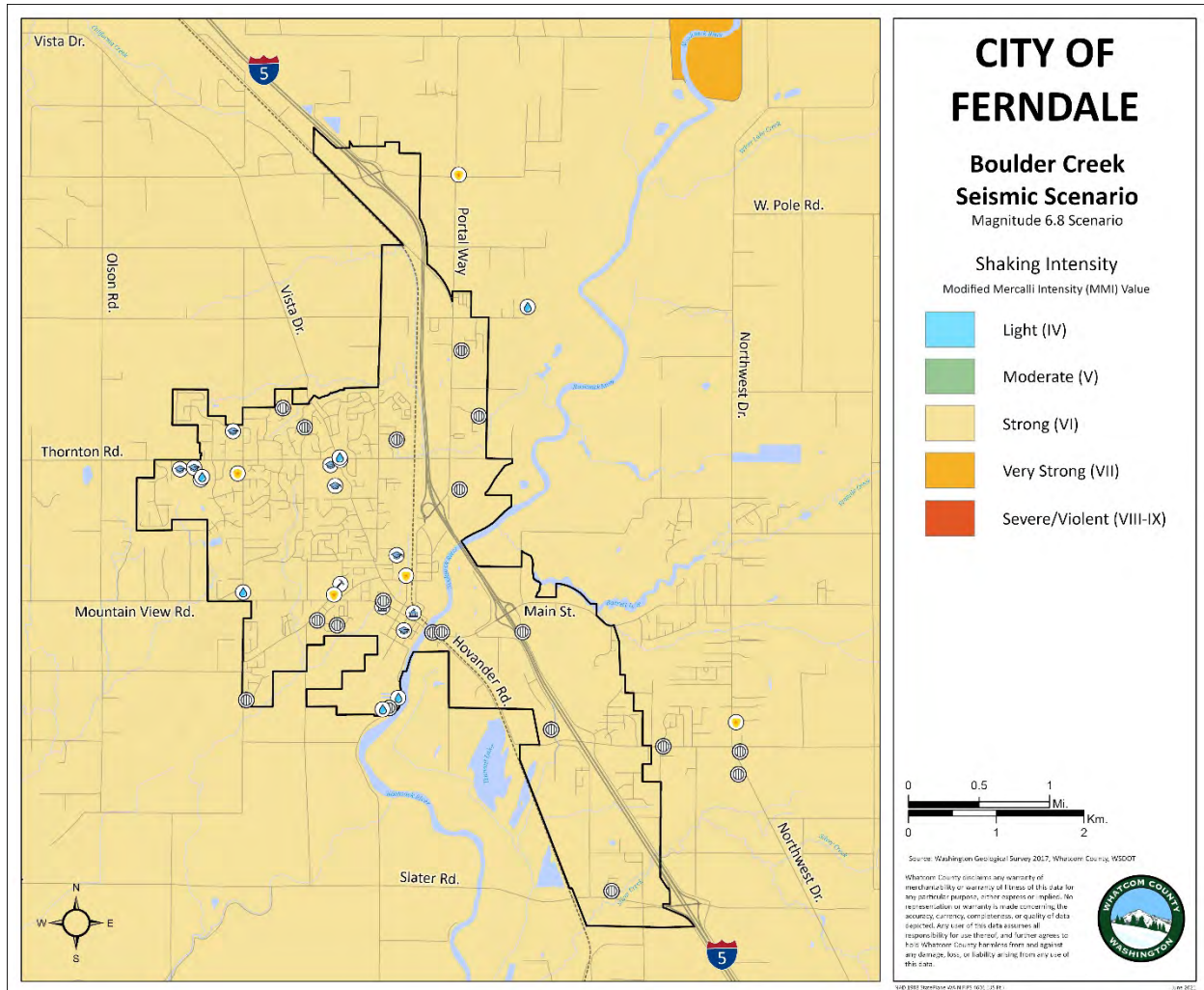
				<p>transportation corridors, as well as widespread damage within the modeled floodplain, generally impacting the Main Street corridor, Downtown Ferndale, the southern portion of the Griffintown Neighborhood, Smith Road, and other localized areas. The near-annual closer of Slater Road for flood-related reasons has a significant impact on Ferndale traffic as well as the mainline of Interstate Five, though these detours are usually temporary in nature.</p> <p>Coastal flooding or storm surges will not impact the City of Ferndale, although displaced persons from these events may choose to shelter in Ferndale.</p>
Meteoro logical	Wildfire	63.1%	Low	Residential homes are at moderate risk of wildfires.

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

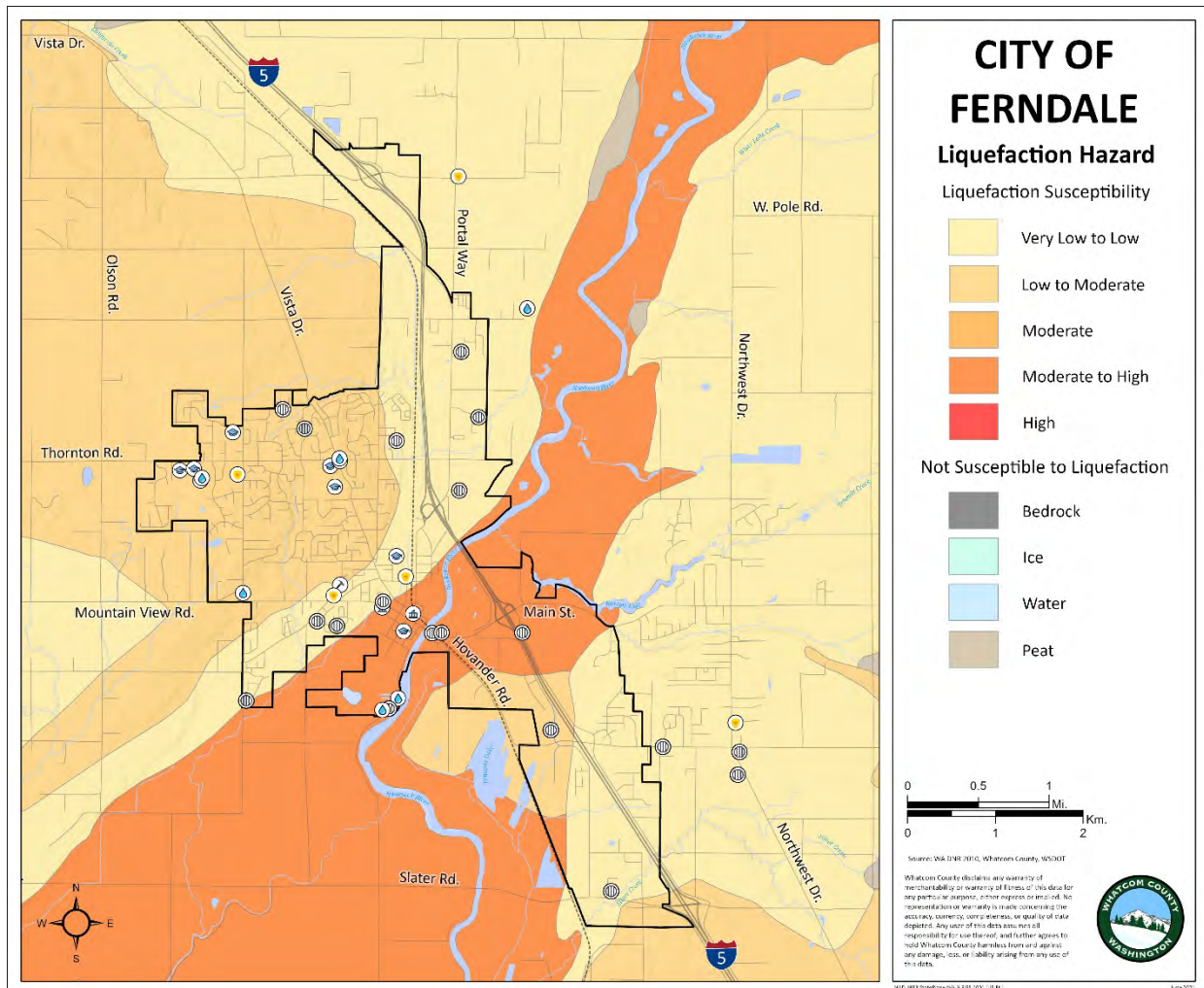


Natural Hazard Maps

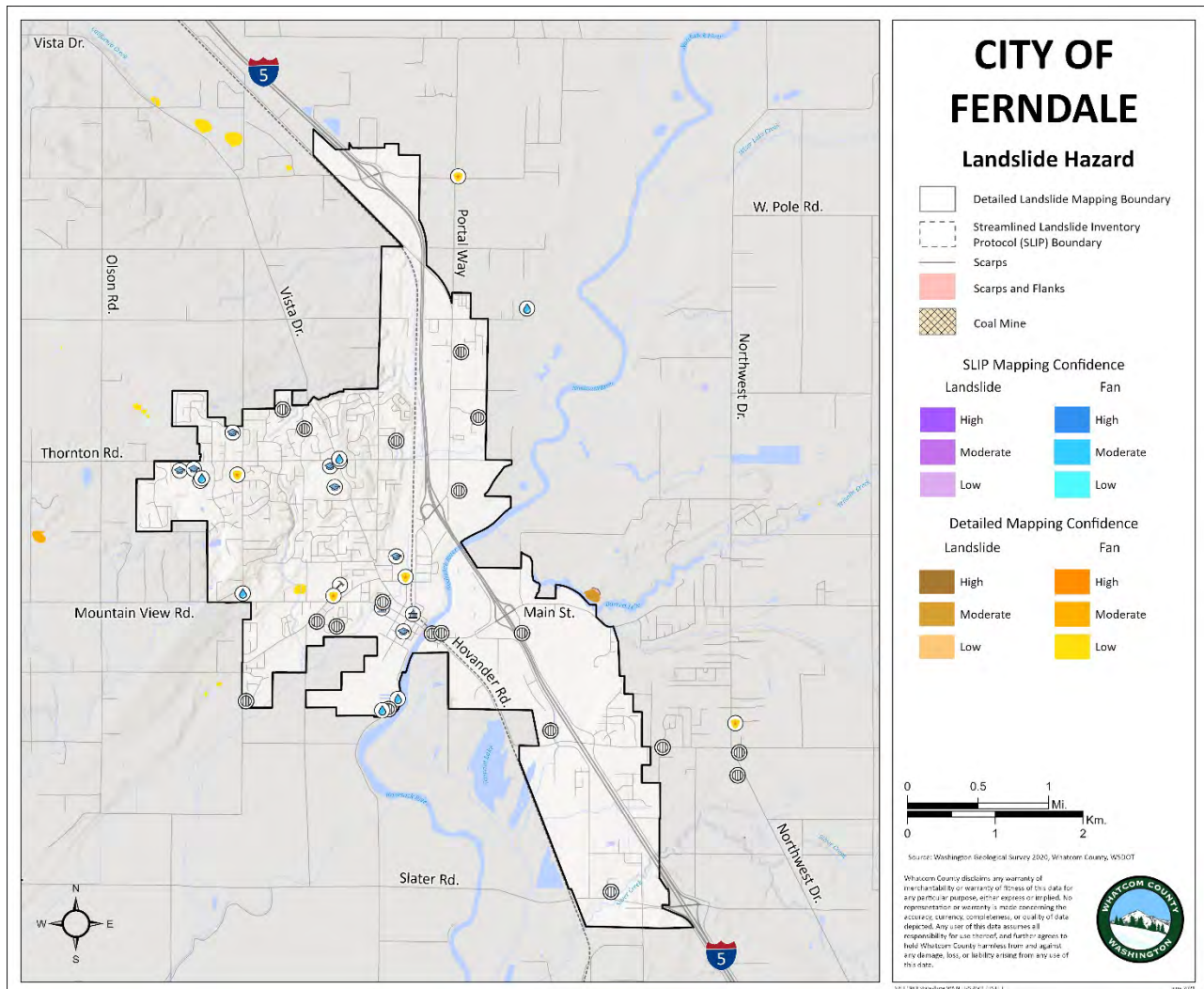
The following figures depict the natural hazards present within the jurisdiction.



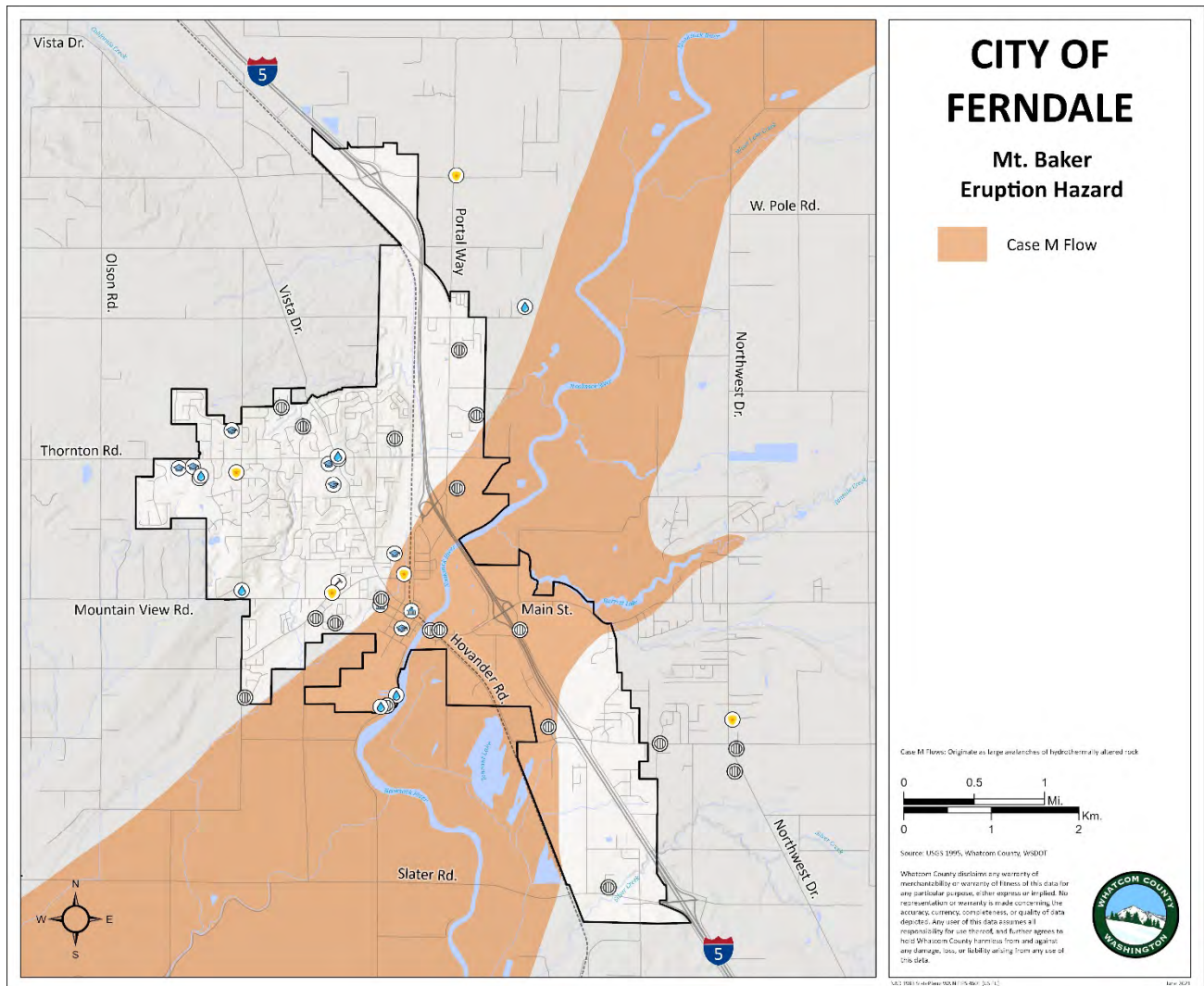
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



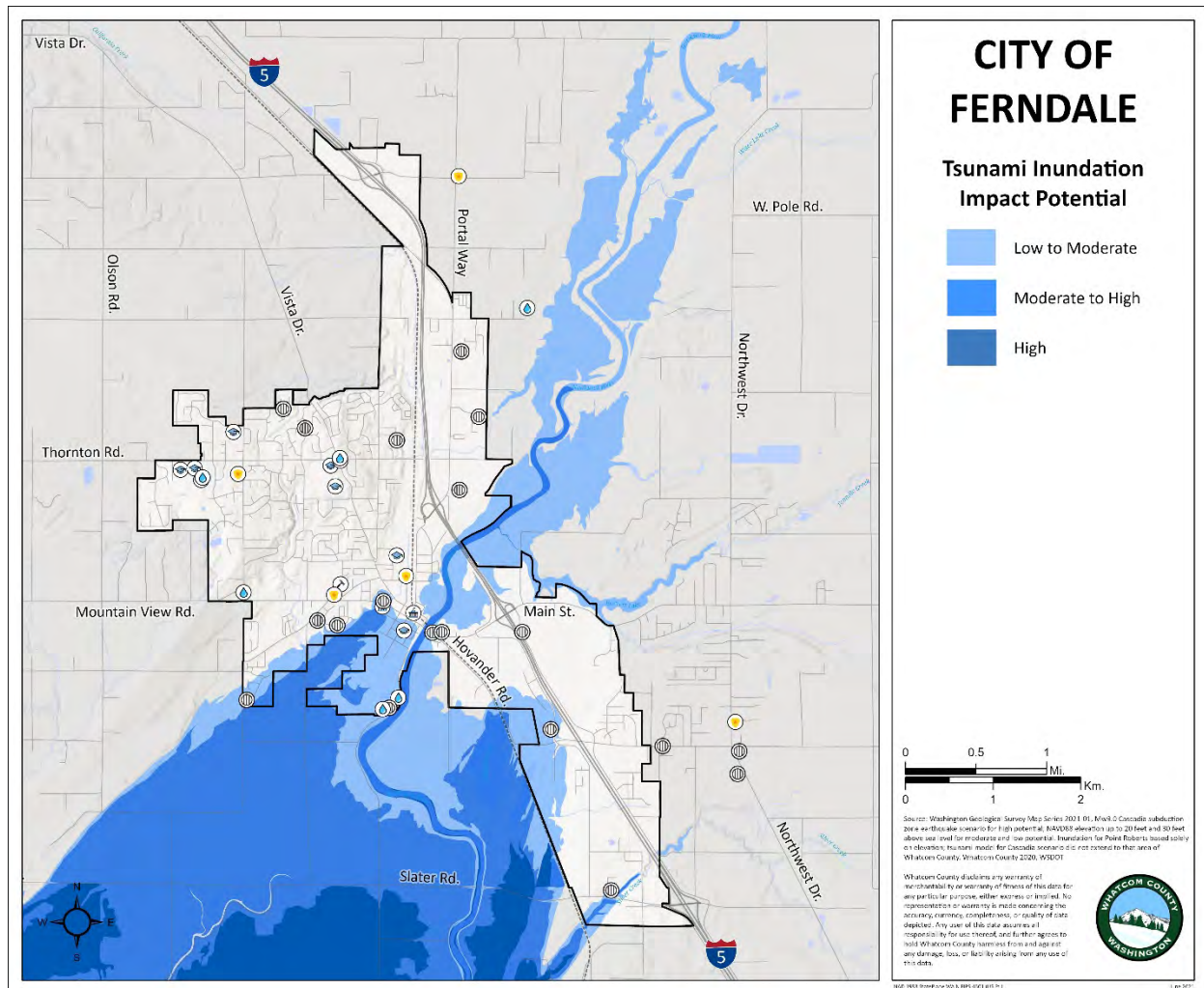
Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



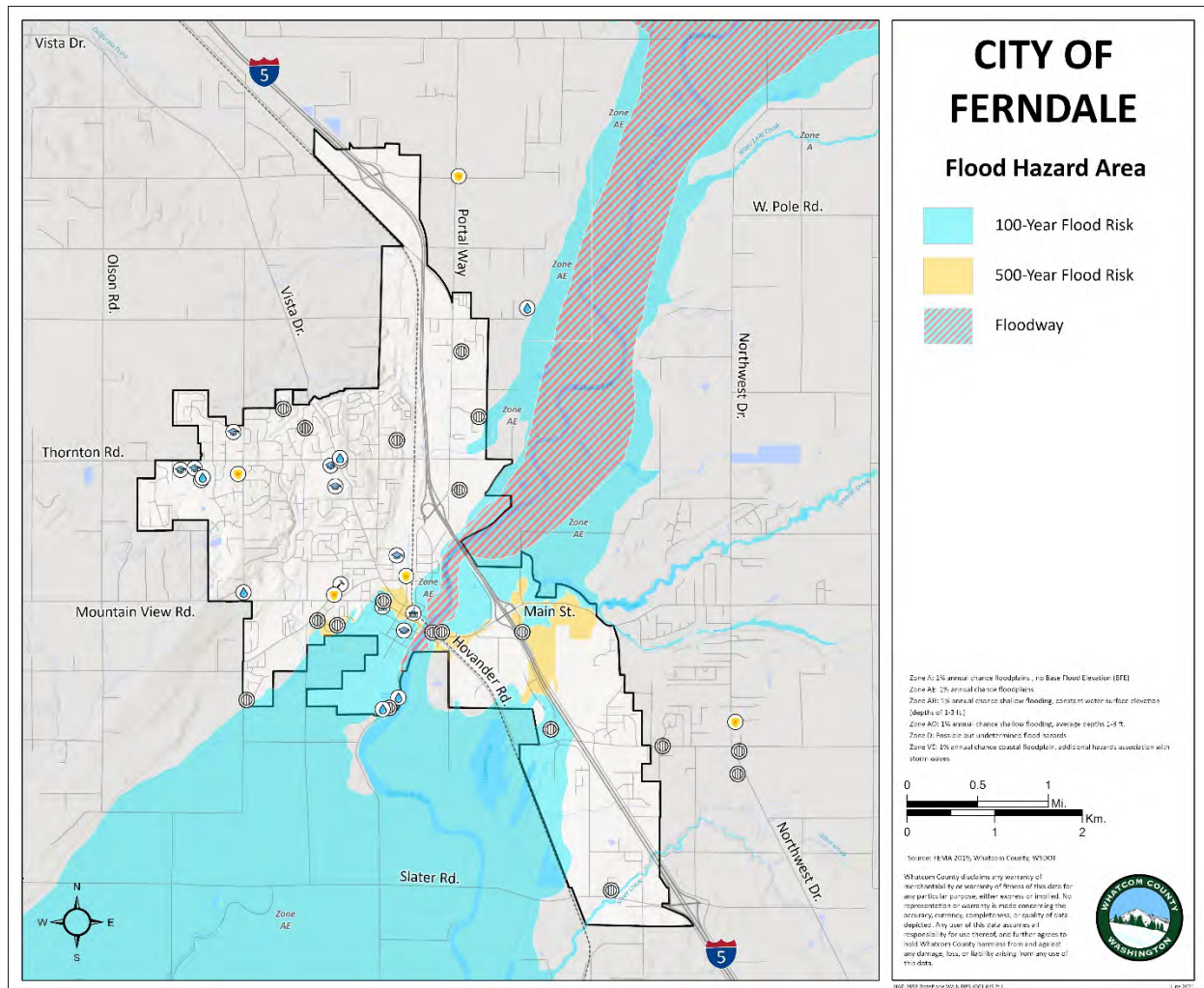
Washington Geological Survey (WGS) 2020 Washington landslide inventory data compiled following streamline landslide mapping protocol (SLIP). SLIP was developed by the WGS's Landslide Hazards Program to help geologists rapidly map landslide landforms from lidar. This data shows both detailed mapping and SLIP landslide data.



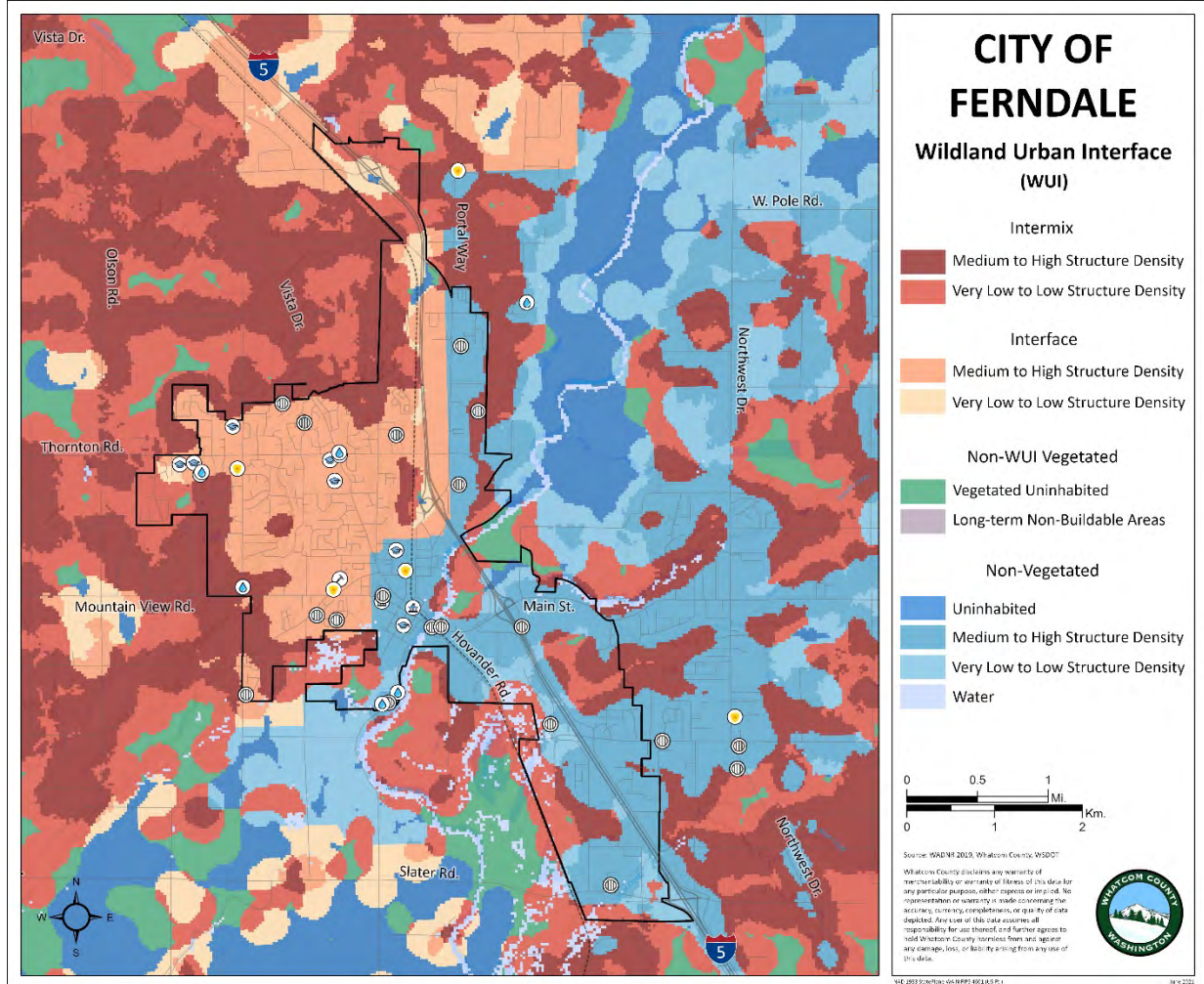
USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



Map of Ferndale tsunami inundation impact potential. The high impact potential zone is based upon Washington Geological Survey Map Series 2021-01, Mw9.0 Cascadia subduction zone earthquake scenario occurring at mean high tide. The moderate to high and the low to moderate impact potential areas are based upon elevation of up to 20 feet and 30 feet, respectively, above mean sea level (NAVD88). Inundation for Point Roberts is based solely on elevation; tsunami model for the Cascadia subduction zone scenario did not extend to Point Roberts.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.



The City of Ferndale's Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Phillips 66 Refinery	HPL	3	3901 Unick Road		The Phillips 66 Refinery is located to the west of the City of Ferndale and is one of the major west coast refineries, producing gasoline and diesel fuels for distribution across the Pacific Northwest and beyond. The facility is also one of the major sources of employment in Northwest Washington. Damage or destruction of the facility has the potential for impacts to the environment, the local economy, and the regional economy, should the production of fuel be interrupted or significantly reduced for an extended period of time. The machinery and equipment is considered of very high dollar value.
Ferndale City Hall	EF	2	2095 Main Street		With the exception of police and Municipal Court services, City Hall is the location for the operational control of all other City functions for the City of Ferndale, including undigitized current records storage. With sufficient advance notice, all or most City Hall functions may be performed remotely for an extended period of time.
Ferndale City Shop	LUS	3	5735 Legoe Avenue		Acts as the location for City maintenance crews, maintenance fleet, and maintenance supplies. The maintenance fleet and equipment itself are considered high value. Damage or destruction of the



					facility and the fleet would significantly limit the City's ability to respond to infrastructure maintenance, including repairs caused by natural disasters.
City Hall Annex	EF	2	5694 Second Avenue		The City Hall Annex/ Ferndale Municipal Court/ City Council Chambers serves as the location for a variety of City and community functions. The space acts as the location for the Ferndale Municipal Court and jury trials, is utilized by the City Council and other boards and commissions for meetings and hearings, and provides space for the Community Service Cooperative. The Annex is also used for long-term storage of City records.
Ferndale Police Station	EF	3	2220 Main Street		The Ferndale Police Station is the location for the City's law enforcement services, including police vehicles, records storage, municipal court offices and storage, and the City's Emergency Operations Center. The police department fleet is considered to be of high value. Damage or destruction to the facility, particularly the EOC, would limit the City's ability to operate an EOC.
PUD #1 Water Plant #2	LUS	3	1705 Trigg Road		Between its two water plants, the Public Utilities District provides industrial grade (non-potable) water to the Cherry Point Industrial Area as well as irrigation water to approximately 50 customers. The PUD also provides potable water and fire protection to large light-industrial users at



					<p>Grandview Road and Interstate Five. In total the PUD treats and delivers approximately 5.4 billion gallons of water per year. Disruption to the PUD's treatment facilities as the result of a natural disaster would have a direct and immediate impact on its customers, with the most significant impact occurring at Cherry Point. Additionally, disruption to the PUD's conveyance system as a result of a major disaster could have a similar impact.</p>
PUD #2 Water Plant #1	LUS	3	5431 Ferndale Road		<p>Between its two water plants, the Public Utilities District provides industrial grade (non-potable) water to the Cherry Point Industrial Area as well as irrigation water to approximately 50 customers. The PUD also provides potable water and fire protection to large light-industrial users at Grandview Road and Interstate Five. In total the PUD treats and delivers approximately 5.4 billion gallons of water per year. Disruption to the PUD's treatment facilities as the result of a natural disaster would have a direct and immediate impact on its customers, with the most significant impact occurring at Cherry Point. Additionally, disruption to the PUD's conveyance system as a result of a major disaster could have a similar impact.</p>
Ferndale High School	EF	2	5830 Golden Eagle Drive		<p>Largest school in Whatcom County</p>



			PO Box 428 Ferndale WA 98248		Grades 9-12
Horizon Middle School	EF	2	2671 Thornton Road PO Box 1769 Ferndale WA 98248		Grades 6-8
Vista Middle School	EF	2	6051 Vista Drive PO Box 1328 Ferndale WA 98248		Grades 6-8
Beach Elementary School	EF	2	3786 Centerview Road, Lummi Island, WA 98262		Outside of Ferndale's city limits.
Cascadia Elementary School	EF	2	6175 Church Road PO Box 2009 Ferndale WA 98248		
Central Elementary School	EF	2	5610 Second Avenue PO Box 187 Ferndale WA 98248		Within the 100-year floodplain.
Custer Elementary School	EF	2	7660 Custer School Road Custer WA 98240		Outside of Ferndale's city limits.
North Bellingham Elementary	EF	2	5275 Northwest Dr, Bellingham, WA 98226		Outside of Ferndale's city limits.
Eagleridge Elementary School	EF	2	2651 Thornton Road PO Box 1127 Ferndale WA 98248		
Skyline Elementary School	EF	2	2225 Thornton Road PO Box 905 Ferndale WA 98248		
Sewer Pump Station #21	LUS	2	(Ariel Court)		The pump station facilitates the conveyance of wastewater (sewer) from low lying areas in the southwestern portion of the City to the City's wastewater treatment plant



					on Ferndale Road.
Sewer Pump Station #10	LUS	2	NW Corner of Aquarius & Apollo Drive		The pump station facilitates the conveyance of wastewater (sewer) from residential neighborhoods west of the hillside summit in north-central Ferndale to the City's wastewater treatment plant on Ferndale Road.
Sewer Pump Station #11	LUS	2	6156 Unrein Drive		The pump station facilitates the conveyance of wastewater (sewer) from low lying residential and commercial/industrial areas north of Thornton Street to the City's wastewater treatment plant on Ferndale Road.
Sewer Pump Station #12	LUS	2	5217 Northwest Drive		The pump station facilitates the conveyance of wastewater (sewer) from unincorporated areas east of the City limits to the City's wastewater treatment plant on Ferndale Road. The City's extension of utilities to this area serves public (Whatcom County) uses and is not intended for the use of additional private customers, consistent with the Growth Management Act (GMA).
Sewer Pump Station #15	LUS	2	Smith Road & Bellaire		The pump station facilitates the conveyance of wastewater (sewer) from unincorporated areas east of the City limits to the City's wastewater treatment plant on Ferndale Road. The City's extension of utilities to this area serves public (Whatcom County) uses and is not intended for the use of additional private customers, consistent with the Growth Management Act (GMA).



Sewer Pump Station #16	LUS	2	6006 Portal Way		The pump station facilitates the conveyance of wastewater (sewer) from areas east of Portal Way that are below the elevation of the sewer mainline within Portal Way.
Sewer Pump Station #17	LUS	2	1350 Slater Road		The pump station facilitates the conveyance of wastewater (sewer) from commercial and industrial properties on Slater Road.
Sewer Pump Station #18	LUS	2	Nicholas Drive		The pump station facilitates the conveyance of wastewater (sewer) from residential properties in low-lying areas north of Thornton Street.
Sewer Pump Station #2	LUS	3	N. of 1951 Main Street & Nooksack River		The pump station facilitates the conveyance of wastewater (sewer) from Main Street properties east of the Nooksack River. In a flood event, Pump Station #2 also serves to pump water from the immediate vicinity for the purpose of preserving Main Street as a navigable roadway during a flood event.
Sewer Pump Station #3	LUS	2	N. of 5610 Barrett Road		The pump station facilitates the conveyance of wastewater (sewer) from commercial and industrial properties along Barrett Road.
Sewer Pump Station #4	LUS	2	5345 LaBounty Drive		The pump station facilitates the conveyance of wastewater (sewer) from commercial and industrial properties on LaBounty Drive.
Sewer Pump Station #5	LUS	2	5280 Northwest Road		The pump station facilitates the conveyance of wastewater (sewer) from unincorporated areas east of the City limits to the City's wastewater treatment plant on Ferndale Road. The City's extension of utilities to this area serves public (Whatcom County) uses



					and is not intended for the use of additional private customers, consistent with the Growth Management Act (GMA).
Sewer Pump Station #6	LUS	2	5336 Poplar Drive		The pump station facilitates the conveyance of wastewater (sewer) from low-lying residential properties in a residential neighborhood.
Sewer Pump Station #7	LUS	2	2090 Main Street		The pump station facilitates the conveyance of wastewater (sewer) from low-lying commercial properties on Main Street.
Storm Sewer Pump Station #8	LUS	2	1920 Main Street		The pump station facilitates the conveyance of wastewater (sewer) from commercial and industrial properties on LaBounty Drive.
Sewer Pump Station #20	LUS	2	1820-1821 McKinley Court		The pump station facilitates the conveyance of wastewater (sewer) from residential properties east of Portal Way
Sewer Pump Station # 9	LUS	2	6400 Portal Way		The pump station facilitates the conveyance of wastewater (sewer) from residential and commercial properties east of Portal Way
Tenaska Cogeneration Plant	LUS	2	5105 Lake Terrell Road		The facility, located adjacent to the Phillips 66 Refinery, utilizes natural gas-power turbines as well as a steam-driven turbine generating power from the steam exhaust resulting from the gas-powered turbines. The resulting power is then distributed through Puget Sound Energy's distribution system.
Petro Gas	LUS	2	4100 Unick Road		The Ferndale Terminal including a deep water dock serves as a storage and distribution facility for bulk shipments of LPG by railcar,



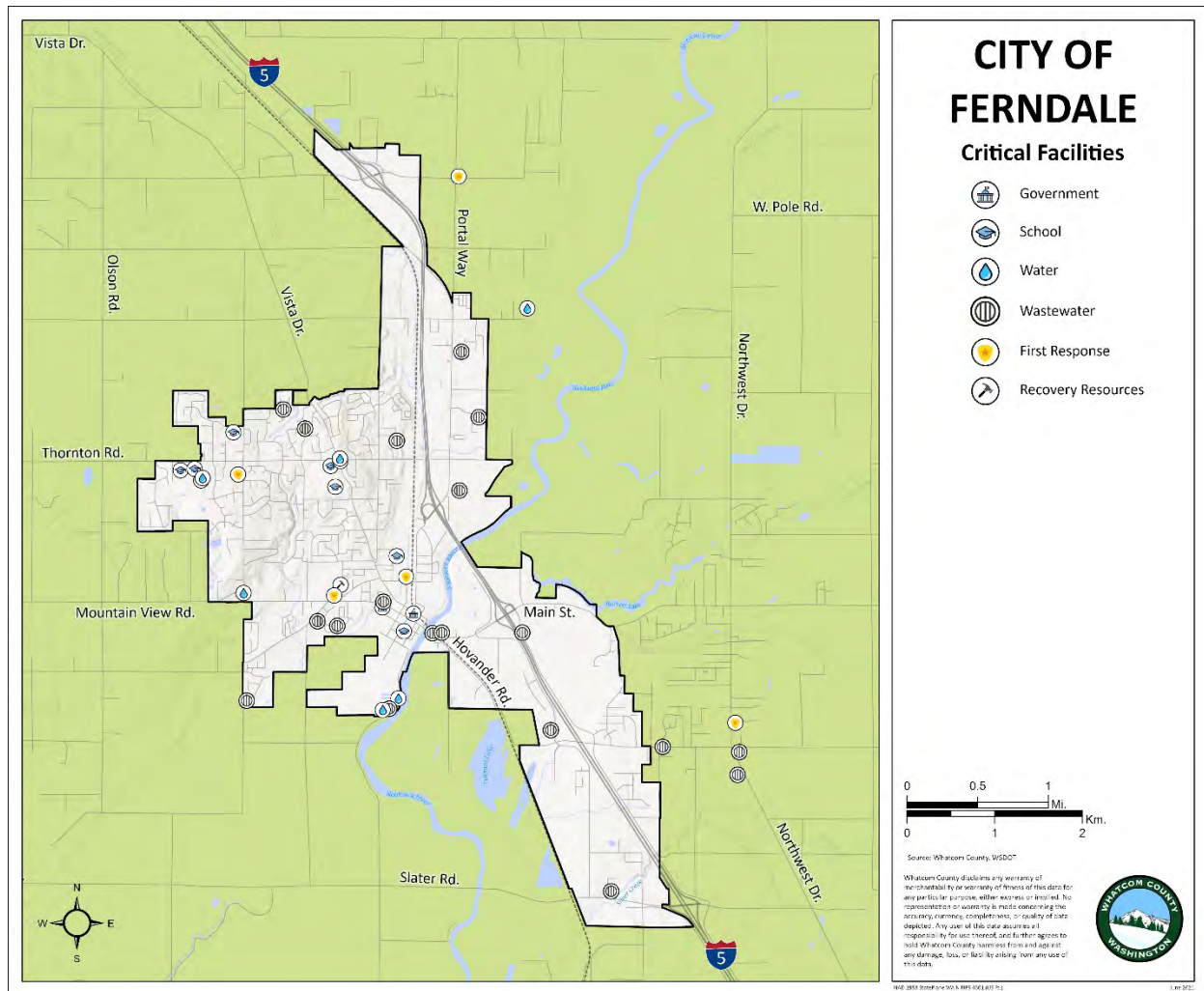
					tank truck, pipeline, and ship.
Waste Water Treatment Plant	LUS	3	5389 Ferndale Road		<p>The City's wastewater (sewer) treatment plant is located west of the Nooksack River and was significantly expanded 2020-2022. The treatment plant serves all City utility customers and has the capacity to serve planned growth within the twenty-year period. The plant is located adjacent to the Nooksack River, and treated wastewater is discharged to the river. The plant is within the 100-year floodplain of the Nooksack River and is susceptible to flood events. The redesign and expansion of the plant has raised the interior of structures above the Base Flood Elevation, but settling ponds and other equipment remain below the Base Flood Elevation. This means that the plant is susceptible to flood damage and that there is the potential for impacts to the environment as a result of flooding, and an interruption of service. For these reasons, the City's wastewater and water treatment plants are considered the highest priority for City facilities, especially in response to hazards originating from the Nooksack River.</p>
City's Water Treatment Plant	LUS	3	5389 Ferndale Road		<p>The City's Water Treatment Plant is located adjacent/on the same property as the aforementioned Waste Water Treatment Plant.</p>
Water Pump Station #1	LUS	2	2195 Thornton Street		<p>The pump station facilitates the conveyance of wastewater (sewer) from residential and</p>



					school district properties in the vicinity of Thornton Street and Vista Drive
Water Pump Station #2	LUS	2	2601 Thornton Street		The pump station facilitates the conveyance of wastewater (sewer) from residential properties in the vicinity of Church Street and Thornton Street
Water Pump Station #3	LUS	2	5727 Church Street		The pump station facilitates the conveyance of wastewater (sewer) from residential and school district properties in the vicinity of Church Street
Water Tank #1	LUS	2	Vista Drive & Thornton Street		Water Tank 1 provides potable water to the surrounding community at a strategic location owned by the City, utilizing gravity to feed nearby water consumers.
Water Tank #2	LUS	2	2601 Thornton Street		Water Tank 2 provides potable water to the surrounding community at a strategic location owned by the City, utilizing gravity to feed nearby water consumers.
WCFD 7 St. 1 Ferndale	EF	3	2020 Washington Street		
WCFD7 St. 2 Whitehorn	EF	3	4047 Brown Road		
WCFD7 St. 3 N. Bellingham	EF	3	5368 Northwest Road		
WCFD7 St. 4 Kohen Road	EF	3	5491 Grandview Road		
WCFD7 St. 5 Enterprise	EF	3	1886 Grandview Road		
WCFD7 St. 6 Church Road	EF	3	6081 Church Road		

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Map of critical facilities identified by the City of Ferndale. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the City of Ferndale

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)



Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.

Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Phillips 66 Refinery	HPL	3	1	1	0	0	0	0	0	1	0.39
Ferndale City Hall	EF	2	1	1	0	1	0	1	0	0	0.41
Ferndale City Shop	LUS	3	1	1	0	0	0	0	0	1	0.39
City Hall Annex	EF	2	1	1	0	0	0	0	0	0	0.17
Ferndale Police Station	EF	3	1	1	0	0	0	0	0	1	0.39
PUD #1 Water Plant #2	LUS	3	1	1	0	0	0	0	0	0	0.26
PUD #2 Water Plant #1	LUS	3	1	1	0	1	1	1	0	0	0.86
Ferndale High School	EF	2	1	1	0	0	0	0	0	0	0.17
Horizon Middle School	EF	2	1	1	0	0	0	0	0	1	0.26
Vista Middle School	EF	2	1	1	0	0	0	0	0	1	0.26
Beach Elementary School	EF	2	1	1	0	0	0	0	0	1	0.26
Cascadia Elementary School	EF	2	1	1	0	0	0	0	0	1	0.26
Central Elementary School	EF	2	1	1	0	1	1	1	0	0	0.58
Custer Elementary School	EF	2	1	1	0	0	0	0	0	1	0.26
North Bellingham Elementary	EF	2	1	1	0	0	0	0	0	0	0.17
Eagleridge Elementary School	EF	2	1	1	0	0	0	0	0	1	0.26
Skyline Elementary School	EF	2	1	1	0	0	0	0	0	1	0.26
Sewer Pump Station #21	LUS	2	1	1	0	0	0	0	0	1	0.26



Sewer Pump Station #10	LUS	2	1	1	0	0	0	0	0	1	0.26
Sewer Pump Station #11	LUS	2	1	1	0	0	0	0	0	1	0.26
Sewer Pump Station #12	LUS	2	1	1	0	0	0	0	0	0	0.17
Sewer Pump Station #15	LUS	2	1	1	0	0	0	0	0	0	0.17
Sewer Pump Station #16	LUS	2	1	1	0	0	1	0	0	0	0.35
Sewer Pump Station #17	LUS	2	1	1	0	1	0	0	0	0	0.35
Sewer Pump Station #18	LUS	2	1	1	0	0	0	0	0	1	0.26
Sewer Pump Station #2	LUS	3	1	1	0	1	1	1	0	1	1
Sewer Pump Station #3	LUS	2	1	1	0	1	1	1	0	1	0.66
Sewer Pump Station #4	LUS	2	1	1	0	1	1	1	0	0	0.58
Sewer Pump Station #5	LUS	2	1	1	0	0	0	0	0	0	0.17
Sewer Pump Station #6	LUS	2	1	1	0	1	0	1	0	1	0.49
Sewer Pump Station #7	LUS	2	1	1	0	1	0	1	0	0	0.41
Storm Sewer Pump Station #8	LUS	2	1	1	0	1	1	1	0	0	0.58
Sewer Pump Station #20	LUS	2	1	1	0	1	0	0	0	1	0.43
Sewer Pump Station #9	LUS	2	1	1	0	0	0	0	0	0	0.17
Tenaska Cogeneration Plant	LUS	2	1	1	0	0	0	0	0	1	0.26
Petro Gas	LUS	2	1	1	0	0	0	0	0	1	0.26
Waste Water Treatment Plant	LUS	3	1	1	0	1	1	1	0	0	0.87
Water Pump Station #1	LUS	2	1	1	0	0	0	0	0	1	0.26
Water Pump Station #2	LUS	2	1	1	0	0	0	0	0	0	0.17



Water Pump Station #3	LUS	2	1	1	0	0	0	0	0	0	0.17
Water Tank #1	LUS	2	1	1	0	0	0	0	0	1	0.26
Water Tank #2	LUS	2	1	1	0	0	0	0	0	0	0.17
WCFD7 St. 1 Ferndale	EF	3	1	1	0	0	1	0	0	0	0.52
WCFD7 St. 2 Whitehorn	EF	3	1	1	0	0	0	0	0	1	0.39
WCFD7 St. 3 N. Bellingham	EF	3	1	1	0	0	0	0	0	0	0.26
WCFD7 St. 4 Kohen Road	EF	3	1	1	0	0	0	0	0	1	0.39
WCFD7 St. 5 Enterprise	EF	3	1	1	0	0	0	0	0	1	0.39
WCFD7 St. 6 Church Road	EF	3	1	1	0	0	0	0	0	1	0.39

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

	City of Ferndale Exposure to Natural Hazards					
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards						
	MMI V	-	-	-	12.2%	\$455
	MMI VI	100%	100%	100%	87.8%	\$131
	MMI VII	-	-	-	-	-
	MMI VIII - IX	-	-	-	-	-
	TOTAL	100%	100%	100%	100%	\$586
	Very Low to Low	46.4%	40.3%	38.5%	46.9%	\$478
	Low to Moderate	35.8%	53.5%	54.1%	34.7%	\$73
	Moderate	-	-	-	-	-
	Moderate to High	17.1%	6.2%	7.4%	18.4%	\$35
	High	-	-	-	-	-
	TOTAL	99.3%	100%	100%	100%	\$586
	Landslide Low	-	-	-	-	-
	Landslide Moderate	-	-	-	-	-
	Landslide High	-	-	-	-	-



Hydrological Hazards	<i>Fan Low</i>	0.08%	0.3%	0.02%	-	-
	<i>Fan Moderate</i>		-	-	-	-
	<i>Fan High</i>	-	-	-	-	-
	<i>Mine Hazard</i>	-	-	-	-	-
	TOTAL	0.08%	0.3%	0.02%	-	-
	<i>Case 1 Debris Flows</i>	-	-	-	-	-
	<i>Case 2 Debris Flows</i>	-	-	-	-	-
	<i>Case M Flows</i>	27.5%	11.6%	11.4%	22.4%	\$35
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	-	-
	TOTAL	27.5%	11.6%	11.4%	22.4%	\$35
	<i>Low to Moderate Inundation Potential</i>	11.6%	5.9%	5.6%	14.3%	\$22
	<i>Moderate to High Inundation Potential</i>	2.1%	4.5%	0.3%	-	-
	<i>High Inundation Potential</i>	-	-	-	-	-
	TOTAL	13.7%	10.4%	5.9%	14.3%	\$22
	<i>100-year Flood</i>	13.6%	5.1%	6.3%	16.4%	\$35
	<i>500-year Flood</i>	4%	3.4%	3.7%	8.2%	\$0.4
	<i>Floodway</i>	2.3%	0.6%	0.2%	-	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-



	TOTAL	19.9%	9.1%	10.2%	24.5%	\$35.4
Meteoro-logical	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	2.9%	0.6%	0.8%	4.1%	\$2
	<i>Interface Medium-High Structure Density</i>	32.1%	59.6%	54.1%	46.9%	\$530
	<i>Intermix Very Low-Low Structure Density</i>	11.5%	0.4%	3.3%	-	-
	<i>Intermix Medium-High Structure Density</i>	16.6%	1.8%	16.2%	6.1%	\$0.6
	TOTAL	63.1%	62.4%	74.4%	57.1%	\$532.6



Status of Ferndale's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

1	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
5	Funding Source:	Local; State; FEMA; Private; Other
6	Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Education and Outreach

EO-a. The City strives to continuously improve the safety of its citizens and level of protection for public infrastructure. The City has committed to expand and maintain its first responder capabilities and has sought to upgrade equipment and infrastructure necessary to respond to emergency events. The City has also sought to make use of all available forms of communication in order to distribute information quickly and accurately.

Lead Agency	Ferndale City Council
Funding Source	Local sources, and state and federal grants
Current Status	Ongoing

EO-b. Continue to identify ways the city can improve the protection of public infrastructure. The City has updated and will continue to update its long-range infrastructure plans and considers natural and human-caused impacts to this infrastructure. The City also seeks to identify modifications or improvements to infrastructure that will avoid or mitigate impacts from natural hazards.

Lead Agency	Ferndale City Council
Funding Source	Local sources, and state and federal grants
Current Status	Ongoing

EO-c. Telephone based early warning system. A computerized early warning system that automatically dials each landline telephone number within a specified area, and plays a recorded message when the phone is answered is currently provided to the City by the



Whatcom County Sheriff's Office, Division of Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally licensed COG would help address a variety of natural and manmade problems.

Lead Agency	City of Ferndale/ Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local sources, and state and federal grants
Current Status	Complete

EO-d. Utility bill inserts. The City routinely includes information in bi-monthly utility bill inserts related to natural hazards and potential avoidance/mitigation measures. The City has also established a quarterly newsletter (established 2020) that is delivered to all utility customers. This newsletter typically includes at least one natural/environmental topic. The City will be transitioning to online utility bill payment 6/1/2021 and expects to be able to utilize this platform for additional communication efforts.

Lead Agency	City of Ferndale Communications Officer
Funding Source	Local
Current Status	Ongoing

EO-e. Adopt and enforce building codes. The City is required to, and does, adopt and enforce the International Building Codes. The City has committed to continue to fully staff these functions.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local
Current Status	Ongoing

Drought/heat wave

D-a. Water Conservation Schedules. During the summer months, the City has a permanent mandatory water conservation schedule. Information relating to water conservation is distributed as part of a coordinated campaign in late spring/early summer each year.

Lead Agency	Ferndale Communications
Funding Source	Local
Current Status	Ongoing

Earthquake

EQ-a. Conduct inspections of building safety.



Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local
Current Status	Ongoing

Volcano

Vol-a. Lahar warning through IPAWS alerting.

Lead Agency	WCDEM
Funding Source	FEMA
Current Status	Completed

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

F-a. Extension of Riverside Dike Reinforcement. The City, working with Whatcom County River and Flood, anticipate that a project to modify the existing levee system north of the treatment plant may provide some flooding benefits. This project would not extend as far as what is described here, but would potentially be close.

Lead Agency	Public Works
Funding Source	Local sources, and state and federal grants
Current Status	Ongoing

F-b. Preparedness handbooks, brochures. Distribution of severe weather guides, homeowner's retrofit guide, etc. The City maintains an inventory of FEMA handbook, brochures, flood-related weather guides, and homeowner's retrofit guides that are available to the public at no cost. The City also provides links to equivalent materials online. The Ferndale Public Library also maintains a collection of these documents that are available to the public.

Lead Agency	WCDEM
Funding Source	Local sources
Current Status	Ongoing

F-c. Incorporate flood mitigation in local planning. Per City Code (FMC 15.24), any development activity within the 100-year floodplain must seek to mitigate flood impacts.

Lead Agency	Ferndale Community Development, Planning Department, and Public Works
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Funding Source	Local sources
Current Status	Ongoing

F-d. Form partnerships to support floodplain management. The City, working with the Whatcom County Department of River and Flood and other regional partners frequently participates in planning efforts to address potential flood impacts, floodplain modeling, and more. In 2020 the City worked with River and Flood to produce a video documenting flood characteristics in Ferndale.

Lead Agency	Ferndale Community Development, Planning Department, WCDEM, and Public Works
Funding Source	Local sources
Current Status	Ongoing

F-e. Limit or restrict development in floodway areas. Per the City's Municipal Code a Floodway Zone has been established consistent with FEMA-designated floodways, prohibiting or restricting development within these areas.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

F-f. Improve stormwater management planning. The City is required to maintain compliance with stormwater manuals established by the Washington State Department of Ecology. In 2021 the City initiated major updates to its Stormwater Comprehensive Plan. The City has augmented the staffing associated with stormwater and has expanded stormwater education throughout Public Works and Community Development Department staff.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

F-g. Adopt policies to reduce stormwater runoff. The City is required to comply with the most recent edition of the Western Washington Stormwater Manual issued by the Washington State Department of Ecology, which seeks to reduce stormwater runoff.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing



F-h. Improve flood risk assessment. City staff undertake annual floodplain training. In the future the City anticipates enrolling at least one staff member in a comprehensive flood risk assessment course.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

F-i. Join or improve compliance with NFIP. Ferndale is compliant with NFIP.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Complete

F-j. Participate in the CRS. The City has maintained participation in CRS since 2016; the City anticipates maintaining this affiliation and to expand its compliance over time.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

F-k. Improve stormwater drainage system capacity. Through its update to the Stormwater Comprehensive Plan (initiated 2021), the City anticipates the completion of an analysis of overall stormwater drainage system capacity and projects necessary to achieve this goal. The plan is expected to be completed at the end of 2022.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

F-l. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures. The City is obligated to periodically inspect and maintain its various drainage systems and flood control structures, including stormwater and storm drains associated with the City's transportation network. In addition, the City seeks to ensure that private properties and homeowner's associations meet their responsibilities for inspection and maintenance of private structures. The City is fully staffed to accomplish these goals.



Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

F-m. Protect infrastructure. The City is obligated to protect and maintain its infrastructure. In addition to these standard responsibilities, the City in 2021 initiated an Asset Management program to better track infrastructure maintenance, including recurring maintenance obligations that could be indicative of broader challenges. This will enable the City to proactively identify additional steps or projects necessary to maintain the system.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

F-n. Protect critical facilities. The City continues to evaluate the condition of all of its critical facilities and anticipates constructing new City Hall/ Municipal Court facilities by the end of the decade that will represent an improvement and be better-protected than the current facilities.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

F-o. Preserve pre-designated undeveloped floodways as open space.

Lead Agency	Ferndale Community Development and Planning
Funding Source	Local sources
Current Status	Complete

F-p. Increase awareness of flood risk and safety. On at least an annual basis the City distributes information to the community and businesses concerning flood impacts, risks, and mitigation measures.

Lead Agency	Ferndale Community Development, Planning Department, City of Ferndale Communications Officer, and WCDEM
Funding Source	Local sources
Current Status	Ongoing

F-q. Educate property owners about flood mitigation techniques. On at least an annual basis



the City distributes information to the community and businesses concerning flood impacts, risks, and mitigation measures.

Lead Agency	Ferndale Community Development, Ferndale Public Works, City of Ferndale Communications Officer, and WCDEM
Funding Source	Local sources
Current Status	Ongoing

Landslide/erosion

ER-a. Map and assess vulnerability to erosion. The City maintains steep slope and erosion maps on its GIS database, which is available to the public.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

ER-b. Manage development in erosion hazard areas. There are no areas of substantial erosion risk in the City that would prevent development from occurring on the property; should there be an erosion hazard risk on the property, the City's codes require that the applicant seek to avoid the area or to mitigate impacts accordingly.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

ER-c. Promote or require site and building design standards to minimize erosion risk. The Ferndale Critical Areas Ordinance includes erosion risks as geologic hazards, which must be avoided. If avoidance is not possible, the code identifies several steps to minimize and mitigate potential impacts.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

LS-a. Map and assess vulnerability to landslides. The City of Ferndale's GIS maps depict steep slopes and areas of landslide risk.



Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

LS-b. Manage development in landslide hazard areas. The Ferndale Critical Areas Ordinance includes landslide risks as geologic hazards, which must be avoided. If avoidance is not possible, the code identifies several steps to minimize and mitigate potential impacts.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

LS-c. Prevent impacts to roadways. The City's development standards, combined with its land use regulations, Critical Areas Ordinance, and Public Works Maintenance division are designed to work collaboratively to prevent impacts to roadways. When necessary the Ferndale Police Department may provide additional traffic control and assistance during emergency events.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

SW-a. Promote or require site and building design standards to minimize wind damage. The City of Ferndale is required to verify that structures built in the City of Ferndale are designed to meet wind load standards. The City also utilizes Code Enforcement personnel to identify potential risks resulting from wind damage, and to pursue enforcement in order to remove the potential impact.



Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

SW-b. Increase severe wind risk awareness. The City utilizes its public information channels to promote wind awareness prior to anticipated wind event.

Lead Agency	City of Ferndale Communications Officer and WCDEM
Funding Source	Local sources
Current Status	Ongoing

Tornadoes

No actions ongoing, discontinued, or completed for this hazard

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes

WW-a. Protect buildings and infrastructure. The City designs and operates its facilities and infrastructure to meet the demands of all seasons and weather conditions. The City seeks to ensure adequate funding for normal maintenance, repairs, and system replacement.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

WW-b. Reduce impacts to roadways. The City has developed snow plow routes, advance warning of inclement winter weather, and more. As a result, City of Ferndale roadways are widely recognized as the most-navigable roadways in Whatcom County during winter weather events.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

WW-c. Conduct winter weather risk awareness activities. Annually, and immediately prior to



forecast winter weather events, the City distributes information concerning priority snow plow routes, shelter opportunities for the homeless and near homeless, appropriate steps to prevent burst pipes, and more.

Lead Agency	City of Ferndale Communications Officer and WCDEM
Funding Source	Local sources
Current Status	Ongoing

Multiple Hazards

MU-a. Assess community risk. The City continually reviews regulations, practices, procedures, and City facilities to determine whether existing conditions are adequate to meet the demands of future growth, change, and hazard impacts. The City has sought to practice rolling code and development changes in order to constantly refresh City expectations and policies. The City is also working with regional partners to augment climate change resiliency planning.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

MU-b. Map community risk. The City maintains a comprehensive GIS mapping system available to the general public. Included in this system are additional data layers (maps) depicting community risk.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

MU-c. Prevent development in hazard areas. The City's various policies (Critical Areas Ordinance, Zoning, Shoreline Master Program, Floodplain Management, Development Standards, etc.) are designed to provide a higher-level of scrutiny when development is proposed in or near hazard areas; development is generally prohibited in high hazard areas.

Lead Agency	Ferndale Community Development and Planning Department
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Funding Source	Local sources
Current Status	Ongoing

MU-d. Adopt development regulations in hazard areas.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

MU-e. Integrate mitigation into local planning.

Lead Agency	Ferndale Community Development and Planning Department
Funding Source	Local sources
Current Status	Ongoing

MU-f. Protect structures.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

MU-g. Protect infrastructure and critical facilities.

Lead Agency	Ferndale Public Works
Funding Source	Local sources
Current Status	Ongoing

MU-h. Increase hazard education and risk awareness.

Lead Agency	City of Ferndale Communications Officer and WCDEM
Funding Source	Local sources
Current Status	Ongoing

MU-i. Improve household disaster preparedness.

Lead Agency	City of Ferndale Communications Officer and WCDEM
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Funding Source	Local sources
Current Status	Ongoing



Ferndale 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

City of Ferndale-Specific Hazard Mitigation Goals

Ferndale does not add any community specific goals to the county goals.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Ferndale considered mitigation options related to earthquakes, volcanoes, flooding, landslides/erosion, land subsidence, tsunamis, and winter storms, especially those related to earthquake and flooding, because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Ferndale. Some options have already been implemented or are ongoing in Ferndale, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Ferndale has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare.



Ferndale is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority:	H (High); M (Medium); L (Low)
4	Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source:	Local; State; FEMA; Private; Other
6	Estimated Cost:	Actual; Estimated



Ferndale's Identified Mitigation Actions 2021-2025

City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Education and Outreach Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>EO-a Ongoing -- The City strives to continuously improve the safety of its citizens and level of protection for public infrastructure</i>	1	Ferndale City Council	M	O	Local/State/Federal	Staff
	<i>EO-b Ongoing -- Continue to identify ways the city can improve the protection of public infrastructure</i>	1	Ferndale City Council	M	O	Local/State/Federal	Staff
	<i>EO-d Ongoing -- Utility Bill Inserts</i>	2	City of Ferndale Communications Officer	M	O	Local	Staff
	<i>EO-e Ongoing -- Adopt and enforce building codes</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	EO-1 Hazard "Safety Fairs"	2	WCDEM	M	L	Local	
	EO-2 Hazard Awareness Weeks	2	WCDEM	M	L	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	EO-3 Emergency preparedness education programs for schools.	2,1	Ferndale School District	M	S	Local	
	EO-4. Drills, exercises in homes, workplaces, classrooms, etc.	2,1	Ferndale Police Department and WCDEM	M	S	Local	
Hazard Specific (Reference: Whatcom County Mitigation Ideas)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee Failures (See: Flooding)	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
Droughts/Heat Waves	<i>D-a Ongoing -- Water Conservation Schedules</i>	1, 3	Ferndale Communications	M	O	Local	Staff
Earthquakes	<i>EQ-a Ongoing -- Conduct inspections of building safety</i>	1, 5	Ferndale Community Development and Planning Department	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	EQ-1 Construct a new city hall facility to meet requirements to survive a 6.0M _w or greater earthquake event.	1,2	Ferndale Planning Department	H	L	Local sources, and state and federal grants	\$12-15 million
	EQ-2 Earthquake Early Warning System	1,2	Ferndale Police Department/Whatcom Fire District 7	M	L	Local sources, and state and federal grants	\$500,000
Extreme Temperatures	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
Flooding	F-a Ongoing -- Extension of Riverside Dike Reinforcement	1	Public Works	M	O	Local, State, and Federal	Staff
	F-b Ongoing -- Preparedness handbooks, brochures	2	WCDEM	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>F-c Ongoing -- Incorporate flood mitigation in local planning</i>	1	Ferndale Community Development, Planning Department, and Public Works	M	O	Local	Staff
	<i>F-d Ongoing -- Form partnerships to support floodplain management</i>	1, 5	Ferndale Community Development, Planning Department, WCDEM, and Public Works	M	O	Local	Staff
	<i>F-e Ongoing -- Limit or restrict development in floodway areas</i>	1, 3	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>F-f Ongoing -- Improve stormwater management planning</i>	1, 3	Ferndale Public Works	M	O	Local	Staff
	<i>F-g Ongoing -- Adopt policies to reduce stormwater runoff</i>	1, 3	Ferndale Public Works	M	O	Local	Staff
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>F-h Ongoing -- Improve flood risk assessment</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>F-j Ongoing -- Participate in the CRS</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>F-k Ongoing -- Improve stormwater drainage system capacity</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>F-l Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>F-m Ongoing -- Protect infrastructure</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>F-n Ongoing -- Protect critical facilities</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>F-p Ongoing -- Increase awareness of flood risk and safety</i>	2	Ferndale Community	M	O	Local	Staff
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Development, Planning Department, City of Ferndale Communications Officer, and WCDEM				
	<i>F-q Ongoing -- Educate property owners about flood mitigation techniques</i>	2	Ferndale Community Development, Ferndale Public Works, City of Ferndale Communications Officer, and WCDEM	M	O	Local	Staff
	FL-1 Purchase Repetitive Loss Properties in the Floodplain		Ferndale Planning Department	M	L	Local sources, and state and federal grants	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Landslide/ Erosion/ Land Subsidence	<i>ER-a Ongoing -- Map and assess vulnerability to erosion</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>ER-b Ongoing -- Manage development in erosion hazard areas</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>ER-c Ongoing -- Promote or require site and building design standards to minimize erosion risk</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>LS-a Ongoing -- Map and assess vulnerability to landslides</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>LS-b Ongoing -- Manage development in landslide hazard areas</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>LS-c Ongoing -- Prevent impacts to roadways</i>	1	Ferndale Public Works	M	O	Local	Staff
	LS-1 Survey for potential alluvial fan hazards	1,2	Ferndale Planning Department	M	L	Local sources, and state and federal grants	
Lightning	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
Severe Storms	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
	<i>SW-a Ongoing -- Promote or require site</i>	1	Ferndale	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Severe Wind	<i>and building design standards to minimize wind damage</i>		Community Development and Planning Department				
	<i>SW-b Ongoing -- Increase severe wind risk awareness</i>	2	City of Ferndale Communications Officer and WCDEM	M	O	Local	Staff
Tornadoes	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
Wildfires	The City of Ferndale has no planned actions for this hazard that is not already in progress or completed						
Winter Storms/ Freezes (Severe Winter Weather)	<i>WW-a Ongoing -- Protect buildings and infrastructure</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>WW-b Ongoing -- Reduce impacts to roadways</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>WW-c Ongoing -- Conduct winter weather risk awareness activities</i>	1	City of Ferndale Communications Officer and	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
---	---	--	---



City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			WCDEM				
Multiple Hazards	<i>MU-a Ongoing -- Assess community risk</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>MU-b Ongoing -- Map community risk</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>MU-c Ongoing -- Prevent development in hazard areas</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>MU-d Ongoing -- Adopt development regulations in hazard areas</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>MU-e Ongoing -- Integrate mitigation into local planning</i>	1	Ferndale Community Development and Planning Department	M	O	Local	Staff
	<i>MU-f Ongoing -- Protect structures</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>MU-g Ongoing -- Protect infrastructure and critical facilities</i>	1	Ferndale Public Works	M	O	Local	Staff
	<i>MU-h Ongoing -- Increase hazard education and risk awareness</i>	1	City of Ferndale Communications Officer and WCDEM	M	O	Local	Staff
	<i>MU-i Ongoing -- Improve household disaster preparedness</i>	1	City of Ferndale Communications Officer and WCDEM	M	O	Local	Staff
Advanced Mitigation Projects	Natural Hazard Early Warning Systems	1,2,5	Whatcom County, Ferndale Police Department, What-Comm	M	S	Unknown	\$500,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
---	---	--	---



City of Ferndale IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
(Dream List)	Tone Radio Based Early Warning System Natural Hazard Early Warning Systems	1,2,5	Whatcom County, Ferndale Police Department, What-Comm	M	S	Unknown	\$500,000
	Purchase Repetitive Loss Properties	1,3	City of Ferndale, Whatcom County River and Flood	L	L	FEMA, Local Match	\$1 million
	Schell Marsh Flood Attenuation Project	1,3	City of Ferndale	H	M	State, Federal	\$1 million

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
---	---	--	---



Ferndale Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

Step One: Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.

Step Two: Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.

Step Three: Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review

Step Four: Submit the completed form(s) to the Whatcom County DEM.



City of Ferndale						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
EDUCATION AND OUTREACH						
EO-a. The City strives to continuously improve the safety of its citizens and level of protection for public infrastructure.	B					Ongoing/Forever Action
EO-b. Continue to identify ways the city can improve the protection of public infrastructure.	B					Ongoing/Forever Action
EO-c. Telephone based early warning system: A computerized early warning system that automatically dials each landline telephone number within a specified area, and plays a recorded message when the phone is answered is currently provided to the City by the Whatcom County Sheriff's Office, Division of Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally licensed COG would help address a variety of natural and manmade problems.	D					
EO-d. Utility bill inserts.	B					Stormwater, Flood (anticipated for 2021)
EO-1. Hazard "Safety Fairs"		B				
EO-2. Hazard Awareness Weeks	B					City anticipates a hazard awareness week to coincide with the adoption of NHMP and CEMP
EO-3. Emergency preparedness education programs for schools.	B					
EO-4. Drills, exercises in homes, workplaces, classrooms, etc.	B					City anticipates 2021 evacuation/emergency response drills in City facilities
<i>Add New Action Items if Applicable</i>						



City of Ferndale						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
DAM/LEEVE FAILURES						
Add New Action Items if Applicable						
DROUGHTS/HEAT WAVES						
D-a. Water Conservation Schedules	B					City annually distributes information concerning water conservation and steps to mitigate drought impacts
Add New Action Items if Applicable						
EARTHQUAKES						
EQ-a. Conduct inspections of building safety.	C					COVID-19 and higher-than-normal private development activity has reduced the City's ability to conduct safety inspections for existing buildings.
EQ-1. Construct a new city hall facility to meet requirements to survive a 6.0MW or greater earthquake event.	C					Design will not occur prior to 2022 at the earliest.
EQ-2. Earthquake Early Warning System	D					
Add New Action Items if Applicable						
VOLCANO						
VOL-a. Lahar warning through IPAWS alerting.						
Add New Action Items if Applicable						
FLOODING						
FL-a. Extension of Riverside Dike	B					Initial design and alternatives under



City of Ferndale Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>Reinforcement: The City, working with Whatcom County River and Flood, anticipate that a project to modify the existing levee system north of the treatment plant may provide some flooding benefits. This project would not extend as far as what is described here, but would potentially be close.</i>						review
<i>FL-b. Preparedness handbooks, brochures. Distribution of severe weather guides, homeowner's retrofit guide, etc.</i>	B					City maintains an inventory of FEMA flood information available to the public, Ferndale Public Library includes identical data available to the public for reference.
<i>FL-c. Incorporate flood mitigation in local planning.</i>	B					
<i>FL-d. Form partnerships to support floodplain management.</i>	B					
<i>FL-e. Limit or restrict development in floodway areas.</i>	B					
<i>FL-f. Improve stormwater management planning.</i>	B					The City has initiated an update to its Stormwater Comprehensive Plan, to be completed 4Q 2022.
<i>FL-g. Adopt policies to reduce stormwater runoff.</i>	B					The City has adopted such policies consistent with relevant stormwater manuals.
<i>FL-h. Improve flood risk assessment.</i>						
<i>FL-i. Join or improve compliance with NFIP.</i>	A					Ongoing/Forever Action
<i>FL-j. Participate in the CRS, have been participating since 2016.</i>	B					Ongoing/Forever Action
<i>FL-k. Improve stormwater drainage system capacity.</i>	B					Ongoing/Forever Action
<i>FL-l. Conduct Regular Maintenance for</i>	B					Ongoing/Forever Action



City of Ferndale Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Drainage Systems and Flood Control Structures.						
FL-m. Protect infrastructure.	B					Ongoing/Forever Action
FL-n. Protect critical facilities.	B					Ongoing/Forever Action
FL-o. Preserve pre-designated undeveloped flood plains as open space.	B					Ongoing/Forever Action
FL-p. Increase awareness of flood risk and safety.	B					Ongoing/Forever Action
FL-q. Educate property owners about flood mitigation techniques.	B					Ongoing/Forever Action
FL-1. Purchase Repetitive Loss Properties in the Floodplain	D					
<i>Add New Action Items if Applicable</i>						
LANDSLIDES/EROSION						
ER-a. Map and assess vulnerability to erosion.	A					
ER-b. Manage development in erosion hazard areas.	B					Ongoing/Forever Action
ER-c. Promote or require site and building design standards to minimize erosion risk.	B					Ongoing/Forever Action
ER-d. Increase awareness of erosion hazards.	B					Ongoing/Forever Action
LS-a. Map and assess vulnerability to landslides.	A					
LS-b. Manage development in landslide hazard areas.	B					Ongoing/Forever Action
LS-c. Prevent impacts to roadways.	B					Ongoing/Forever Action
LS-1. Survey for potential alluvial fan	D					



City of Ferndale Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
hazards						
<i>Add New Action Items if Applicable</i>						
LAND SUBSIDENCE						
<i>SU-a. Educate residents about subsidence.</i>	D					
<i>Add New Action Items if Applicable</i>						
TORNADOES						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						
<i>TSU-a. Map and assess vulnerability to tsunami.</i>	A					
<i>TSU-b. Manage development in tsunami hazard areas.</i>	A					
<i>TSU-c. Increase public awareness of tsunami hazard.</i>	A					
<i>Add New Action Items if Applicable</i>						
WILDFIRES						
<i>Add New Action Items if Applicable</i>						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
<i>WW-a. Protect buildings and infrastructure.</i>	B					Ongoing/Forever Action
<i>WW-b. Reduce impacts to roadways.</i>	B					Ongoing/Forever Action
<i>WW-c. Conduct winter weather risk awareness activities.</i>	B					Ongoing/Forever Action



City of Ferndale Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						
EXTREME TEMPERATURES						
Add New Action Items if Applicable						
LIGHTNING						
Add New Action Items if Applicable						
SEVERE WIND						
<i>SW-a. Promote or require site and building design standards to minimize wind damage.</i>	B					Ongoing/Forever Action
<i>SW-b. Increase severe wind risk awareness.</i>						
Add New Action Items if Applicable						
MULTIPLE HAZARDS						
<i>MU-a. Assess community risk.</i>	B					Ongoing/Forever Action
<i>MU-b. Map community risk.</i>	B					Ongoing/Forever Action
<i>MU-c. Prevent development in hazard areas.</i>	B					Ongoing/Forever Action
<i>MU-d. Adopt development regulations in hazard areas.</i>	A					
<i>MU-e. Integrate mitigation into local planning.</i>	A					
<i>MU-f. Adopt and enforce building codes.</i>	B					Ongoing/Forever Action
<i>MU-g. Protect structures.</i>	B					Ongoing/Forever Action
<i>MU-h. Protect infrastructure and critical facilities.</i>	B					Ongoing/Forever Action
<i>MU-i. Increase hazard education and risk</i>	B					Ongoing/Forever Action



City of Ferndale						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>awareness.</i>						
<i>MU-j. Improve household disaster preparedness.</i>	D					
<i>Add New Action Items if Applicable</i>						



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WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT

Contact Information

Paula Harris

River and Flood Manager
Whatcom County Public Works
322 N Commercial Street, Suite 120 Bellingham, WA 98225
360-778-6230

Approving Authority

**County Executive Satpal Singh Sidhu and Whatcom County Council
Members, acting as the Whatcom County Flood Control Zone**

District Board of Supervisors
311 Grand Avenue, Suite 308 Bellingham, WA 98225
(360) 676-6717

Planning Process

The updating process started in early 2021. This process consisted of county wide meetings as well as more focused meetings with district staff and Western Washington University, with the goal of improving the Whatcom County Flood Control District section.

Key Contributor List

- Paula Harris, River and Flood Manager
- Kraig Olason, Stormwater Manager
- Andrew Wiser, Geohazard Specialist, Planner

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the best science and technology currently available. This information and related data on natural hazards potentially impacting the Flood Control Zone District will be used as a tool when the County updates other plans and programs, such as the following:

- Whatcom County Comprehensive Plan
- Whatcom County Comprehensive Emergency Management Plan
- Shoreline Management Program (part of comprehensive plan)
- Transportation Plan (part of comprehensive plan)



- Urban Growth Areas SubArea Plans
- Zoning Code
- Capital Improvement Program for Whatcom County Facilities

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for Whatcom Flood Control Zone District

The Whatcom County Flood Control Zone District (FCZD) has initiated the Floodplain Integrate Planning (FLIP) process to update and expand the Lower Nooksack River Comprehensive Flood Hazard Management Plan (CFHMP) to include the Upper Forks of the Nooksack River. The Whatcom County River and Flood Division of the Public Works Department is overseeing and coordinating the planning process. An extensive stakeholder group has been established that includes representatives from the resource agencies and special districts involved in river management to contribute to this planning process. Throughout the planning process, regular updates are provided to and feedback solicited from the FCZD Advisory Committee, a citizens committee that includes floodplain residents, mayors of two small cities and interested parties. These meetings are open to the public and are advertised through press releases, emailed agendas to those who request them, and postings on the Whatcom County website calendar. Additional opportunities for public input occur during regular updates to the Whatcom County FCZD Board of Supervisors, which occur during meetings of the Whatcom County Council. Once the CFHMP update is complete, the new risk and mitigation information will be incorporated into the next version of this Plan.



Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	
Ongoing public education or information programs	Yes	Provide information of flood hazards and mitigation measures to individuals and as projects develop
School-related programs for natural hazard safety	No	
Public education or information program	Yes	Community Rating System
StormReady certification	No	Whatcom County is a StormReady county.
Firewise Community certification	No	
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		



Overview of Whatcom Flood Control District, Hazards and Assets

Geography of The Whatcom Flood Control Zone District

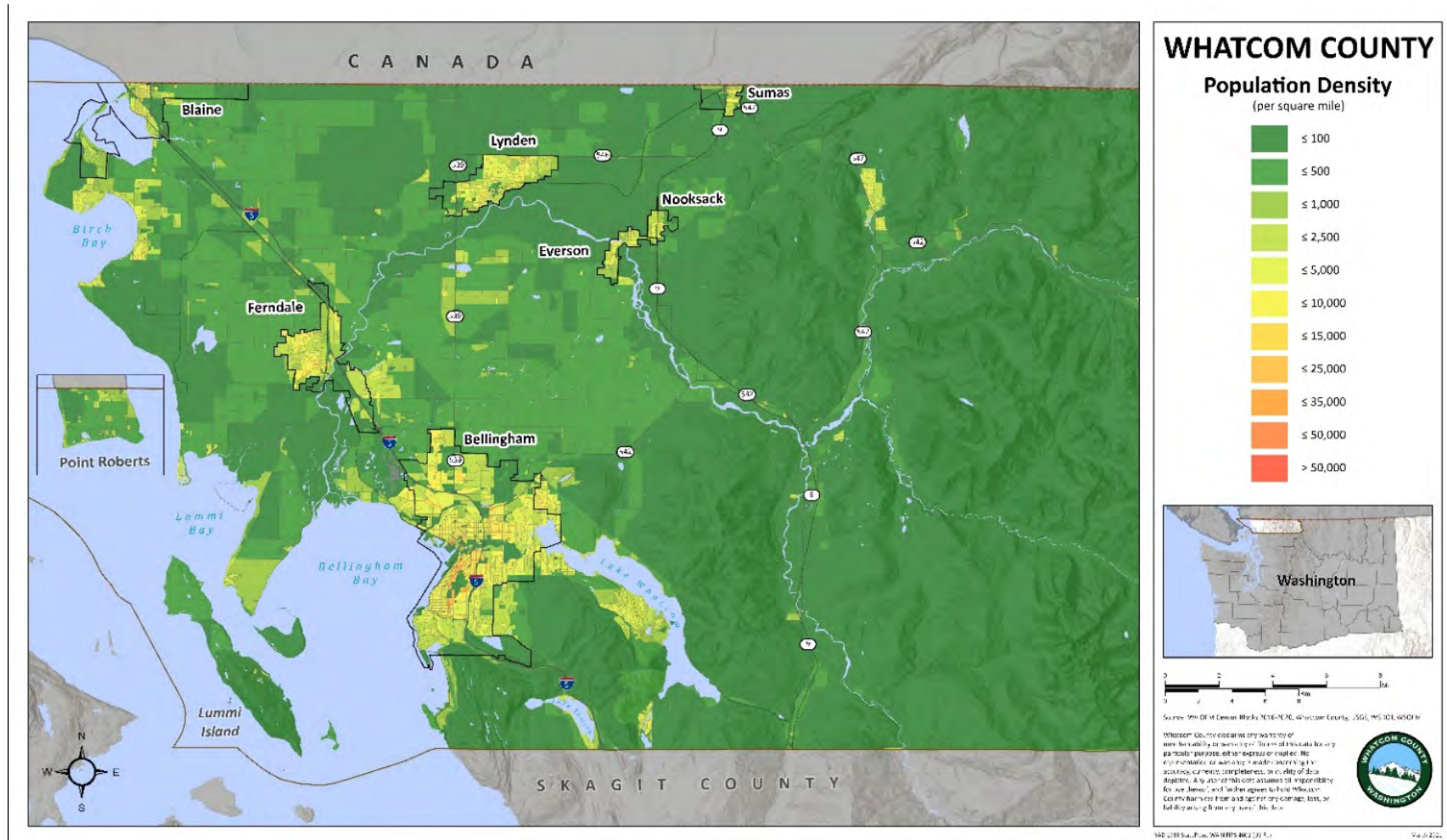
<u>Flood Control Zone District Total Population</u>	<u>228,000 (2020 Census estimate)</u>
<u>Unincorporated Area Population</u>	95,300 <u>(2020 Census estimate)</u>
<u>Flood Control Zone District Total Area</u>	2,120 mi
<u>Flood Control Zone District Incorporated Area</u>	95.4 mi
<u>Flood Control Zone District Unincorporated Area</u>	2,024.6 mi

Growth Trends

This maps below display the district boundaries, population, and the UGA for the Flood Control Zone District, as designated by the Whatcom County Comprehensive Plan.



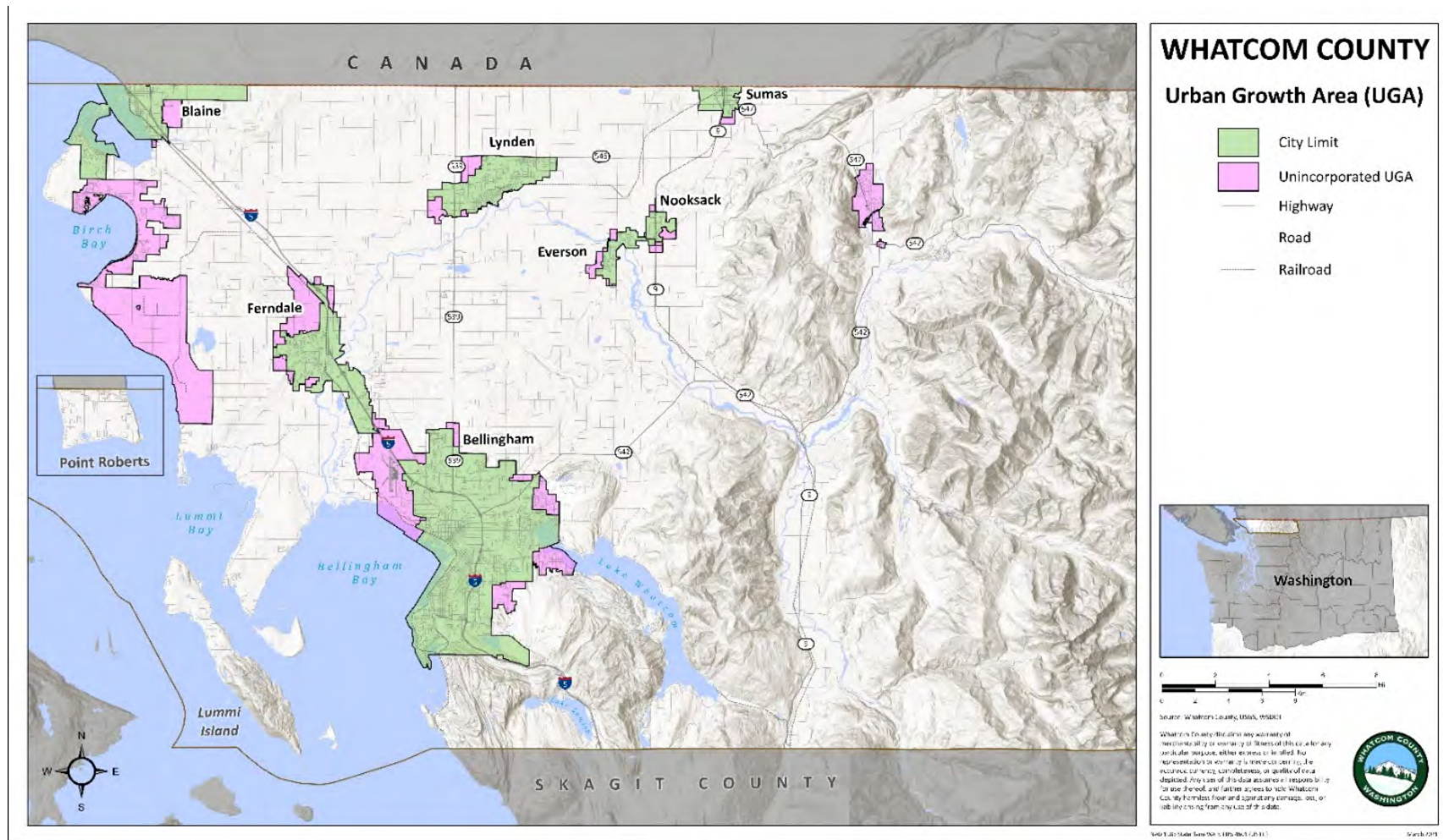
SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –FLOOD CONTROL ZONE DISTRICT



Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –FLOOD CONTROL ZONE DISTRICT





Presence of Hazards and their Impacts in the Flood Control Zone District

The Flood Control Zone District encompasses the same area that Whatcom County does, and therefore has the same hazard exposure and impacts. The Flood Control Zone District is primarily concerned with the impacts of flooding and erosion. See the profiles of other jurisdictions or Whatcom County for details on more hazards.

Flooding on the Nooksack River in February of 2020 resulted in significant overflows at Everson that impacted the communities of Everson, Nooksack and Sumas as well as the unincorporated areas. In addition to structural damages to residences and businesses in the Everson-Sumas overflow corridor, the transportation infrastructure in the corridor was impacted for several days during and after the flood.

The Flood Control Zone District's growth is the same as Whatcom County's and the individual communities that make up the district. See their sections for more detail on growth, including exposure to hazards.

In the table below is a list of the major hazards that affect Whatcom County. The second column provides the percentage of the Flood Control Zone District's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	86.4%	Moderate to High	The risk of earthquakes to the county is moderate to high. Lake shores are especially subject to damage, as well as characteristics of geologic materials in the County have caused major slides that impacted ground transportation.
	Liquefaction	25.5%	Moderate to High	The loss of intergranular strength in saturated, loosely packed sediment due to elevated pore pressures typically generated by seismic shaking during large magnitude earthquakes. Liquefaction can result in a loss of foundation bearing support and significant building damage, as well as lateral spreading, sand boils, and excessive ground settlement with associated disruption of utilities, roadway systems, and infrastructure.
	Landslide	5.8%	Moderate	Multiple areas around the county are at risk of landslides and debris flows due to unstable geologic conditions.
	Volcano	33.9%	High	Many of the populated areas are at risk in the event of a volcanic eruption from Mount Baker and associated lahars.
	Tsunami	1.2%	Low	Portions of the county exposed to the western straits are at risk of tsunami damage, specifically the area around Sandy Point, Lummi Peninsula, and the Nooksack and Lummi River deltas and floodplain upstream to Ferndale.
	Mine Hazards	0.1%	Low	Mine hazards are present throughout the county. Whatcom has a history of coal mining.
Hydrological	Flooding	4.8%	High	The Nooksack River, its upstream forks, alluvial fans on tributaries and coastal areas are subject to flooding. The main coastal communities impacted by coastal flooding are Sandy Point, Birch Bay, Point Roberts, and Lummi Peninsula.



				Damages can include structural damage to residences and seawalls as large debris is carried by waves hitting the shoreline, inundation damage to structures, and debris accumulation and flooding of roadways.
Meteorological	Wildfire	12.3%	Moderate	Certain Communities at Risk have been identified, as well as levels of fire risk.

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread



Natural Hazard Maps

Natural hazard maps for the Flood Control District can be found in Section 2, which provides hazard maps for the entire county.

Whatcom Flood Control Zone District Critical Facility List

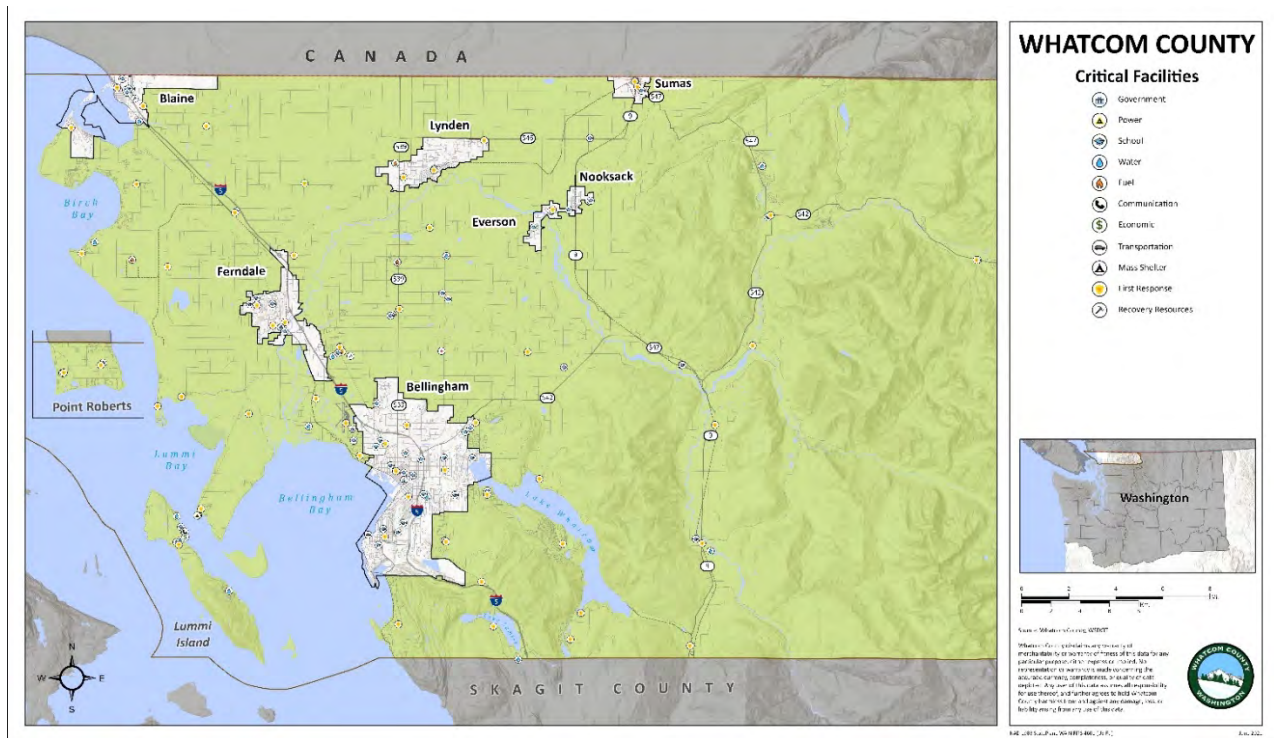
Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Columbia Valley Water District	LUS	3	6229 Azure Way, Maple Falls, WA 98266		Water District
Lummi Law & Order	EF	3	Lummi Reservation		Lummi Police
Nooksack Police Department	EF	3	111 W Main St., Everson, WA 98247		Nooksack Police
Northwest Water Works, Inc.	LUS	3	5207 Graveline Rd., Bellingham, WA 98226		Utility: Water
Pole Road Water Association	LUS	3	6912 Hannegan Rd. #105, Lynden, WA 98264		Utility: Water
Schools: Districts 501, 503, 505, 507	EF	1	10 Schools Total		School, possible shelter, distribution site or staging area.
Search & Rescue	LUS	3	1041 W Smith Rd, Bellingham, WA 98226		
Seattle City Light	LUS	3	Newhalem		Utility: Power
Fire Protection District – 38 Total	EF	3	Various		Critical Government Facility
Water District #2 – Bellingham	LUS	3	1615 Bayon Rd, Bellingham, WA 98225		Utility: Water
Water District #7 – Bellingham	LUS	3	1615 Bayon Rd, Bellingham, WA 98225		Utility: Water
Water District #4 – Point Roberts	LUS	3	1405 Gulf Rd, Point Roberts, WA 98281		Utility: Water



Water District #10 – Geneva/Sudden Valley	LUS	3	1220 Lakeway Dr, Bellingham, WA 98229		Utility: Water
Water District #12 – Lake Samish	LUS	3	2195 Nulle Road Bellingham, WA 98229		Utility: Water
Water District #13 – Maple Falls	LUS	3	6229 Azure Way, Maple Falls, WA 98266		Utility: Water
Water District #14 – Glacier	LUS	3	9973 Mt Baker Hwy, Deming, WA 98244		Utility: Water
Water District #18 – Acme	LUS	3	5456 Rothenbuhler Rd., Acme, WA 98220		Utility: Water
BP-Cherry Point Refinery	Fuel	2	4519 Grandview Road		
Birch Bay Water and Sewer (District 8)	LUS	3	7096 Pt. Whitehorn Road		Utility: Water
Birch Bay Water Connection	LUS	3	2701 Bell Road		Utility: Water
Whatcom Unified Emergency Coordination Center	EF	3	3888 Sound Way		Critical Government Facility

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Map of critical facilities identified by the Whatcom County Flood Control Zone District. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the Flood Control Zone District

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of e hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Columbia Valley Water District	LUS	3	1	1	0	0	0	0	0	1	0.45
Lummi Law & Order	EF	3	1	1	0	0	0	0	0	1	0.45
Nooksack Police Department	EF	3	1	1	0	0	0	0	0	0	0.30
Northwest Water Works, Inc.	LUS	3	1	1	0	0	0	0	0	0	0.30
Pole Road Water Association	LUS	3	1	1	0	0	0	0	0	0	0.30
Schools: Districts 501, 503, 505, 507	EF	1	See Whatcom Unincorporated in Section 3 for individual school listings.								0.05-0.33
Search & Rescue	LUS	3	1	1	0	0	0	0	0	0	0.30
Seattle City Light	LUS	3	1	0	0	0	0	1	0	0	0.25
Fire Protection District – 38 Total	EF	3	See Whatcom Unincorporated in Section 3 for individual school listings.								0.3-0.75
Water District #2 – Bellingham	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #7 – Bellingham	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #4 – Point Roberts	LUS	3	1	1	0	1	0	0	0	1	0.75
Water District #10 – Geneva/Sudden Valley	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #12 – Lake Samish	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #13 – Maple Falls	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #14 – Glacier	LUS	3	1	1	1	0	1	1	0	1	1



SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –FLOOD CONTROL ZONE

Water District #18 – Acme	LUS	3	1	1	0	0	1	1	0	1	0.85
BP-Cherry Point Refinery	Fuel	2	1	1	0	0	0	0	0	1	0.30
Birch Bay Water and Sewer (District 8)	LUS	3	1	1	0	1	0	0	0	1	0.75
Birch Bay Water Connection	LUS	3	1	1	0	1	0	0	0	1	0.75
Whatcom Unified Emergency Coordination Center	EF	3	1	1	0	0	0	0	0	0	0.30

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

Flood Control Zone District Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	<i>MMI IV</i>	7.7%	-	0.03%	-	-
	<i>MMI V</i>	31.7%	15.3%	15.7%	23.6%	\$153
	<i>MMI VI</i>	29.6%	63.5%	66.8%	58.4%	\$1181
	<i>MMI VII</i>	11.7%	13.8%	8.4%	7.9%	\$14
	<i>MMI VIII - IX</i>	5.7%	7.3%	7.4%	10.1%	\$40
	TOTAL	86.4%	99.9%	98.3%	100%	\$1388
	Liquefaction					
	<i>Very Low to Low</i>	14.6%	45.4%	41.8%	51.7%	\$215
	<i>Low to Moderate</i>	6.5%	24.4%	27.5%	24.7%	\$1052
	<i>Moderate</i>	-	-	-	-	-
	<i>Moderate to High</i>	4.4%	7.5%	8.5%	7.9%	\$34
	<i>High</i>	0.02%	-	0.04%	-	-
	TOTAL	25.5%	77.3%	77.84%	84.3%	\$1301
	Landslide					
	<i>Landslide Low</i>	0.7%	0.2%	0.25	-	-
	<i>Landslide Moderate</i>	1%	0.2%	0.1%	-	-
	<i>Landslide High</i>	2.9%	1.2%	1.9%	1.1%	\$0.1
	<i>Fan Low</i>	0.1%	0.1%	0.06%	-	-



Hydrological Hazards	<i>Fan Moderate</i>	0.3%	0.2%	0.2%	-	-
	<i>Fan High</i>	0.8%	2.4%	1.9%	2.2%	\$3
	<i>Mine Hazard</i>	0.1%	0.4%	2.1%	2.2%	\$17
	TOTAL	5.9%	4.7%	6.51%	5.5%	\$20.1
	Volcanic Eruption					
	<i>Case 1 Debris Flows</i>	1.6%	1.9%	2.1%	2.2%	\$0.5
	<i>Case 2 Debris Flows</i>	0.9%	1.2%	-	-	-
	<i>Case M Flows</i>	2.9%	5.6%	6.3%	7.9%	\$34
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	5.8	0.2%	0.6%	1.1%	-
	<i>Lateral Blast Hazard Zone</i>	22.7%	3.8%	5.5%	6.7%	\$11
	TOTAL	33.9%	12.7%	14.5%	17.9%	\$45.5
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	0.3%	2.2%	0.6%	2.3%	\$2
	<i>Moderate to High Inundation Potential</i>	0.3%	2.4%	0.5%	-	-
	<i>High Inundation Potential</i>	0.6%	0.7%	5.6%	2.3%	\$0.4
	TOTAL	1.2%	5.3%	6.7%	4.6%	\$2.4
	Flooding					
	<i>100-year Flood</i>	3.5%	6.7%	8%	3.4%	\$1
	<i>500-year Flood</i>	0.4%	1.9%	3.4%	4.5%	\$4
	<i>Floodway</i>	0.9%	1.4%	-	-	-
	<i>Undetermined (Zone D)</i>	52.1%	0.1%	0.05%	1.1%	\$9
	TOTAL	4.8%	10.1%	11.45%	9%	\$14



Meteorological Hazards	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	0.9%	1.9%	7.7%	1.1%	\$0.4
	<i>Interface Medium-High Structure Density</i>	1.4%	23.2%	26.9%	41.6%	\$1208
	<i>Intermix Very Low-Low Structure Density</i>	5.9%	17.2%	1.6%	30.3%	\$112
	<i>Intermix Medium-High Structure Density</i>	4.1%	32.1%	30.4%	22.5%	\$36
	TOTAL	12.3%	74.4%	66.6%	95.5%	\$1356.4



Status of Whatcom County Flood Control Zone District's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Education and Outreach

EO-a. Ensure Welfare and Safety of Residents

For alluvial fans and landslides, additional measures recommended by studies are listed below. In general, the following steps should be implemented to reduce risk of the four geologic hazards – alluvial fans, coalmines, landslides, and seismic hazards – affecting Whatcom County:

- Train local Fire District volunteers on using the County's reverse 911 notification system to message community members in alluvial fan areas when danger is eminent.
- Limit, and if possible, eliminate new development in high-risk hazard areas.
- If new development is to be permitted, mitigate new construction to address the specific geological hazard.
- Educate existing property owners at risk to help minimize the risk of the local hazards.
- If cost effective, buyout high-risk properties.
- As a last-case resort, consider engineering solutions to manage the specific geologic hazard, if proven effective.

The Whatcom County FCZD has developed hazard mitigation recommendations strategies for several of the more developed alluvial fans, including Canyon Creek and Jones Creek. See the Geologic Hazard section of this Plan for further details.



Lead Agency	FCZD
Funding Source	Local, state and FEMA
Current Status	Ongoing

EO-b. Public service announcements: Broadcast early warning video on local TV

Lead Agency	FCZD and Public Works River and Flood.
Funding Source	Local
Current Status	Ongoing

EO-c. Newsletters: Flood preparedness newsletter and related flood materials, such as homeowner's retrofit guide, etc. Annual distribution of flood preparedness newsletter to floodplain residents.

Lead Agency	FCZD and Public Works River and Flood.
Funding Source	Local
Current Status	Ongoing

EO-d. Direct Mailings: Direct mailings to lenders/realtors/insurance agents and repetitive flood loss properties annually.

Lead Agency	FCZD and Public Works River and Flood.
Funding Source	Local
Current Status	Ongoing

Drought/heat wave

No actions ongoing, discontinued, or completed for this hazard.

Earthquake

EQ-a. Support County EQ recovery: The FCZD will support Whatcom County in responding to any flood-related impacts that could result from an earthquake.

Lead Agency	FCZD
Funding Source	Local, State and FEMA
Current Status	Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding



FL-a. Comprehensive Flood Hazard Management Plan: The mitigation strategies and recommendations for all five reaches of the Nooksack River and other areas prone to flooding are explored in the Flooding section of this Plan. The River and Flood Division, Whatcom County Public Works has published a Comprehensive Flood Hazard Management Plan (CFHMP) for the Lower Nooksack River which details the projects on the lower river downstream of Deming. This plan was prepared for the Whatcom County FCZD and was adopted by the District's Board of Supervisors. Since its adoption in 1999, the Whatcom County FCZD has been working to implement the plan. A multi-year collaborative process to update the plan and expand it to include the Upper Forks is currently underway.

Lead Agency	FCZD
Funding Source	Local, State, EPA, NOAA
Current Status	Ongoing

FL-b. Adopt and Enforce Building Codes and Development Standards. Whatcom County River and Flood continues to review all developments permits within the floodplain to ensure compliance with Whatcom County Title 17, Flood Damage Prevention and the National Flood Insurance Program.

Lead Agency	Whatcom County Public Works River and Flood and Whatcom County Planning
Funding Source	Local, State, FEMA
Current Status	Ongoing

FL-c. Improve Flood Risk Assessment. In January of 2019, FEMA adopted new floodplain maps for most of the flooding sources in Whatcom County except for the Lower Nooksack River. Work is ongoing to complete and adopt new mapping for the Lower Nooksack River.

Lead Agency	Whatcom County FCZD and Public Works River and Flood
Funding Source	Local, State, FEMA
Current Status	Ongoing

FL-d. Improve Compliance with NFIP. Whatcom County continues to educate the real estate and development community on flood hazards and the requirements for building within special flood hazard areas as part of the Community Rating System. An educational flyer is also being developed to help simplify the steps in permitting developments in the floodplain for property owners and their agents.



Lead Agency	Whatcom County Public Works River and Flood
Funding Source	Local, Private
Current Status	Ongoing

FL-e. Manage the Floodplain Beyond Minimum Requirements. Whatcom County’s flood damage prevention ordinance requires new and substantially improved structures to be elevated one foot above the base flood elevation.

Lead Agency	Whatcom County Public Works River and Flood
Funding Source	Local
Current Status	Ongoing

FL-f. Participate in the CRS. Whatcom County River and Flood administers the CRS program in Whatcom County and continues to maintain a CRS rating of 6, resulting in a 20% discount on flood insurance premiums for unincorporated Whatcom County residents.

Lead Agency	Whatcom County Public Works River and Flood
Funding Source	Local, State, FEMA
Current Status	Ongoing

FL-g. Remove Existing Structures from Flood Hazard Areas. The FCZD acquired three additional residences in Marietta and removed the structures from the parcels. Additionally, the FCZD acquired a large agricultural parcel in the floodplain north of Ferndale for future wetland mitigation and the existing residence was removed.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, State, FEMA
Current Status	Ongoing

FL-h. Improve Stormwater Drainage System Capacity. Improved stormwater conveyance has been the focus of the BBWARM District (Birch Bay area of Whatcom County Stormwater Program) over the past decade. Projects from 2015 through 2020 include: Seaview Drive Drainage upgrade, replaced failing storm conveyance system, 2016 – Birch Point Drainage repair, replaced undersized marine outfall which resulted in regular flooding and landslides,



2017 – upgraded an inlet and increased headwall bank height to reduce regular flooding of a neighborhood, 2018 – regraded ditches and replaced driveway culverts to improve drainage system capacity, 2019 – major capacity upgrade consisting of 3,000 feet of pipe and new outfall.

Another focus area within Whatcom County for stormwater improvements is the Lake Whatcom watershed which provides the drinking water to over 100,000 people. Projects typically focus on conveyance and treatment improvements which seek to reduce phosphorus runoff into the lake. Projects in this area from 2015 – 2020 include: Academy Road Improvements, a water quality treatment facility utilizing “Filtera” media and sand polishing cells, 2016- Cedar Hills/Euclid, a variety of water quality treatment methods including swales, treatment cells and cartridge vaults, 2018 – Agate Bay Phase 1, installation of 3 cartridge filter vaults and conveyance upgrades, 2019 – Agate Bay Phase 2, installation of 3 cartridge filter vaults and conveyance upgrades, 2020 – North Shore/Edgewater cartridge treatment vault and conveyance upgrade.

Lead Agency	Whatcom County FCZD/Public Works Stormwater and Engineering
Funding Source	Local, State
Current Status	Ongoing

FL-i. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures.

Whatcom County Maintenance & Operations continues to maintain the drainage system within the County’s rights-of-way. Whatcom County River and Flood continues to with drainage and diking districts and Subzones to maintain the drainage systems and flood control structures within their districts.

Lead Agency	Whatcom County Public Works Maintenance and Operations
Funding Source	Local
Current Status	Ongoing

FL-j. Protect Infrastructure. The Deming Levee Improvement Project was constructed in 2017; a portion of the upstream end of the levee was set back from the river and raised to protect Nooksack tribal infrastructure, including their sewage treatment facilities for the former casino, as well as the town of Deming. Capital projects aimed at addressing deficiencies and/or repairing damages caused by floods. were conducted on the following levees during the 2016-2020 timeframe: Twin View Levee, Hannegan Levee, Red River Levee, Rayhorst Levee and Marine Drive Levee. Emergency projects were implemented at Rutsatz Road and Truck Road to



prevent erosion damage to the roadways. Sediment traps were constructed on High Creek to reduce flooding of the Mt Baker Highway. A project to reduce the threat of erosion of the Abbott Levee and Abbott Road is currently in final design and planned for construction in 2021.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, state, USACE, Private, Other
Current Status	Ongoing

FL-k. Protect Critical Facilities. Detailed design work is underway for two levee improvement projects to protect critical infrastructure in the Cities of Lynden and Ferndale. Improvements to the Lynden Levee adjacent to their sewage treatment plant are planned for construction in 2021 by the USACE; this work is being done in conjunction with a FCZD project to realign the creek that runs behind and under the levee. Detailed design for improvements to the Ferndale Levee is still in the early stages; this levee protects the City's water and wastewater treatment plants and the PUD's water treatment facility. Detailed design and land acquisition is also underway for the Jones Creek deflection berm that will mitigate debris flood hazards to the Acme Elementary School.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, state, FEMA, Private, Other
Current Status	Ongoing

FL-m. Protect and Restore Natural Flood Mitigation Features. Incorporating natural flood mitigation features into flood control structure design has become the new norm. The Deming Levee was set back connecting more floodplain area and a disconnected tributary was reconnected to the river. The Lynden Levee project includes realigning a small tributary behind the levee farther from the wastewater treatment plant facilities and improving habitat. The Abbott Levee project has been designed as habitat structures along the bank that will reduce the risk of the river eroding into the levee prism.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, state, FEMA, Private, Other
Current Status	Ongoing



Alluvial Fans

AF-a. Map and Assess Alluvial Fans Hazards. A detailed hazard assessment was performed for the Glacier-Gallup alluvial fans in the town of Glacier. This work will be used in developing a long-term solution to addressing the levee deficiency on the Glacier Levee and reducing risk to the town of Glacier.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local
Current Status	Ongoing

AF-b. Manage Development in Alluvial Fan Hazard Areas. Whatcom County Planning and Development Services continues to review new development proposals in alluvial fans to ensure compliance with the Critical Areas Ordinance.

Lead Agency	Whatcom County Planning
Funding Source	Local, Private
Current Status	Ongoing

AF-c. Promote or Require Site and Building Design Standards to Minimize Risk on Alluvial Fans. Residential development that has occurred in regulated Alluvial Fan Hazard Areas has been subject to recommendations prepared by a qualified professional (Licensed Geologist) intended to mitigate hazards posed to the development and life-safety. Recommendations primarily consist of siting recommendations intended to achieve hazard avoidance to the maximum extent feasible as well as prevent the transfer of risk to adjacent or down-stream properties. In the event that avoidance cannot be accomplished due to site constraints, estimates of debris flow/flood conditions anticipated during a code-defined event (500-year recurrence debris flow) are provided by the qualified professional for incorporation in the foundation and building design by the project structural engineer. Structural measures employed vary based on proximity to the hazard source and the severity of estimated flow/flood conditions, but typically included elevating finish floor above estimated flow/flood depths, deepened foundation embedment with armoring to prevent scour, and increased foundation reinforcement to withstand flood and debris impacts or pier foundations to allow flow through of flood waters and debris.

Lead Agency	Whatcom County Planning
Funding Source	Local, Private
Current Status	Ongoing



AF-d. Remove Existing Buildings and Infrastructure from Erosion/Alluvial Fan Hazard Areas.

One resident on the Jones Creek alluvial fan is being relocated to enable construction of the Jones Creek deflection berm. Once acquired all structures will be removed.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, State, FEMA
Current Status	Ongoing

AF-e. Develop Basin-Specific Plans for Alluvial Fan Hazard Areas. With the Glacier-Gallup hazard assessment now complete, work is underway to evaluate alternatives to address the deficiencies on the Glacier Levee and reduce the risk to the town of Glacier.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local
Current Status	Ongoing

AF-f. Construct Mitigation Measures on Alluvial Fan Hazard Areas. Detailed design of the Jones Creek deflection berm is ongoing and will be completed once the final properties needed for construction of the deflection berm are acquired.

Lead Agency	Whatcom County FCZD/Public Works River and Flood
Funding Source	Local, State, FEMA, Private
Current Status	Ongoing

AF-g. Increase Awareness of Alluvial Fan Hazards. Whatcom County Public Works participates with the Acme Fire District during their annual outreach activities with the community of Acme; these have included public meetings, response and evacuation planning and reverse 911 call outs to the community. Community involvement is also an integral part of the Glacier-Gallup project; a community meeting was held at the start of the project in 2019 and more are planned as the project proceeds.

Lead Agency	Whatcom County FCZD/Public Works and Whatcom Unified Emergency Management.
Funding Source	Local
Current Status	Ongoing

Landslide/erosion



No actions ongoing, discontinued, or completed for this hazard.

Landslide Subsidence

No actions ongoing, discontinued, or completed for this hazard.

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

No actions ongoing, discontinued, or completed for this hazard.

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

TSU-a. Ensure the Welfare and Safety of Residents. With new data available, tsunamis have been identified as a greater threat to Whatcom County and the jurisdictions within than previously thought. Education about tsunamis and acceptance of the threat must precede any plans. Both civic leaders and the public need to understand that there is a threat, and further, have a clear understanding of what the threat entails. Even with the current new data, there is not a clear understanding of the extent of a tsunami threat. More data needs to be obtained, specific to each community along the western border of Whatcom County. There is more tsunami mitigation plan information contained within the tsunami section of this Plan.

The following steps have been implemented to reduce tsunami risk:

- Finish all tsunami inundation mapping for the coast line of Whatcom County.
- Secure tsunami hazard signs from the State of Washington to post in the newly mapped inundation areas.
- Limit, and if possible, eliminate new development in high-risk hazard areas.
- If new development is to be permitted, mitigate new construction to address the specific tsunami hazard.



- As funding permits acquire more tsunami AHAB sirens for the remaining areas threatened by inundation.

The FCZD will support Whatcom County in responding to flooding associated with a tsunami.

Lead Agency	FCZD
Funding Source	Local, state and FEMA
Current Status	Ongoing

Volcanoes

VOL-a. Reduce Risk from Volcanic Activity. Raising awareness and educating both civic leaders and the public in the areas subject to volcano-related damage is very important. Recent statewide campaigns and the news-related stories of volcanoes in the state have sparked interest for those living in the shadow of Mount Baker, Whatcom County's volcano. More awareness and education needs to take place, especially with regards to warning signals of a volcanic eruption and the types of damage that can occur with an eruption with special attention to Lahars. There is more information about volcano-hazard mitigation planning under the Volcano section of this Plan.

The following steps have been implemented to reduce risk of volcanic activity:

- Finish the Mt. Baker / Glacier Peak Volcanic Eruption Plan, and complete a table top exercise based on it.
- Continue to message the citizens who reside in Glacier and Mt. Baker areas on the risks of living on a volcano.

The FCZD will support Whatcom County in responding to any flood-related impacts that could result from a volcano.

Lead Agency	FCZD
Funding Source	Local, state and FEMA
Current Status	Ongoing

Wildfire

WF-a. Create Mitigation Strategies in Cooperation with State and Federal Departments. In cooperation with fire managers from WDNR, NW Region, three mitigation strategies were developed to address Whatcom County's fire hazards:



- Inter-Agency Cooperation
- County-wide Wildland Fire Prevention
- Wildland/Urban Interface Communities at Risk

The FCZD will support Whatcom County in responding to any flood-related impacts that could result from any wildfires. More information and details can be found in the Wildland Fire section of this Plan.

Lead Agency	FCZD
Funding Source	Local, state and FEMA
Current Status	Completed

Winter storms/Freezes

No actions ongoing, discontinued, or completed for this hazard.

Multiple Hazards

No actions ongoing, discontinued, or completed for this hazard.



Flood Control Zone District 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Flood Control Zone District-Specific Hazard Mitigation Goals

The 1999 Lower Nooksack River CFHMP included the following community-specific mitigation planning goals for the Flood Control Zone District:

- FCZD Goal A:** Protect lives
- FCZD Goal B:** Minimize damage to public and private property and to public resources
- FCZD Goal C:** Provide a comprehensive understanding of the river
- FCZD Goal D:** Propose projects with a positive environmental benefit
- FCZD Goal E:** Maintain ongoing jurisdictional involvement and cooperation
- FCZD Goal F:** Emphasize long-term solutions
- FCZD Goal G:** Minimize public expenditures related to flooding

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Flood Control Zone District considered mitigation options related to those that Whatcom County itself has considered, especially those related to flooding and alluvial fans, because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for the Flood Control Zone District. Some options have already been implemented or are ongoing in Flood Control Zone



District, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

Whatcom County FCZD chose to prioritize its hazard mitigation strategies according to hazard, not by specific facilities. The FCZD is currently very involved with flood hazard mitigation and will continue with flooding as the primary mitigation project priority. Flood-related mitigation related to geological hazards is also a District priority.

The mitigation actions in this section are new actions that Flood Control Zone District has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. Flood Control Zone District is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Priority:	H (High); M (Medium); L (Low)
Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
Funding Source:	Local; State; FEMA; Private; Other
Estimated Cost:	Actual; Estimated



Flood Control District Identified Mitigation Actions 2021-2025

FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Education and Outreach Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>EO-a. Ensure Welfare and Safety of Residents</i>	1	FCZD	M	O	Local, State, and FEMA	Staff
	<i>EO-b. Public Service Announcements</i>	1	FCZD and Public Works River and Flood	M	O	Local	
	<i>EO-c. Newsletters</i>	2	FCZD and Public Works River and Flood	M	O	Local	
	<i>EO-d. Direct Mailings</i>	2	FCZD and Public Works River and Flood	M	O	Local	
Hazard Specific (Reference: <u>Whatcom County</u>)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Mitigation Ideas)							
Dam/Levee Failures (See: Flooding)	There are no new actions considered/all actions ongoing, discontinued, or completed						
Droughts/Heat Waves	There are no new actions considered/all actions ongoing, discontinued, or completed						
Earthquakes	<i>EQ-a. Support County EQ Recovery</i> The FCZD will support Whatcom County in responding to any flood-related impacts that could result from an earthquake	1, 3, 5	FCZD	L	O	Local, State, and FEMA	Unknown
Extreme Temperatures	There are no new actions considered/all actions ongoing, discontinued, or completed						
Flooding	<i>FL-a Ongoing -- Comprehensive Flood Hazard Management Plan</i>	1, 5	FCZD	M	O	Local, State, NOAA, EPA	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>FL-b Ongoing -- Adopt and Enforce Building Codes and Development Standards</i>	1	Whatcom County Public Works River and Flood and Whatcom County Planning	M	O	Local State, FEMA	
	<i>FL-c Ongoing -- Improve Flood Risk Assessment</i>	1	Whatcom County FCZD and Public Works River and Flood	M	O	Local, State, FEMA	
	<i>FL-d Ongoing -- Improve Compliance with NFIP</i>	1	Whatcom County Public Works River and Flood	M	O	Local, Private	
	<i>FL-e Ongoing -- Manage the Floodplain Beyond Minimum Requirements</i>	1	Whatcom County Public Works River and Flood	M	O	Local	
	<i>FL-f Ongoing -- Participate in the CRS</i>	1	Whatcom County Public	M	O	Local, State, FEMA	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Works River and Flood				
	<i>FL-g Ongoing -- Remove Existing Structures from Flood Hazard Areas</i>	1, 3	Whatcom County FCZD/Public Works River and Flood	M	O	Local, State, FEMA	
	<i>FL-h Ongoing -- Improve Stormwater Drainage System Capacity</i>	1	Whatcom County FCZD/Public Works Stormwater and Engineering	M	O	Local, State	
	<i>FL-i Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1	Whatcom County Public Works Maintenance and Operations	M	O	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>FL-j Ongoing -- Protect Infrastructure</i>	1	Whatcom County FCZD/Public Works River and Flood	M	O	Local, state, U SACE, Private, Other	
	<i>FL-k Ongoing -- Protect Critical Facilities</i>	1	Whatcom County FCZD/Public Works River and Flood	M	O	Local, state, FEMA, Private, Other	
	<i>FL-m. Protect and Restore Natural Flood Mitigation Features</i>	1, 3	Whatcom County FCZD/Public Works River and Flood	M	O	Local, state, FEMA, Private, Other	
	F-1 Incorporate Flood Mitigation in Local Planning	1,2	Whatcom County FCZD/Public Works River and	H	L	Local, state, FEMA	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Flood and Whatcom County Planning				
	F-2 Form Partnerships to Support Floodplain Management	1,4	Whatcom County FCZD/Public Works River and Flood	H	L	Local, state, NOAA, Private	
	F-3 Limit or Restrict Development in Floodplain Areas	1,3	Whatcom County Public Works River and Flood and Whatcom County Planning	H	L	Local	
	FL-4 Improve Stormwater Management Planning	1,5	Whatcom County FCZD/Public Works Stormwater	M	L	Local, State	
	FL-5 Adopt Polices to Reduce Stormwater Runoff	3,5	Whatcom County Public Works	L	L	Local, State	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Engineering Services				
	FL-6 Establish Local Funding Mechanisms for Flood Mitigation	1, 4	Whatcom County FCZD	L	L	Local	
	FL-7 Elevate or Retrofit Structures and Utilities	1, 4	Whatcom County Departments do not engage in this activity as public funds are not spent on private infrastructure. But these actions may be taken in the future.	L	L	Local, State, FEMA	
	FL-8 Flood proof Residential and Non-Residential Structures	1, 4	Whatcom County Departments do not engage in this activity as	L	L	Local, State, FEMA	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			public funds are not spent on private infrastructure. But these actions may be taken in the future.				
	FL-9 Preserve Floodplains as Open Space	1, 3	Whatcom County FCZD/Public Works River and Flood and Whatcom County Planning.	H	L	Local, State, FEMA, Private	
	FL-10 Increase Awareness of Flood Risk and Safety	2	Whatcom Unified Emergency Management	M	L	Local	
	FL-11 Educate Property Owners about Flood Mitigation Techniques	2	Whatcom County FCZD/Public	M	L	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			Works River and Flood.				
Landslide/ Erosion	There are no new actions considered/all actions ongoing, discontinued, or completed						
Land Subsidence	There are no new actions considered/all actions ongoing, discontinued, or completed						
Lightning	There are no new actions considered/all actions ongoing, discontinued, or completed						
Severe Storms	There are no new actions considered/all actions ongoing, discontinued, or completed						
Severe Wind	There are no new actions considered/all actions ongoing, discontinued, or completed						
Volcanoes	<i>VOL-a. Reduce risk from volcanic activity</i>	1, 2, 5	FCZD	M	O	Local, State, and FEMA	Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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FLOOD CONTROL ZONE DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Tsunami	<i>TSU-a. Ensure the welfare and safety of residents.</i>	1	FCZD	L	O	Local, State, and FEMA	Staff
Wildfires	<i>WF-a. Create Mitigation Strategies in Cooperation with State and Federal Departments</i>	1, 5	FCZD	Complete	Complete	Local, State, FEMA	
Winter Storms/ Freezes (Severe Winter Weather)	There are no new actions considered/all actions ongoing, discontinued, or completed						
Multiple Hazards	There are no new actions considered/all actions ongoing, discontinued, or completed						
Advanced Mitigation Projects (Dream List)							

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Flood Control District Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



Flood Zone Control District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
EDUCATION AND OUTREACH						
<i>EO-a. Ensure Welfare and Safety of Residents:</i>						
<i>EO-b. Public service announcements</i>						
<i>EO-c. Newsletters</i>						
<i>EO-d. Direct Mailings</i>						
<i>Add New Action Items if Applicable</i>						
DAM/LEVEE FAILURES						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						
EARTHQUAKES						
<i>EQ-a. Support County EQ recovery</i>						
<i>Add New Action Items if Applicable</i>						
VOLCANOES						
<i>VOL-a. Reduce Risk from Volcanic Activity</i>						
<i>Add New Action Items if Applicable</i>						
FLOODING						
<i>FL-a. Comprehensive Flood Hazard Management Plan</i>						
<i>FL-b. Adopt and Enforce Building Codes and Development Standards</i>						



Flood Zone Control District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>FL-c. Improve Flood Risk Assessment</i>						
<i>FL-d. Join or Improve Compliance with NFIP</i>						
<i>FL-e. Manage the Floodplain Beyond Minimum Requirements</i>						
<i>FL-f. Participate in the CRS</i>						
<i>FL-g. Remove Existing Structures from Flood Hazard Areas</i>						
<i>FL-h. Improve Stormwater Drainage System Capacity</i>						
<i>FL-i. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>						
<i>FL-j. Protect Infrastructure</i>						
<i>FL-k. Protect Critical Facilities</i>						
<i>FL-l. Construct Flood Control Measures</i>						
<i>FL-m. Protect and Restore Natural Flood Mitigation Features</i>						
F-1 Incorporate Flood Mitigation in Local Planning						
F-2 Form Partnerships to Support Floodplain Management						
F-3 Limit or Restrict Development in Floodplain Areas						
FL-4 Improve Stormwater Management Planning						
FL-5 Adopt Policies to Reduce Stormwater Runoff						
FL-6 Establish Local Funding Mechanisms for Flood Mitigation						
FL-7 Elevate or Retrofit Structures and						



Flood Zone Control District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Utilities						
FL-8 Flood proof Residential and Non-Residential Structures						
FL-9 Preserve Floodplains as Open Space						
FL-10 Increase Awareness of Flood Risk and Safety						
FL-11 Educate Property Owners about Flood Mitigation Techniques						
Add New Action Items if Applicable						
ALLUVIAL FANS						
AF-a. Map and Assess Alluvial Fans Hazards						
AF-b. Manage Development in Alluvial Fan Hazard Areas						
AF-c. Promote or Require Site and Building Design Standards to Minimize Risk on Alluvial Fans						
AF-d. Remove Existing Buildings and Infrastructure from Erosion/Alluvial Fan Hazard Areas						
AF-e. Develop Basin-Specific Plans for Alluvial Fan Hazard Areas						
AF-f. Construct Mitigation Measures on Alluvial Fan Hazard Areas						
AF-g. Increase Awareness of Alluvial Fan Hazards						
Add New Action Items if Applicable						
LANDSLIDES/EROSION						
Add New Action Items if Applicable						



Flood Zone Control District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
LAND SUBSIDENCE						
Add New Action Items if Applicable						
TSUNAMI						
TSU-a. Ensure the Welfare and Safety of Residents						
Add New Action Items if Applicable						
WILDFIRES						
WF-a. Create Mitigation Strategies in Cooperation with State and Federal Departments						
Add New Action Items if Applicable						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
Add New Action Items if Applicable						
EXTREME TEMPERATURES						
Add New Action Items if Applicable						
LANDSLIDE						
Add New Action Items if Applicable						
LIGHTNING						
Add New Action Items if Applicable						
SEVERE WIND						
Add New Action Items if Applicable						
MULTIPLE HAZARDS						



Flood Zone Control District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						



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LAKE WHATCOM WATER AND SEWER DISTRICT

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Bellingham, WA 98229
360.734.9224 / 360.296.4590

Approving Authority

Board of Commissioners
Lake Whatcom Water and Sewer District
1220 Lakeway Drive
Bellingham, WA 98229
360.734.9224

Planning Process

The Lake Whatcom Water and Sewer District completed an update to the District-specific content contained in the prior (2016) Plan through District department head review and formal adoption by the Board of Commissioners. In addition, District staff participated in all coordination meetings hosted by the Whatcom County Sheriff's Office Division of Emergency Management, updated the District's critical facility information based upon facilities constructed or improved since 2016, and incorporated a 2020 asset valuation conducted on all District-owned facilities. The District performed public outreach throughout the planning process through routine staff updates on the revision progress during regularly scheduled Board meetings, inviting public participation through the District's social media accounts, and ultimately through resolution adoption by the District Board during a regularly scheduled public meeting.

Key Contributor List

- Justin Clary, General Manager
- Bill Hunter, District Engineer/Assist. General Manager
- Rich Munson, Safety Officer

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the Lake Whatcom Water and Sewer District will be used as a tool when the District



updates other plans and programs, such as the following:

- Emergency Response Plan
- Comprehensive Sewer Plan
- Water System Comprehensive Plan
- Water and Sewer Utility Capital Improvement Programs

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for Lake Whatcom Water & Sewer District

For each Whatcom County-led Plan revision, the District will review and revise District-specific content, perform public outreach via applicable avenues, and undergo formal Board of Commissioner adoption of the revised Plan during a regularly scheduled public meeting.

Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	not applicable
Ongoing public education or information programs	Yes	Periodic posts to District Facebook and web pages providing emergency preparedness information; periodic presentation to Sudden Valley Community Assoc. board regarding capital project and operational information
School-related programs for natural hazard safety	No	not applicable
Public education or information program	Yes	Water conservation education to limit system capacity impacts; semi-annual utility bill inserts on emergency and winter weather preparedness



**SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT**

StormReady certification	No	not applicable
Firewise Community certification	No	not applicable
Public-Private Partnership initiatives addressing disaster-related issues	No	not applicable
Other	none	not applicable

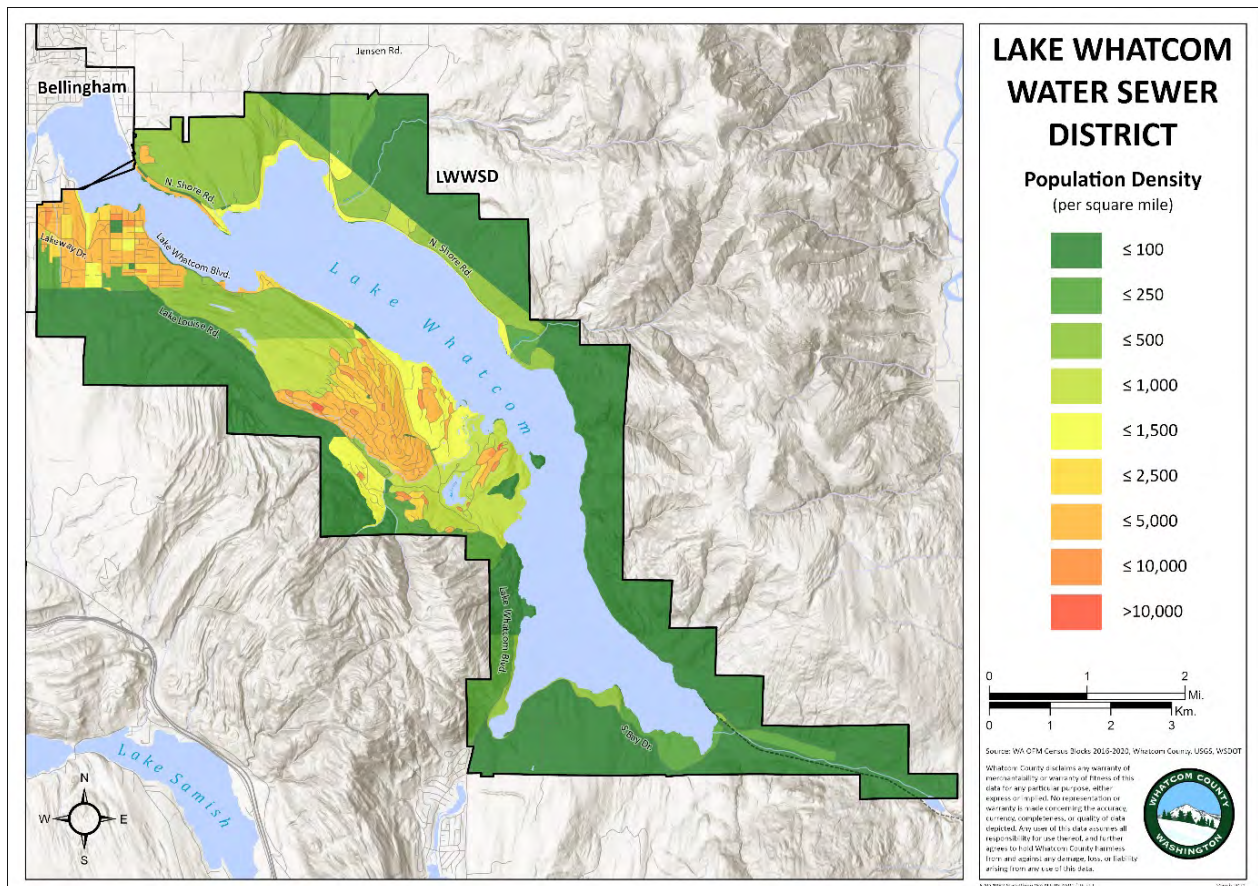


Overview of Lake Whatcom Water & Sewer District, Hazards, and Assets

Geography of Lake Whatcom Water & Sewer District

District Population	12,000 (2020 estimate)
Total area	18 sq. mi.

This map displays the service area for the Lake Whatcom Water and Sewer District, as defined in the resolution adopted by the Whatcom County Board of Commissioners on November 21, 1968, that created the District.

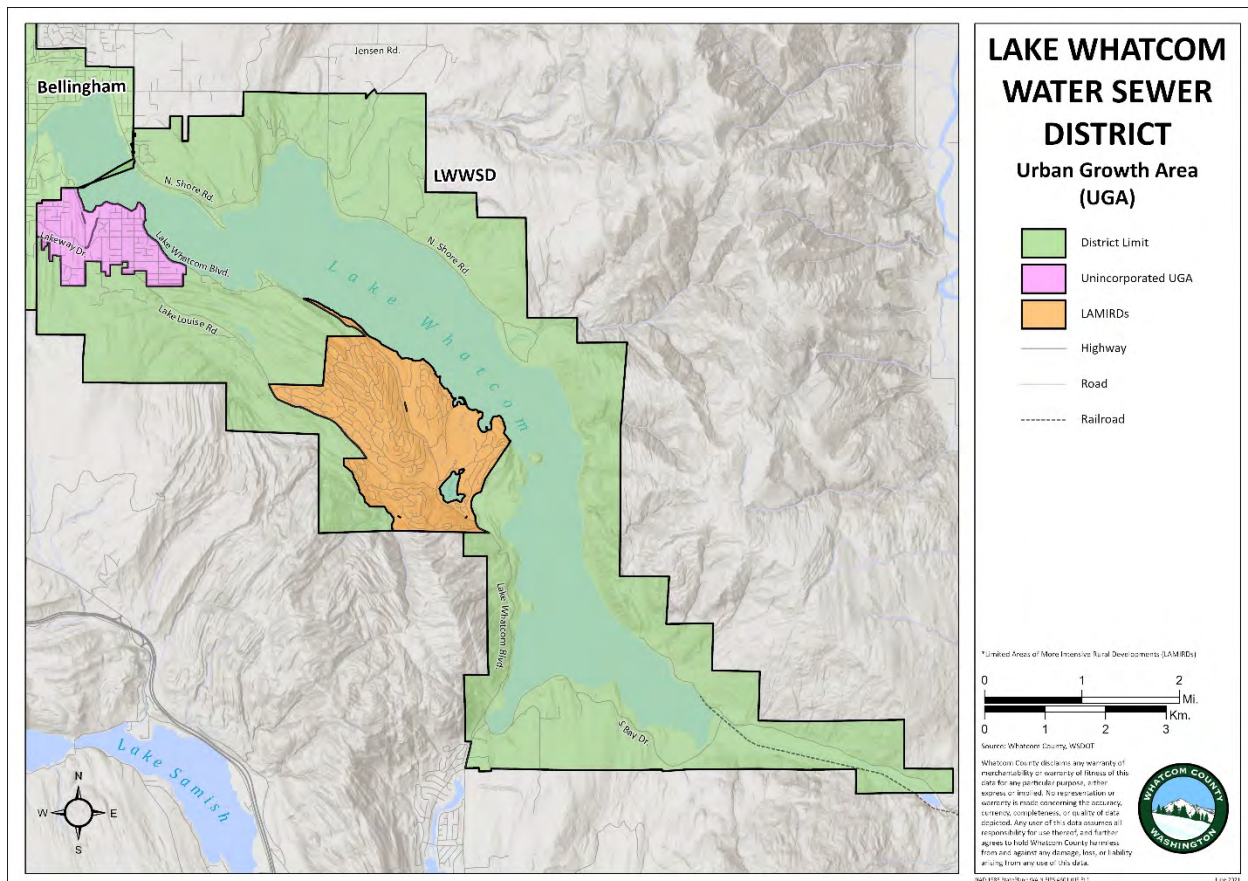


Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



Growth Trends

The District's service area includes the City of Bellingham's Geneva Urban Growth Area, as well as the Sudden Valley LAMIRD (limited area of more intense rural development land use designation in Whatcom County Code). The majority of growth within the District since the last Plan update, as well as future growth projections, occurs in these two areas.





Presence of Hazards and their Impacts in the Lake Whatcom Water & Sewer District

Throughout its over 50-year existence, the District has had limited impact to its services and/or infrastructure caused by natural hazard-related events, with those that have occurred being landslide and riverine flooding caused by severe storm events. Of those events that have impacted District services, all have been ephemeral, lasting no more than a couple days, with most having services restored within 24 hours.

With the District wholly located within the environmentally sensitive Lake Whatcom Watershed, land use restrictions have been adopted within the Whatcom County Comprehensive Plan and Whatcom County Code to limit further development within the watershed. As a result, the District has witnessed relative low growth since issuance of the 2016 Plan, with much of the growth that has occurred being in the Sudden Valley LAMIRD (limited area of more intense rural development land use designation) and Geneva UGA. While the topography of Sudden Valley is largely comprised of lands classified as steep slopes (greater than 15%), all development has occurred on previously existing parcels served by existing District infrastructure. As a result, there has been limited need for infrastructure expansion projects that required incorporation of natural hazard-resilient measures.

In the table below is a list of the major hazards that affect Whatcom County. The second column provides the percentage of the Lake Whatcom Water and Sewer District's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	100%	High	All land susceptible to seismic shaking. Anticipated loss of water/sewage systems for weeks to months, with potential for release of untreated sewage to Lake Whatcom.
	Liquefaction	13.5%	Mod	Areas susceptible to liquefaction are primarily limited to the areas immediately surrounding the mouths of Austin, Carpenter, Olson and Smith creeks (alluvial deposits). Infrastructure in these areas is relatively limited (water/sewer pipelines and 5 sewer lift stations), all of which could be damaged, resulting in a loss of service to some customers.
	Landslide	11.1%	Mod	Areas susceptible to landslide are primarily limited to the Sudden Valley area where slopes are predominately 15% or greater. Landslides could impact (or access to) critical infrastructure, including water/sewer pipelines, water pump stations and reservoirs, and sewer lift stations.
	Volcano	0%	Low	Unlikely that a lahar from a major eruption would enter service area; however, ash fallout could impact lake water quality (drinking water source).
	Tsunami	0%	None	Not within a tsunami inundation zone.
	Mine Hazards	0.8%	None	No known mines are located within the service area.
Hydro-logical	Flooding	34.1%	Mod	Prolonged periods of precipitation may create significant flows in Austin, Beaver, Carpenter, Olson and Smith creeks that could impact (or access to) infrastructure. An example includes the 1983 flood event



SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT

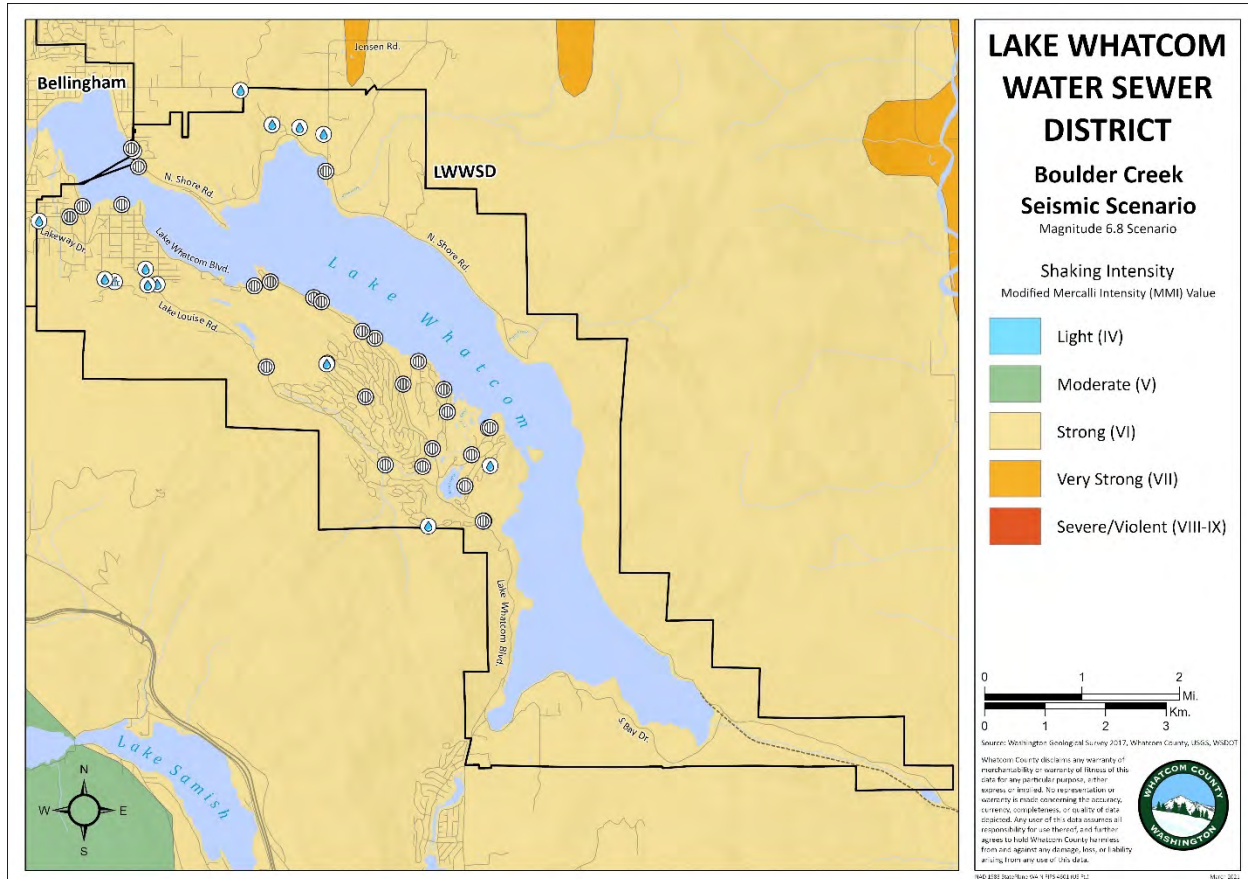
				that resulted in Austin Creek washing out bridges and a District water main.
Meteorological	Wildfire	44.3%	Mod	Much of service area is forested, including areas of development. As is indicated in the Wildland-Urban Interface map, much of the District's critical infrastructure could be impacted by wildfires.

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

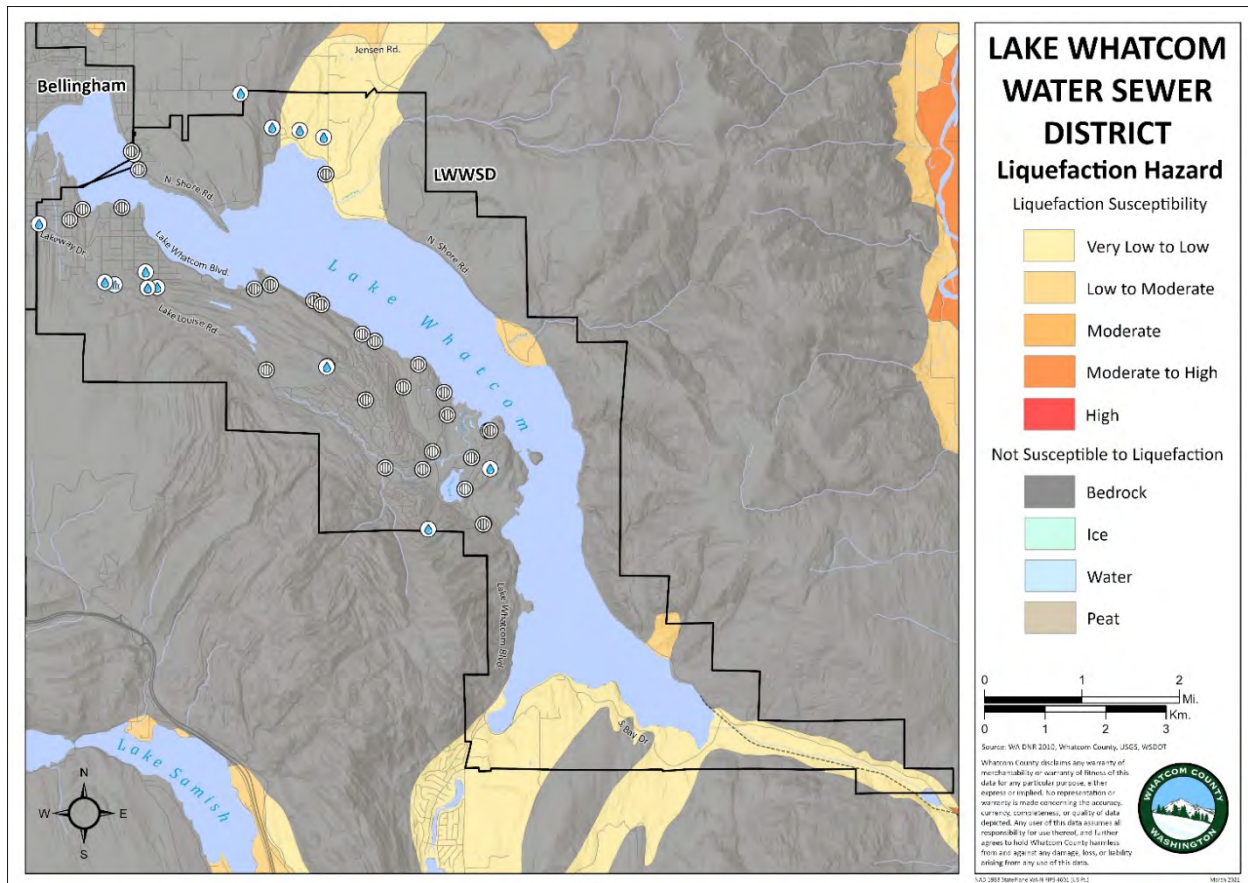


Natural Hazard Maps

The following figures depict the natural hazards present within the jurisdiction.



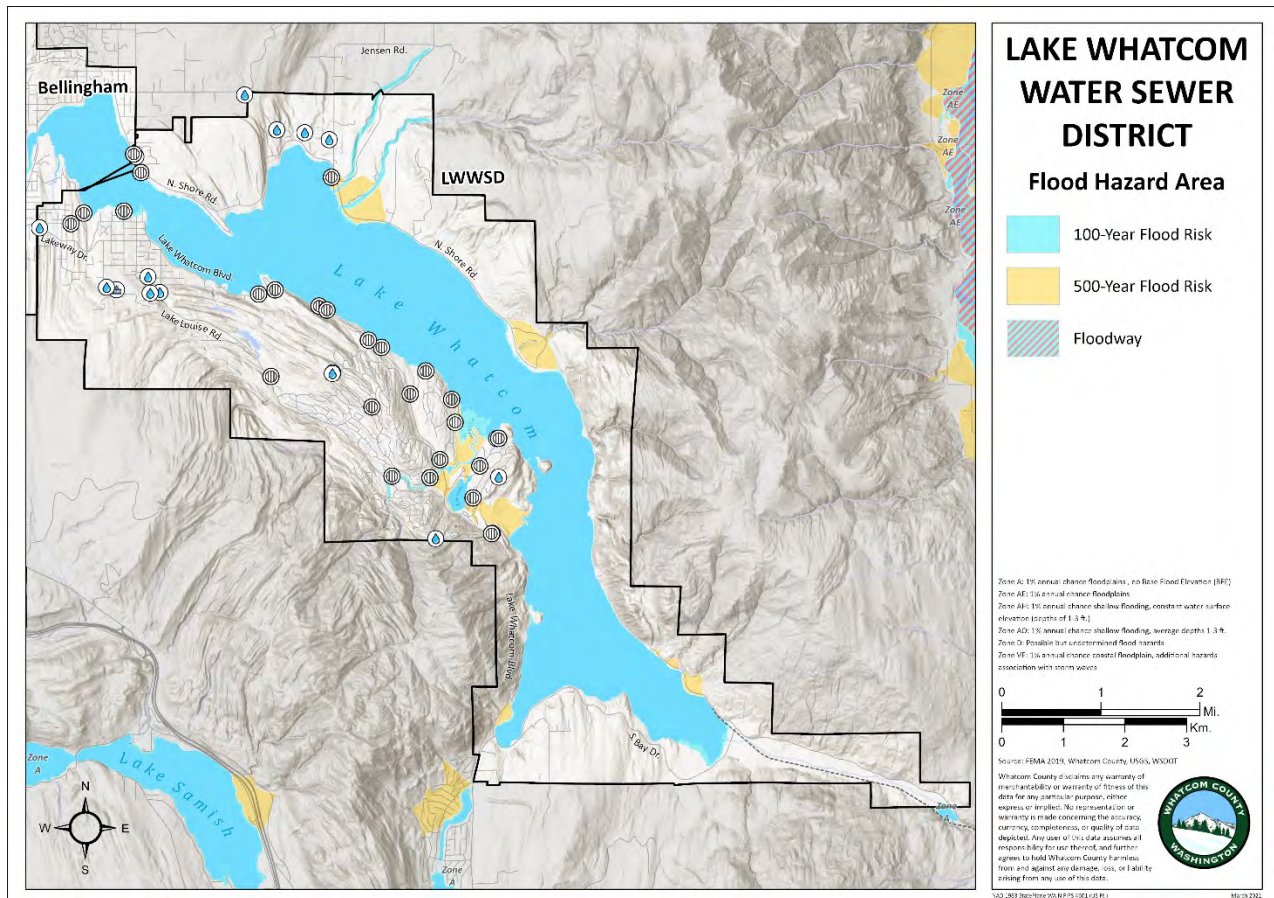
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



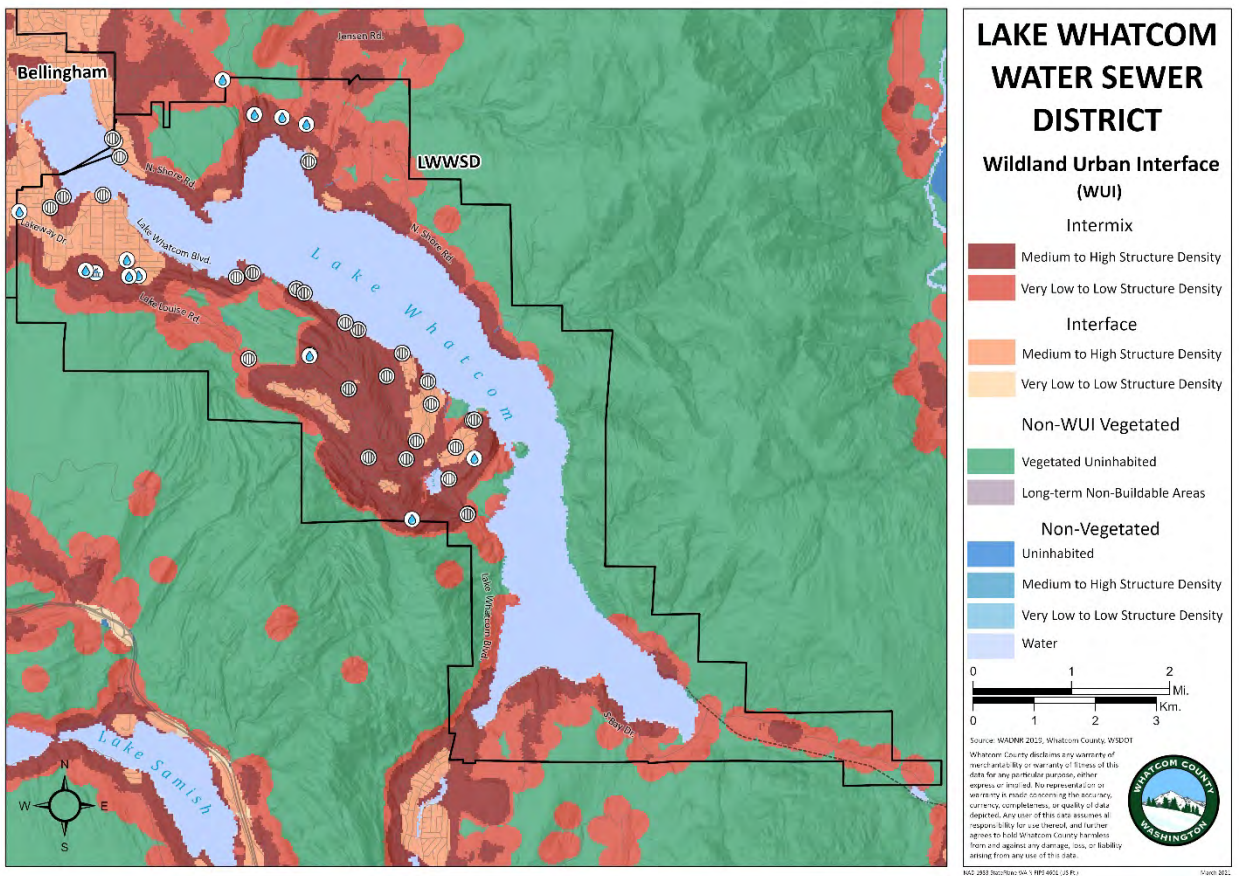
SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT



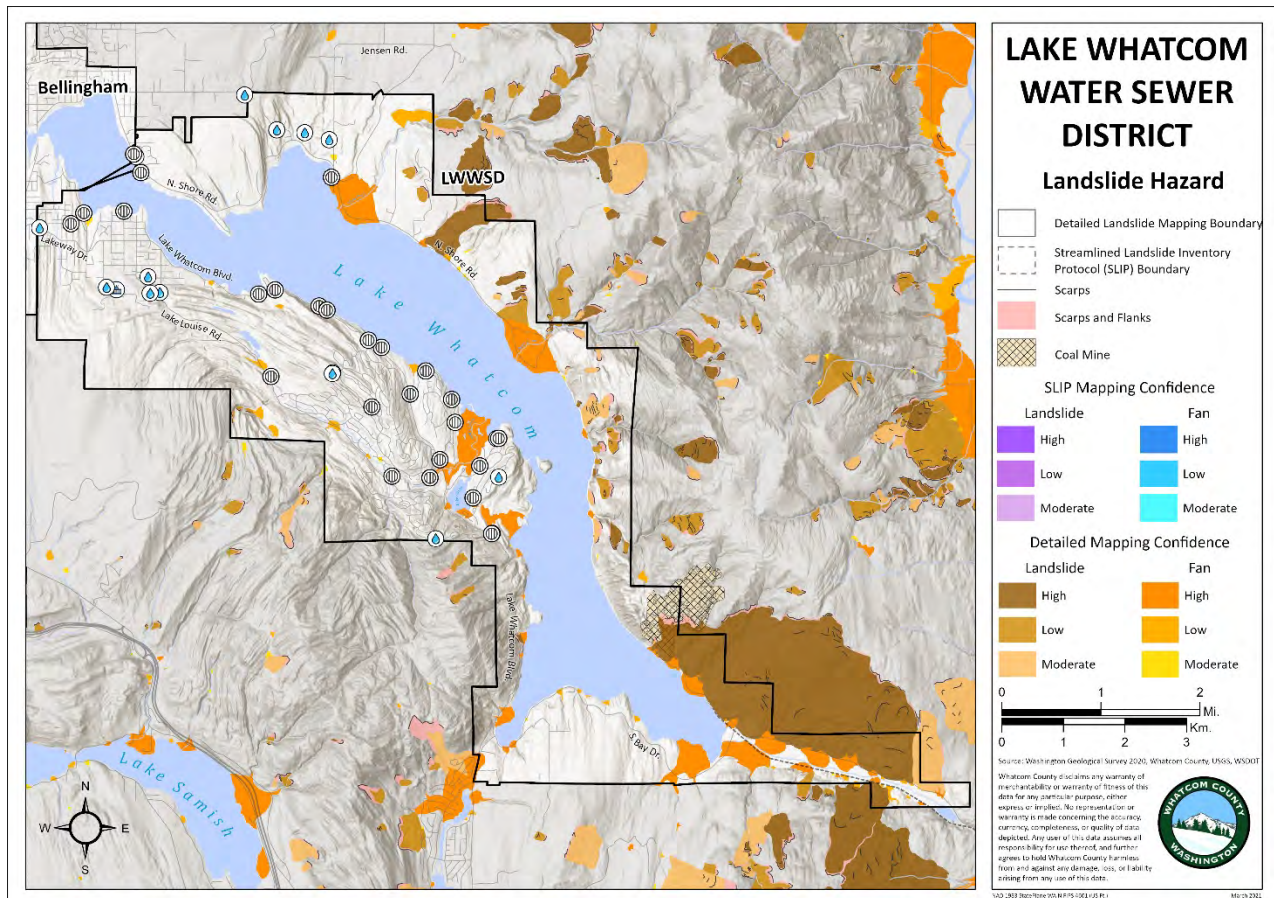
FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.



Washington Geological Survey (WGS) 2020 Washington landslide inventory data compiled following streamline landslide mapping protocol (SLIP). SLIP was developed by the WGS's Landslide Hazards Program to help geologists rapidly map landslide landforms from lidar. This data shows both detailed mapping and SLIP landslide data.



Lake Whatcom Water & Sewer District Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value (2020)	Notes
Administration Building	EF	1	1220 Lakeway Dr, Bellingham, WA	\$964,000	Functions as District headquarters and EOC; located outside District
Post Point Wastewater Treatment Plant	EF	3	200 McKenzie Ave, Bellingham, WA	\$6,254,284	City of Bellingham-owned facility that treats District-generated wastewater under an interlocal agreement
Maintenance Facility	EF	2	1010 Lakeview St, Bellingham, WA	\$1,271,800	Stores all equipment, materials and spare parts, serves as backup EOC
Sudden Valley Water Treatment Plant/Chlorine Contact Reservoir	EF	3	26 Morning Beach Dr, Bellingham, WA	\$3,194,700	Produces drinking water for South Shore System (3,880 connections)
Sudden Valley WTP Booster Station	EF	3	26 Morning Beach Dr, Bellingham, WA	\$1,327,200	Pumps treated water from SVWTP to South Shore System
Agate Heights Water Treatment Plant/Well Site	EF	3	3320 Sunny Cove Ct, Bellingham, WA	\$365,200	Produces drinking water for Agate Heights System (50 connections)
Johnson Well Site	EF	1	3471 Agate Bay Ln, Bellingham, WA	\$139,200	Drinking water source for 2 connections
Eagleridge Booster Station	EF	1	1708 Northshore Rd, Bellingham, WA	\$423,500	Intertie with City of Bellingham providing drinking water to Eagleridge System (70 connections)
Coronado Booster Station	EF	1	4826 Lookout St, Bellingham, WA	\$58,300	Drinking water pump station



**SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT**

Geneva Intertie	EF	3	3914 Lakeway Dr, Bellingham, WA	\$116,100	Intertie with City of Bellingham for emergency water supply
Agate Heights Booster Station	EF	2	3363 Opal Terrace, Bellingham, WA	\$119,900	Drinking water pump station
Beecher Booster Station	EF	1	4748 Columbus Ave, Bellingham, WA	\$69,300	Drinking water pump station
South Geneva Booster Station	EF	1	1765 Lake Louise Rd, Bellingham, WA	\$109,100	Drinking water pump station
Division 30 Booster Station	EF	3	1744 Lake Whatcom Blvd, Bellingham, WA	\$294,400	Drinking water pump station
Agate Heights Reservoir	EF	3	3363 Opal Terrace, Bellingham, WA	\$383,200	0.08 MG water reservoir
LWRTC Reservoir	EF	3	2145 Academy Rd, Bellingham, WA	\$544,800	0.1 MG water reservoir
Division 7 Reservoir	EF	3	3 Grand View Circle, Bellingham, WA	\$1,448,300	1.0 MG water reservoir
Division 22 Reservoir No. 1	EF	3	10 Water Tower Ct, Bellingham, WA	\$965,200	0.5 MG water reservoir
Division 22 Reservoir No. 2	EF	3	10 Water Tower Ct, Bellingham, WA	\$1,074,500	0.6 MG water reservoir
Division 30 Reservoir	EF	3	30 Loganberry Ln, Bellingham, WA	\$640,600	0.15 MG water reservoir
Geneva Reservoir	EF	3	1010 Lakeview St, Bellingham, WA	\$937,100	0.5 MG water reservoir
Afternoon Beach Lift Station	EF	3	22 Morning Beach Dr, Bellingham, WA	\$393,000	Sewer pump station with backup generator
Agate Bay Lift Station	EF	3	3187 Agate Bay Ln, Bellingham, WA	\$240,200	Sewer pump station with backup generator



**SECTION 3. JURISTITION PROFILES AND MITIGATION
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Airport Lift Station	EF	2	2316 Lake Whatcom Blvd, Bellingham, WA	\$173,900	Sewer pump station with backup generator
Austin Lift Station	EF	1	8 Acorn Pl, Bellingham, WA	\$125,200	Sewer pump station with backup generator
Beaver Lift Station	EF	3	2271 Lake Louise Rd, Bellingham, WA	\$930,600	Sewer pump station with backup generator
Boulevard Lift Station	EF	1	2586 Lake Whatcom Blvd, Bellingham, WA	\$172,600	Sewer pump station
Cable Street Lift Station	EF	3	2900 Lake Whatcom Blvd, Bellingham, WA	\$818,700	Sewer pump station with backup generator
Camp Firwood Lift Station	EF	1	1744 Lake Whatcom Blvd, Bellingham, WA	\$190,400	Sewer pump station
Dellesta Lift Station	EF	1	2127 Northshore Dr, Bellingham, WA	\$94,300	Sewer pump station
Edgewater Lift Station	EF	1	1725 Edgewater Ln, Bellingham, WA	\$85,200	Sewer pump station
Euclid Lift Station	EF	2	1602 Euclid Ave, Bellingham, WA	\$207,200	Sewer pump station
Flat Car Lift Station	EF	3	2800 Lake Louise Rd, Bellingham, WA	\$920,700	Sewer pump station with backup generator
Geneva Lift Station	EF	2	1545 Geneva St, Bellingham, WA	\$476,100	Sewer pump station with backup generator
Lakewood Lift Station	EF	1	2462 Lake Whatcom Blvd, Bellingham, WA	\$147,500	Sewer pump station
Lake Louise Lift Station	EF	2	7 Larkspur Park Dr, Bellingham, WA	\$138,600	Sewer pump station with backup generator
Lowe Lift Station	EF	1	1525 Lowe Ave, Bellingham, WA	\$98,700	Sewer pump station
Marina Lift Station	EF	2	2 Marina Circle, Bellingham, WA	\$146,800	Sewer pump station with backup generator
North Point Lift Station	EF	3	10 Clear Lake Ct, Bellingham, WA	\$531,000	Sewer pump station with backup generator



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Par Lift Station	EF	1	18 Park Ln, Bellingham, WA	\$229,100	Sewer pump station
Plum Lift Station	EF	2	15 Autumn Vista Pl, Bellingham, WA	\$164,700	Sewer pump station
Ranch House Lift Station	EF	3	10 Marigold Dr, Bellingham, WA	\$630,500	Sewer pump station with backup generator
Rocky Ridge Lift Station	EF	1	2566 Woodcliff Ln, Bellingham, WA	\$108,300	Sewer pump station
Strawberry Canyon Lift Station	EF	2	12 Strawberry Canyon Ct, Bellingham, WA	\$218,600	Sewer pump station with backup generator
Strawberry Point Lift Station	EF	1	2642 Lake Whatcom Blvd, Bellingham, WA	\$208,000	Sewer pump station
Sudden Valley Lift Station	EF	3	2018 Lake Whatcom Blvd, Bellingham, WA	\$2,651,700	Sewer pump station with backup generator and sewage detention basin
Tomb Lift Station	EF	1	16 Marina Ct, Bellingham, WA	\$219,000	Sewer pump station with backup generator

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Critical Facility Rankings for the Lake Whatcom Water & Sewer District

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Administration Building	EF	1	1	1	0	0	0	0	0	1	0.21
Post Point Wastewater Treatment Plant	EF	3	1	0	0	0	0	0	0	1	0.43
Maintenance Facility	EF	2	1	0	0	0	0	0	0	1	0.29
Sudden Valley Water Treatment Plant/Chlorine Contact Reservoir	EF	3	1	0	0	0	0	1	0	0	0.36
Sudden Valley WTP Booster Station	EF	3	1	0	0	0	0	1	0	0	0.36
Agate Heights Water Treatment Plant/Well Site	EF	3	1	1	0	0	0	0	0	1	0.64
Johnson Well Site	EF	1	1	1	0	0	0	0	0	1	0.21
Eagleridge Booster Station	EF	1	1	0	0	0	0	0	0	1	0.14
Coronado Booster Station	EF	1	1	0	0	0	0	0	0	1	0.14
Geneva Intertie	EF	3	1	0	0	0	0	0	0	1	0.43
Agate Heights Booster Station	EF	2	1	0	0	0	0	0	0	1	0.29
Beecher	EF	1	1	0	0	0	0	0	0	1	0.14



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Booster Station											
South Geneva Booster Station	EF	1	1	0	0	0	0	0	0	1	0.14
Division 30 Booster Station	EF	3	1	0	0	0	0	0	0	1	0.43
Agate Heights Reservoir	EF	3	1	0	0	0	0	0	0	0	0.21
LWRTC Reservoir	EF	3	1	0	0	0	0	0	0	1	0.43
Division 7 Reservoir	EF	3	1	0	0	0	0	0	0	1	0.43
Division 22 Reservoir No. 1	EF	3	1	0	0	0	0	0	0	1	0.43
Division 22 Reservoir No. 2	EF	3	1	0	0	0	0	0	0	1	0.43
Division 30 Reservoir	EF	3	1	0	0	0	0	0	0	1	0.43
Geneva Reservoir	EF	3	1	0	0	0	0	0	0	1	0.43
Afternoon Beach Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Agate Bay Lift Station	EF	3	1	1	1	0	0	1	0	1	1
Airport Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Austin Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14
Beaver Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Boulevard Lift Station	EF	1	1	0	0	0	0	1	0	0	0.12
Cable Street Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Camp Firwood Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14



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Dellesta Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14
Edgewater Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14
Euclid Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Flat Car Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Geneva Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Lakewood Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14
Lake Louise Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Lowe Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14
Marina Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
North Point Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Par Lift Station	EF	1	1	1	0	0	0	0	0	1	0.21
Plum Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Ranch House Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Rocky Ridge Lift Station	EF	1	1	0	0	0	0	0	0	0	0.07
Strawberry Canyon Lift Station	EF	2	1	0	0	0	0	0	0	1	0.29
Strawberry Point Lift Station	EF	1	1	0	0	0	0	1	0	0	0.12
Sudden Valley Lift Station	EF	3	1	0	0	0	0	0	0	1	0.43
Tomb Lift Station	EF	1	1	0	0	0	0	0	0	1	0.14

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

	Lake Whatcom Water & Sewer District Exposure to Natural Hazards					
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	MMI V	-	-	-	2.1%	\$0.2 ¹
	MMI VI	100%	99.9%	99.9%	97.9%	\$31 ¹
	MMI VII	-	-	-	-	-
	MMI VIII - IX	-	-	-	-	-
	TOTAL	100%	99.9%	99.9%	100%	\$31.2
	Liquefaction					
	Very Low to Low	12.4%	5.8%	8.9%	8.5%	\$2 ¹
	Low to Moderate	1%	0.5%	1%	-	-
	Moderate	-	-	-	-	-
	Moderate to High	-	-	-	2.1%	\$0.2 ¹
	High	-	-	-	-	-
	TOTAL	13.5%	6.3%	9.9%	10.6%	\$2.2
	Landslide					
	Landslide Low	0.6%	0.1%	0.04%	-	-
	Landslide Moderate	0.6%	0.1%	0.1%	-	-
	Landslide High	4.9%	0.3%	0.7%	-	-
	Fan Low	0.1%	0.2%	0.2%	-	-
	Fan Moderate	0.5%	0.3%	0.3%	-	-



	<i>Fan High</i>	4.4%	4%	4.8%	2.1%	\$0.2 ¹
	<i>Mine Hazard</i>	0.8%	0.02%	0.03%	-	-
	TOTAL	11.9%	5.02%	6.17%	2.1%	\$0.2
	Volcanic Eruption					
	<i>Case 1 Debris Flows</i>	-	-	-	-	-
	<i>Case 2 Debris Flows</i>	-	-	-	-	-
	<i>Case M Flows</i>	-	-	-	-	-
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	-	-
	<i>Lateral Blast Hazard Zone</i>	-	-	-	-	-
	TOTAL	-	-	-	-	-
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	-	-	-	2.1%	\$0.2 ¹
	<i>Moderate to High Inundation Potential</i>	-	-	-	-	-
	<i>High Inundation Potential</i>	-	-	-	2.1%	\$6 ¹
	TOTAL	-	-	-	4.2%	\$6.2
Hydrological	Flooding					
	<i>100-year Flood</i>	31.4%	5.1%	6.4%	12.8%	\$5 ¹
	<i>500-year Flood</i>	2.7%	3.2%	4.3%	4.3%	\$0.4 ¹
	<i>Floodway</i>	-	-	-	-	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-
	TOTAL	34.1%	8.3%	10.7%	17.1%	\$5.4
Mete	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	-	-	0.2%	-	-



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	<i>Interface Medium-High Structure Density</i>	5.5%	32.2%	25.1%	25.5%	\$12 ¹
	<i>Intermix Very Low-Low Structure Density</i>	16.9%	5.8%	3.7%	8.5%	\$2 ¹
	<i>Intermix Medium-High Structure Density</i>	21.9%	48.4%	65.5%	55.3%	\$12 ¹
	TOTAL	44.3%	86.4%	94.5%	89.3%	\$26

¹ Shows the assessed dollar value provided by the community in their critical facilities list. Does not include the appraised total value.



Status of Lake Whatcom Water & Sewer District’s 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

General: All Hazards

G-a. Emergency Plan Updates – The Lake Whatcom Water and Sewer District updated a prior (2008) revision to its Emergency Management Plan in 2019. A subsequent revision that meets the requirements of the federal America’s Water Infrastructure Act of 2018 (AWIA) is underway with anticipated adoption by the Board of Commissioners by the December 31, 2021 deadline.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local
Current Status	Ongoing

G-b. Provide for an increased level of protection for public infrastructure – As owner/operator of water and sewer systems providing essential public services, the Lake Whatcom Water and Sewer District annually allocates funding toward system reinvestment projects that enhance system resiliency and/or redundancy in preparation for unforeseen events. Improvements completed since issuance of the 2016 Plan include: construction of new Division 22 reservoir meeting current seismic standards and outfitted with the ShakeAlert earthquake early detection system, installing an emergency water intertie with the City of Bellingham’s system in Geneva, and installation of standby generators at three sewer lift stations.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local sources, and state and federal grants
Current Status	Perpetual



Education and Outreach

EO-a. Utility bill inserts – On a semi-annual basis, the District includes educational materials related to emergency preparedness and winter-weather preparedness within bi-monthly utility bills.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local
Current Status	Annual

Drought/heat wave

D-a. Monitor water supply – As required under its water system operating permits, the Lake Whatcom Water and Sewer District daily records volumes of water treated, distributed, consumed and lost within each of its three Group A water systems.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local
Current Status	Perpetual

D-b. Educate residents on water saving techniques – The District maintains water conservation tips on its website, and regularly provides water conservation information via posts to its social media account, messages on the District office reader board, and via utility bill inserts. The District is an active member of the Whatcom Water Alliance, whose mission is to promote standardized water conservation messaging countywide.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local
Current Status	Perpetual

Earthquake

EQ-a. Seismic retrofit of critical infrastructure – seismic retrofit of the District’s Maintenance Office.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local sources
Current Status	Complete

EQ-b. Protect critical facilities and infrastructure – complete minor improvements to various



facilities and infrastructure.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local sources, other
Current Status	Complete

EQ-c. Seismic resistant water reservoirs – Constructed 0.6 MG water reservoir in 2018 (Div. 22 No. 2) and planning replacement of existing Division 7 water reservoir with two reservoirs that meet current seismic standards.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local and Federal, including FEMA
Current Status	Ongoing

EQ-d. Seismic vulnerability assessment – In 2016, the District hired a consultant to assess the seismic vulnerability of all of its water reservoirs and develop a prioritization plan for retrofit/replacement.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local
Current Status	Complete

EQ-e. Seismic resilient reservoir system – Constructed a second reservoir adjacent to original Division 22 water reservoir in 2018 (including ShakeAlert system), and plan to replace existing single Division 7 reservoir with two reservoirs that will have ShakeAlert-controlled valving to shut it off during high seismic shaking (to preserve water from loss due to anticipated main breaks).

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local and Federal, including FEMA
Current Status	Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

No actions ongoing, discontinued, or completed for this hazard.

Landslide/erosion



ER-a. Vulnerability assessment – Mapped and assessed the vulnerability of system elements to landslide/erosion events.

Lead Agency	Lake Whatcom Water and Sewer District
Funding Source	Local sources
Current Status	Ongoing

Landslide Subsidence

No actions ongoing, discontinued, or completed for this hazard.

Lightening

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

No actions ongoing, discontinued, or completed for this hazard.

Tornadoes

No actions ongoing, discontinued, or completed for this hazard

Tsunami

No actions ongoing, discontinued, or completed for this hazard.

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes

No actions ongoing, discontinued, or completed for this hazard.

Multiple Hazards

No actions ongoing, discontinued, or completed for this hazard.



Lake Whatcom Water & Sewer District 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Lake Whatcom Water & Sewer District-Specific Hazard Mitigation Goals

Lake Whatcom Water and Sewer District adds to these county-wide goals, the following community-specific mitigation planning goals:

- LWWSD Goal A:** Ensure continuity of water and sewer services
- LWWSD Goal B:** Harden infrastructure to mitigate impact from seismic hazards

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Lake Whatcom Water and Sewer District considered mitigation options related to earthquake, liquefaction, landslide, volcanic, riverine flooding, and wildfire hazards, especially those related to earthquakes because this hazard has the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for the District. Some options have already been implemented or are ongoing in the District, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization



The mitigation actions in this section are new actions that the Lake Whatcom Water and Sewer District has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. The District is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Priority:	H (High); M (Medium); L (Low)
Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing
Funding Source:	Local; State; FEMA; Private; Other
Estimated Cost:	Actual; Estimated



Lake Whatcom Water & Sewer District Identified Mitigation Actions 2021-2025

Lake Whatcom Water & Sewer District IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>G-a. Emergency Plan Updates</i>	1	Lake Whatcom Water and Sewer District	M	O	Local	
	<i>G-b. Provide for an increased level of protection for public infrastructure</i>	1	Lake Whatcom Water and Sewer District	M	O	Local, State, Federal	
Education and Outreach	<i>EO-a Ongoing -- Utility bill inserts</i>	1, 2	Lake Whatcom Water and Sewer District	M	O	Local	
Hazard Specific	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee Failures (See: Flooding)	No applicable action items	-	-	-	-	-	-
Droughts/Heat	<i>D-a Ongoing -- Monitor water supply</i>	1	Lake Whatcom Water and Sewer	M	O	Local	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



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Lake Whatcom Water & Sewer District IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Waves			District				
	<i>D-b Ongoing -- Educate residents on water saving techniques</i>	2	LWWSD	M	O	Local	
	D-1 Require water conservation during drought conditions	3, A	LWWSD	L	O	Local	\$10,000
	D-2 Raw water bypass for low reservoir level	1, A	LWWSD	L	L	Local, State, FEMA, Other	\$200,000
Earthquakes	<i>EQ-c Ongoing -- Seismic resistant water reservoirs</i>	1	LWWSD	L	O	Local, Federal, FEMA	
	<i>EQ-e Ongoing -- Seismic resilient reservoir system</i>	1	LWWSD	L	O	Local, Federal, FEMA	
	EQ-1 Seismic retrofit of existing water reservoirs	1, 5, A, B	LWWSD	H	O	Local, State, FEMA, Other	\$8,000,000
	EQ-2 Replace water mains with seismically resistant piping	1, 5, A, B	LWWSD	L	L	Local, State, FEMA, Other	\$50,000,000
	EQ-3 Seismic retrofit of existing pumping stations; install ShakeAlert system controls	1, 5, A, B	LWWSD	H	S	Local, State, FEMA, Other	\$1,500,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Lake Whatcom Water & Sewer District IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	EQ-4 Anchorage of critical facilities: pumps, electronics, communications	1, 5, A, B	LWWSD	H	M	Local, State, FEMA, Other	\$3,000,000
Extreme Temperatures	No applicable action items	-	-	-	-	-	-
Flooding	F-1 Protect Infrastructure Harden infrastructure at bridge and dam crossings	1, 5, A	LWWSD	L	L	Local, State, FEMA, Other	\$1,000,000
	F-2 Protect Critical Facilities Dry proof pumping stations	1, 5, A	LWWSD	L	L	State, FEMA	\$150,000
Landslide/Erosion	ER-a Ongoing -- Vulnerability assessment	1	LWWSD	L	O	Local	
	ER-1 Protect Division 30 Reservoir	1, 5, A, B	LWWSD	L	L	Local, State, FEMA, Other	\$1,000,000
Land Subsidence	LS-1 Protect Critical Facilities	1, 5, A	LWWSD	L	L	Local, State, FEMA, Other	\$2,000,000
Lightning	No applicable action items	-	-	-	-	-	-
Severe Storms	SS-1 Install backup generators at	1, 5, A	LWWSD	H	O	Local, State,	\$2,000,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
---	---	--	---



Lake Whatcom Water & Sewer District IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	facilities					FEMA, Other	
Severe Wind	No applicable action items	-	-	-	-	-	-
Tornadoes	No applicable action items	-	-	-	-	-	-
Tsunami	No applicable action items	-	-	-	-	-	-
Wildfires	WF-1 Firewise critical facilities	1, 5, A	LWWSD	M	M	Local, State, FEMA, Other	\$1,000,000
Winter Storms/ Freezes (Severe Winter Weather)	WS-1 Install backup generators at facilities	1, 5, A	LWWSD	H	O	Local, State, FEMA, Other	\$2,000,000
Multiple Hazards	No applicable action items	-	-	-	-	-	-
Advanced Mitigation Projects (Dream List)	No applicable action items	-	-	-	-	-	-

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Lake Whatcom Water & Sewer District Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT

Lake Whatcom Water and Sewer District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
GENERAL: ALL HAZARDS						
G-a. Update District-specific emergency response plan	B					Plan updated in 2019 and is on track for update in compliance with AWIA-requirements in 2021.
G-b. Provide for an increased level of protection for public infrastructure	B					Six-year water/sewer capital improvement plans includes projects each year assoc. with this task.
Add Additional Actions as Needed						
EDUCATION AND OUTREACH						
EO-a. Utility bill inserts	B					Completed annually.
Add Additional Actions as Needed						
DAM/LEEVE FAILURES						
none	-	-	-	-	-	
DROUGHTS/HEAT WAVES						
D-a. Monitor water supply	B					Conduct daily.
D-b. Educate residents on water saving techniques	B					Conduct via utility bill fact sheets, social media posts, and Lakeway Drive reader board messages.
D-1 Require water conservation during drought conditions	B					To be implemented, if necessary.
D-2 Install raw water bypass for low lake level conditions	D					Improvement planned beyond current planning horizon.
Add Additional Actions as Needed						
EARTHQUAKES						
EQ-c. Seismic resistant water reservoirs	B					Replacement of existing Div. 7 reservoir planned for 2023.
EQ-e. Seismic resilient reservoir system	B					Installation of ShakeAlert controls on water system components planned for



**SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT**

Lake Whatcom Water and Sewer District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
						2023.
EQ-1 Seismic retrofit of existing water reservoirs	D					Improvements dependent upon external funding.
EQ-2 Replace water mains with seismically resistant piping	D					Improvements dependent upon external funding.
EQ-3 Seismic retrofit of existing pumping stations; install ShakeAlert system controls	D					Improvements dependent upon external funding.
EQ-4 Anchorage of critical facilities: pumps, electronics, communications	D					Improvements dependent upon external funding.
Add Additional Actions as Needed						
FLOODING						
F-1 Protect infrastructure (harden infrastructure at bridge and dam crossings)	D					Improvements dependent upon external funding.
F-2 Protect critical facilities (dry proof pumping stations)	D					Improvements dependent upon external funding.
Add Additional Actions as Needed						
LANDSLIDES/EROSION						
ER-1 Protect Division 30 reservoir	D					Improvements dependent upon external funding.
Add Additional Actions as Needed						
LAND SUBSIDENCE						
LS-1 Protect Critical Facilities	D	-	-	-	-	Improvements dependent upon external funding.
Add Additional Actions as Needed						



**SECTION 3. JURISTITION PROFILES AND MITIGATION
STRATEGIES –LAKE WHATCOM WATER & SEWER DISTRICT**

Lake Whatcom Water and Sewer District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
TORNADOES						
none	-	-	-	-	-	
TSUNAMI						
none	-	-	-	-	-	
WILDFIRES						
WF-1 Firewise critical facilities	D					Improvements dependent upon external funding.
<i>Add Additional Actions as Needed</i>						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WS-1 Power generation at critical facilities	B					Completed per current capital improvement plan.
<i>Add Additional Actions as Needed</i>						
EXTREME TEMPERATURES						
none	-	-	-	-	-	
LIGHTNING						
none	-	-	-	-	-	
SEVERE WIND						
none	-	-	-	-	-	
MULTIPLE HAZARDS						
none	-	-	-	-	-	



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CITY OF LYNDEN

Contact Information

Mark Billmire
Fire Chief
215 4th Street, Lynden, WA 98264
(360) 255-7913

Approving Authority

Mayor Scott Korthuis & City Council Members
300 Fourth Street Lynden, WA 98264
(360) 354-5026

Planning Process

The City of Lynden process for reviewing, updating, and adopting the 2021 Whatcom County Natural Hazard Mitigation Plan (NHMP) included a review by multiple city departments and formal adoption by the City Council. The staff attended regular, bi-weekly Whatcom County plan update meetings through February through May of 2021. Staff met with Dr. Rebekah Paci-Green in March to review the 2016 plan and understand new elements of 2021 community profile template. In February through June 2021, the Fire Chief attended coordination meetings hosted by the Whatcom County Sheriff's Office Division of Emergency Management (DEM) and received initial guidance from DEM. The City of Lynden Fire Chief and City Administrator reviewed the previous plan, confirmed the critical facilities list and that the existing mitigation strategies were appropriate, and then met with the Mayor, Public Works Director, Chief of Police, and other city departments to solicit input for additional revisions. They worked with Western Washington University to further revise the plan, based upon new elements of the 2021 plan.

The final draft revisions to the NHMP addressing the City of Lynden were submitted to DEM in May of 2021 to be incorporated into the county-wide plan. The Lynden City Council, in partnership with the county, held two duly advertised, virtual public meetings about the planning process on March 23, 2021 and April 13, 2021 and one public hearing on May 5, 2021 to review the draft NHMP dated June 1, 2021 and expects to formally adopted the Plan in the summer of 2021.



Key Contributor List

- Mike Martin, Lynden City Administrator
- Sarah Silvas, Lynden Fire Department

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the best available science and technology currently available. All City departments will utilize this information. This information and related data on natural hazards potentially impacting Lynden will be used as a tool when the City updates other plans and programs, such as the following:

Comprehensive Plan required by the Growth Management Act (GMA);

- Critical Areas Ordinance;
- Capital facilities planning;
- Water Resource Inventory Area planning
- Historic Preservation Ordinance No 1492
- Shoreline Management Plan (updated 2019)
- Pepin Creek Sub-Area Master Plan

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for Lynden

This plan will be updated periodically with public information and education programs deployed by the Fire, Police and Public Works departments, along with special, one-time events such as booths at public events.



Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	Yes, ongoing	The Mt. Baker Chapter of the Red Cross is active in promoting emergency preparedness. Through the WCDEM, Lynden residents participate in CERT training.
Ongoing public education or information programs	Yes, ongoing	Police and Fire departments routinely conduct public education for students in all age levels.
School-related programs for natural hazard safety	Yes	The Lynden School Board policy 3432 mandates fire, earthquake, lockdown, evacuation, and shelter-in-place drills. Ongoing programs with Police and Fire Departments.
StormReady certification	Yes, 2003	Whatcom County is one of 14 counties in Washington State to be certified StormReady. StormReady uses a grassroots approach to help communities develop plans to handle all types of extreme weather.
Firewise Community certification	No	



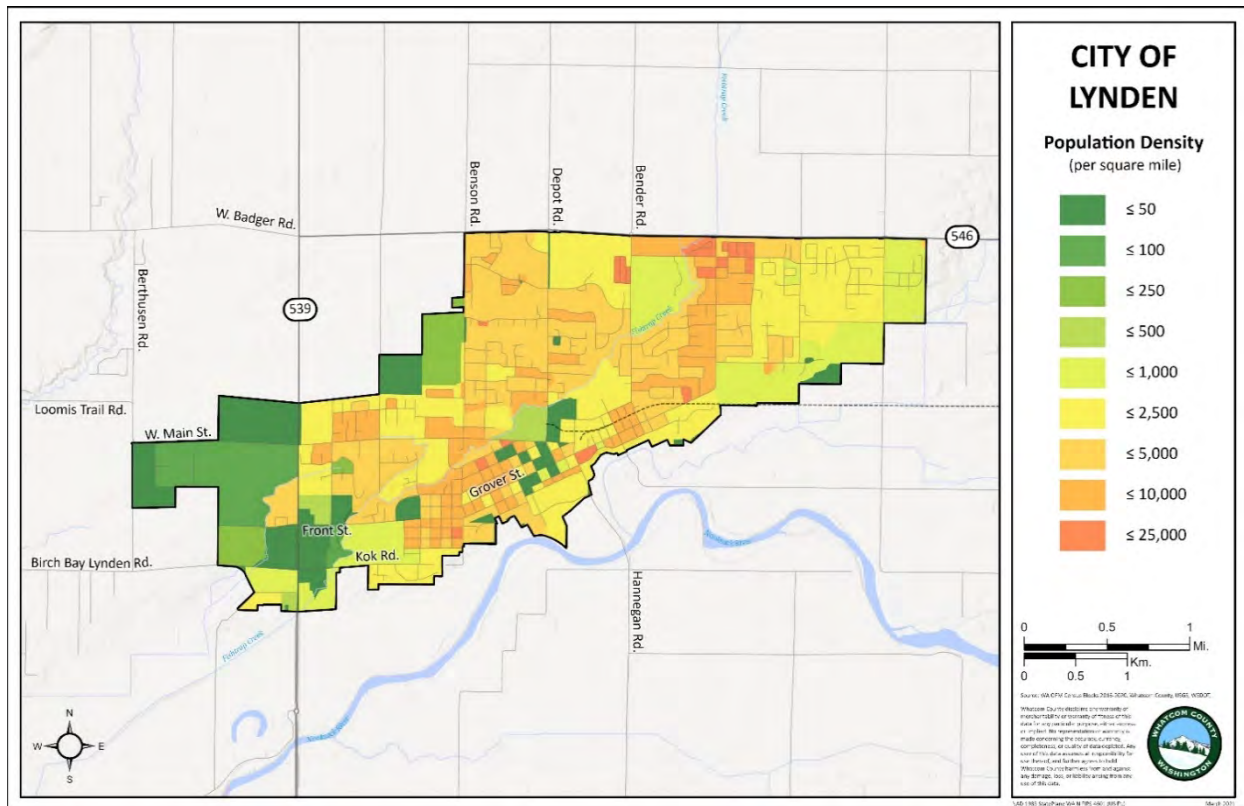
Public-Private Partnership initiatives addressing disaster-related issues	Yes, ongoing	City partners with the Lynden Chamber of Commerce to use its website for emergency notifications. Also, radio station KGMI 790 is a designated emergency communications asset that we use for the same purpose.
Other	No	



Overview of Lynden, Hazards, and Assets

Geography of Lynden

Lynden Population	14,800 (Apr 1, 2021 estimate)
Total area	6.5 mi (within city limits)

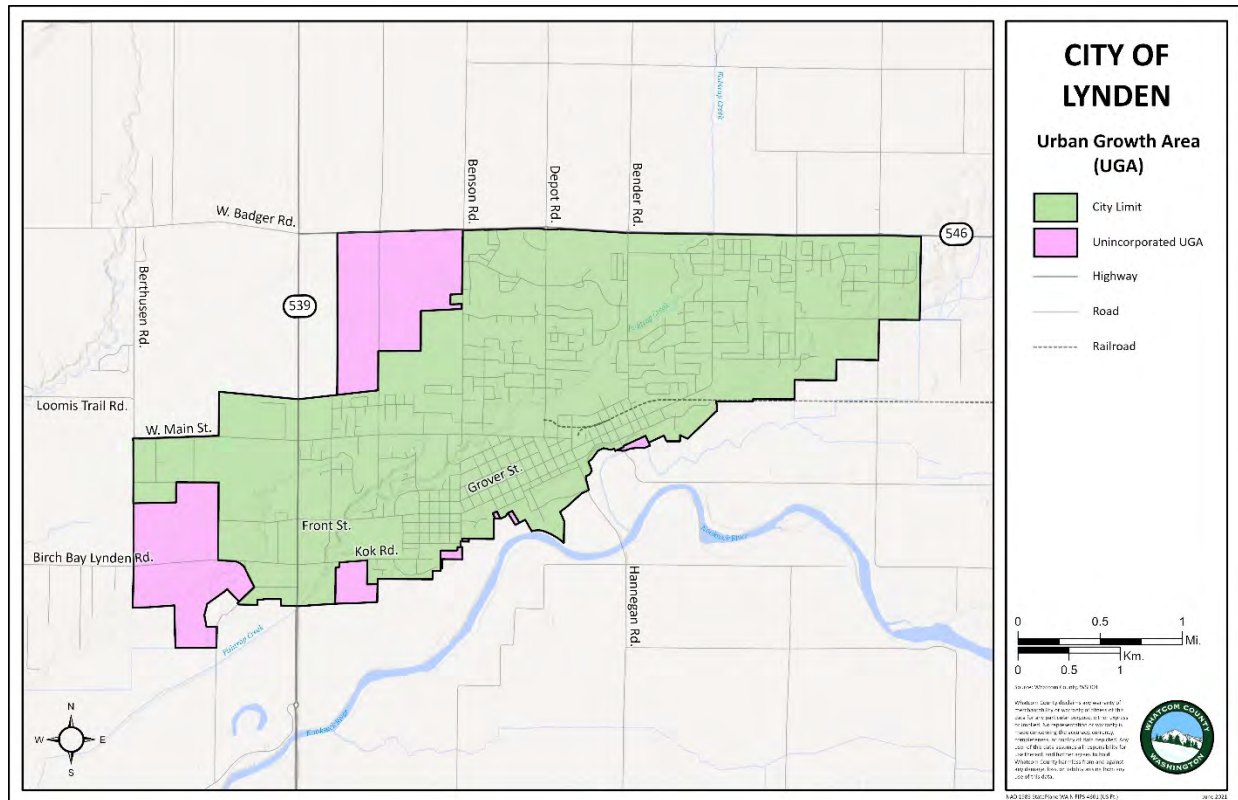


Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



Growth Trends

This map displays the UGA for Lynden, as designated by the Whatcom County Comprehensive Plan.





Presence of Hazards and their Impacts in Lynden

Flooding, freezing and occasional high-wind events are the most consistent natural hazards affecting Lynden. Flooding occurs in several specific places. Winter flood waters in mainstem of the Nooksack River routinely breach dikes and levees, posing a particular threat to north-south roads, including State Highway 539 and the Hanigan Road – both critical travel assets to the City of Lynden. Flooding also occurs in the Pepin Creek sub-area. This is part of a drainage basin located mainly in Canada that empties into Lynden. Finally, severe, high winds from the Frazier River Valley sweep into North Whatcom County, including Lynden each winter, downing trees, transmission wires and causing other damage.

Since the adoption of the 2016 NHMP Lynden has grown by roughly 2000 people. There has been no change in hazardous areas. Steps are being taken to ensure less structures are at risk of flooding.

The City works closely with the Whatcom County Flood Control districts and other agencies to ensure structures intended to keep the Nooksack River in its channel are adequately maintained and repaired. Regarding the Pepin Creek drainage basin; the City is currently buying property, and designing infrastructure that will greatly reduce flooding in areas that are most at risk from this hazard. It has also rezoned property in this area to mitigate the effects of flooding on private property. Finally, the City consistently updates and improves its response to high wind, freezing and snow events. The manpower, equipment and resources needed to address these hazards is a priority reflected in the City's annual budget.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Lynden's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	100%	High	Strong shaking (MMI value 6) expected in Lynden during a Boulder Creek earthquake or Cascadia event. Such shaking is expected to cause low to moderate damage to infrastructure. Wastewater Treatment Plant, which is expected to experience very strong shaking (MMI value 7), may experience moderate damage. High impact to the North and South means that extensive and prolonged disruption of transportation and goods may occur.
	Liquefaction	98.9%	Mod	Seismically-sensitive soils present near the Nooksack River, a small portion of the downtown area, and the waste water treatment plant. Could also affect transportation route (Guide Meridian, Hampton Rd, Hannegan Rd) into and out of the community.
	Landslide	0.2%	None	NA
	Volcano	2.4%	Low	The southern portion of the city is at risk of a Mount Baker lahar. This would impact the Wastewater Treatment Plant.
	Tsunami	0%	Low	Portions of the City are exposed to the Nooksack River. During the raining season this stretch of the river could be prone to tsunami inundation, specifically the area around the Wastewater Treatment Plant.
	Mine Hazards	0%	None	NA
Hydro-logical	Flooding	4.3%	Low	Lynden is located above the floodplain. New construction has currently encroached on the floodplain. Fishtrap Creek, which bisects



				the City, is subject to seasonal flooding, which could impact sanitary services at the Wastewater Treatment Plant, as well as transportation at crossing.
Meteorological	Wildfire	20.9%	Low	The Eastern portion of Lynden, called the Northwood area, is designated a Wildland Urban Interface area with moderate wildfire potential. However, the area has rapidly urbanized with new developments and is surrounded by open farmland. Forest cover is now minimal. It is unlikely to experience wildfire that could severely threaten these neighborhoods.

Severity Scale: **None** = no impact to community function

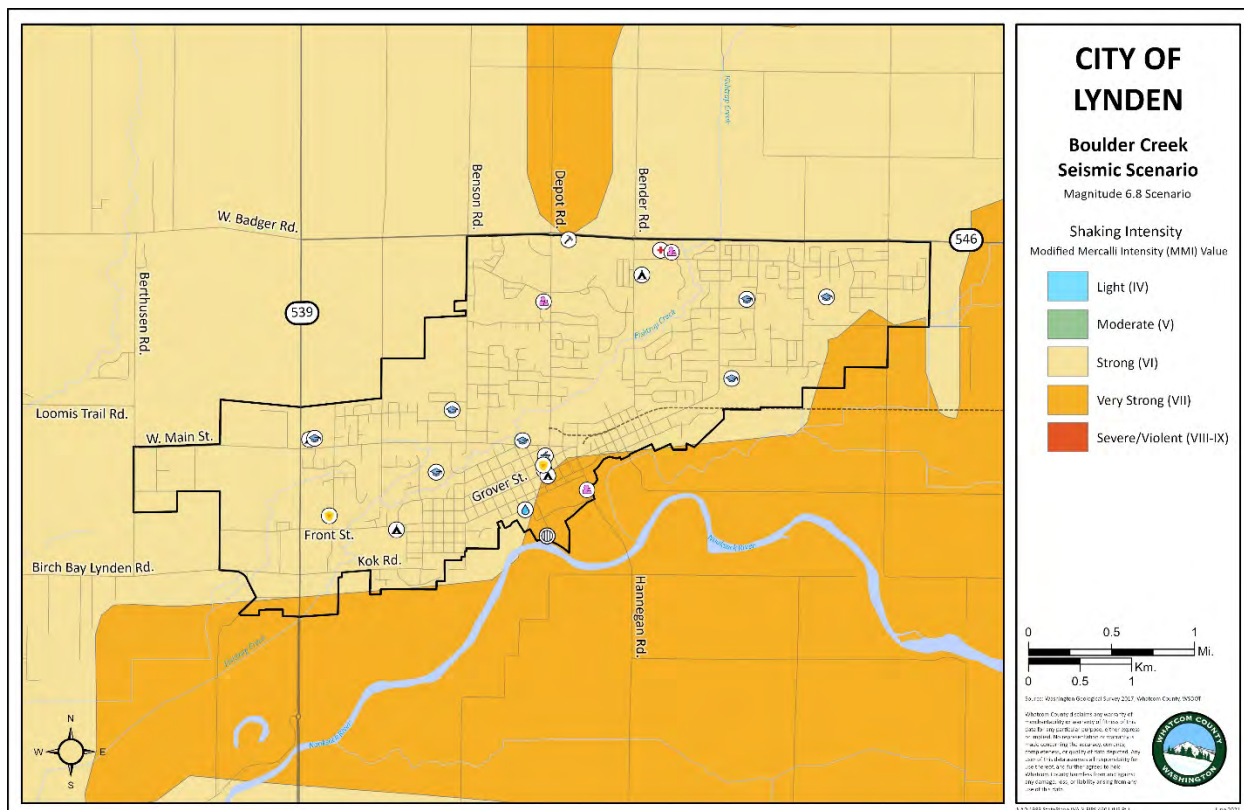
Low = minor degradation of community functions, not widespread

Moderate = moderate degradation over multiple weeks or widespread

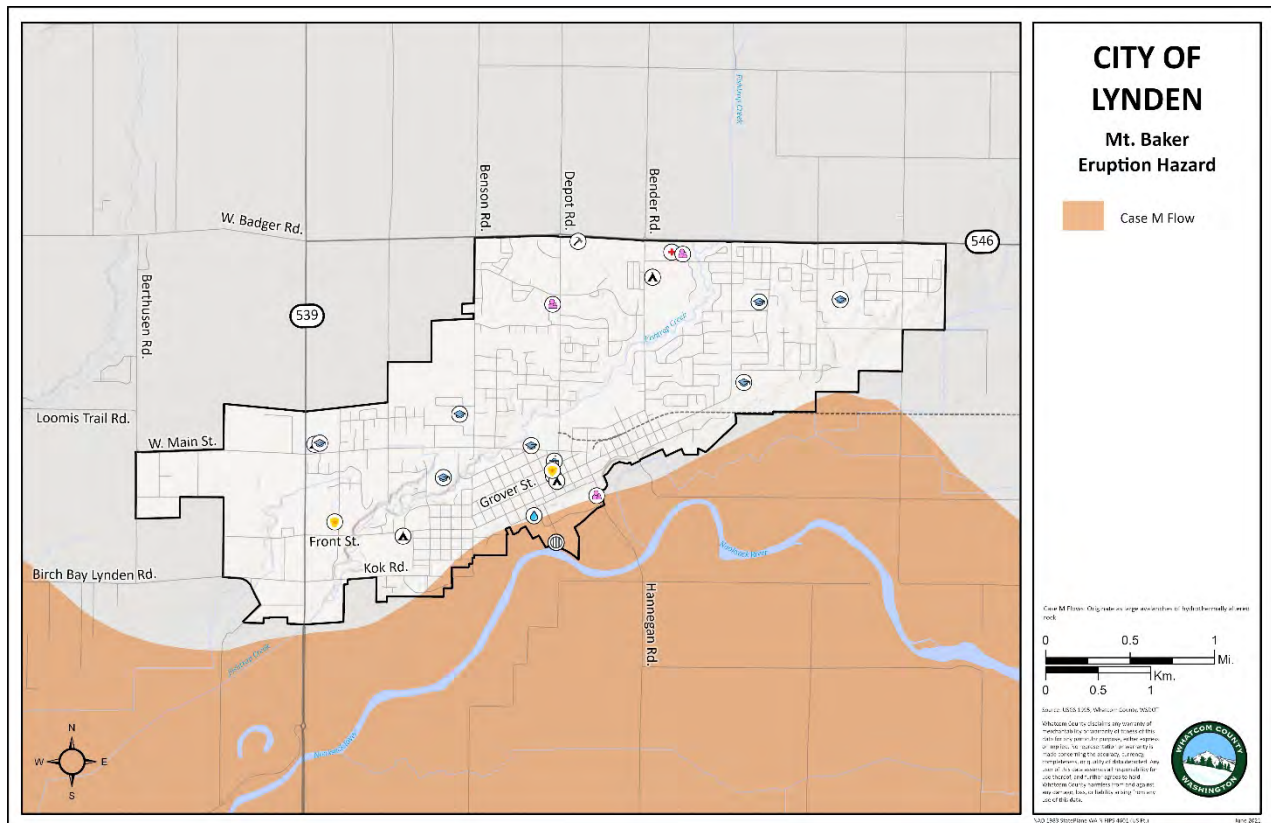
High = degradation or loss over many weeks, widespread

Natural Hazard Maps

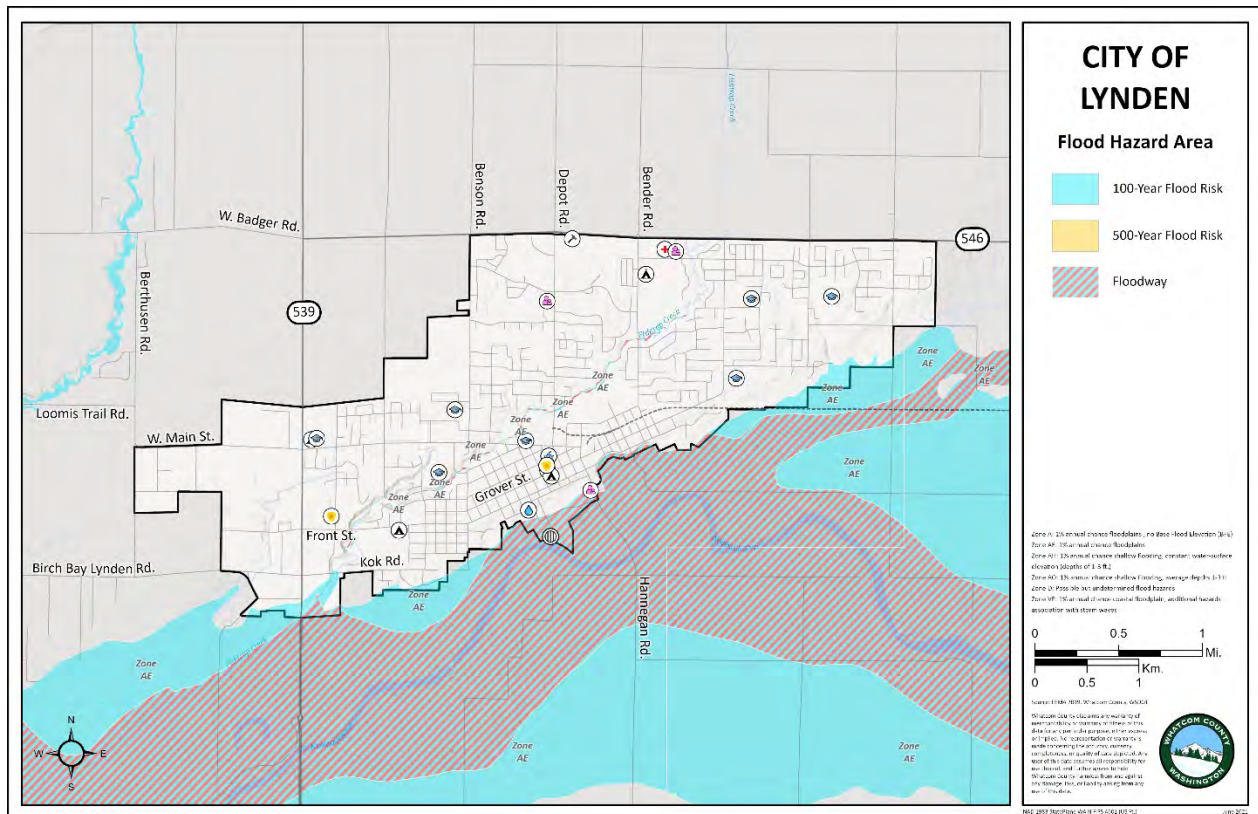
The following figures depict the natural hazards present within the jurisdiction.



Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Lynden Critical Facility List

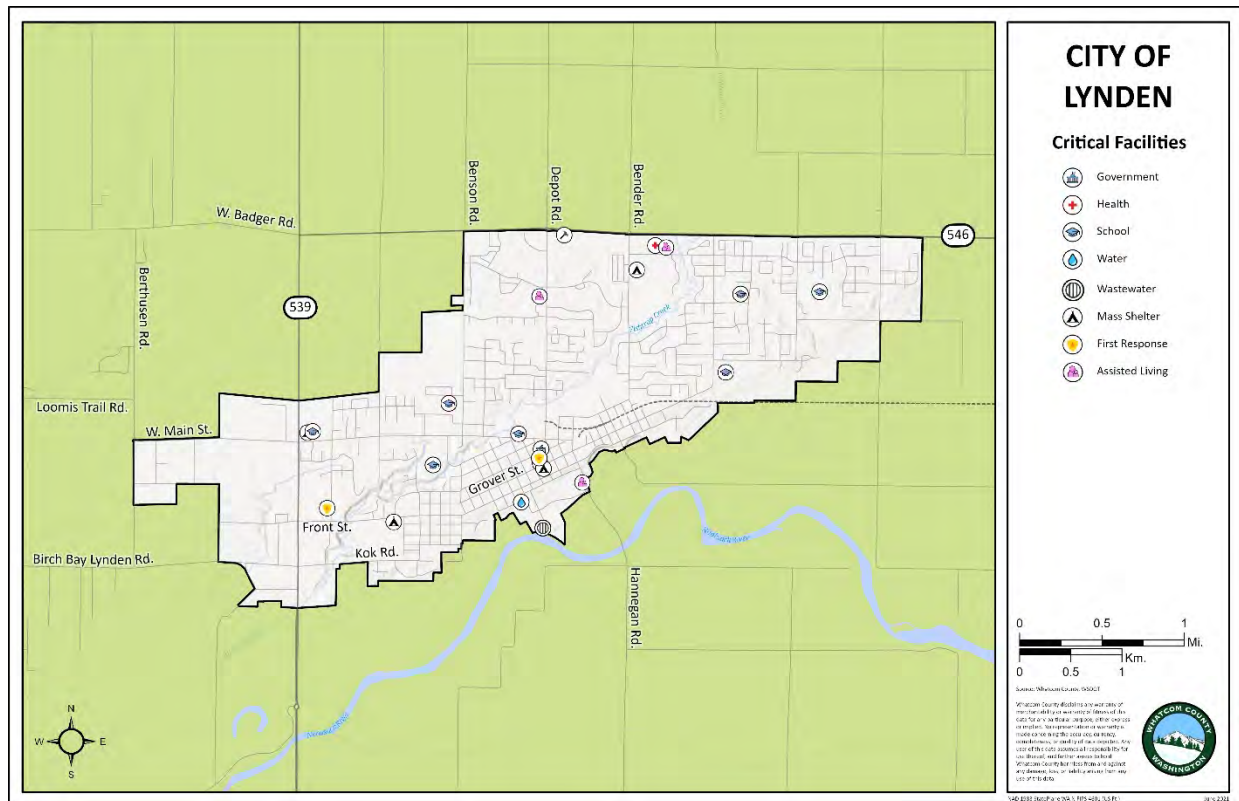
Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Christian Health Care Center	EF: Assisted Living	2	855 Aaron Drive, Lynden WA 98264	\$17 million	24/7 care for elderly, fragile population who are physically or mentally compromised. Large Elder Care, including skilled nursing.
Lynden City Hall	EF: Government	2	300 Fourth Street, Lynden WA 98264	\$12 million	Center for most City functions, including Public Works. EOC located here. City “headquarters.”
Lynden City Hall Annex	EF: Government	1	205 Fourth Street, Lynden WA 98264	\$3.5 million	Usually empty. Not a high risk. City Council and Municipal Court Chambers.
Lynden Community Center	EF: Assisted Living	1	401 Grover Street, Lynden WA 98264	\$4 million	Seniors use this for social gatherings, meals, and other services. Has kitchen. Senior Gathering place.
Lynden Fire Department	EF: Fire Station	2	215 Fourth Street, Lynden WA 98264	\$9 million	Includes all personnel and equipment for fire response. City’s only Fire Station.
Lynden Manor	EF: Assisted Living	2	905 Aaron Drive, Lynden WA 98264	\$20 million	24/7 care for elderly, fragile population who are physically or mentally compromised. Elder Care, including skilled nursing.
Lynden Police Department	EF: Law Enforcement	2	203 – 19th Street, Lynden WA 98264	\$8.5 million	Includes all personal and equipment for police response. City’s only Police Station.
Meadow Greens	EF: Assisted Living	2	301 W. Homestead Blvd. , Lynden WA 98264	\$20 million	24/7 care for elderly, fragile population who are physically or mentally compromised. Elder Care, including skilled nursing



Riverhouse Retirement	EF: Assisted Living	1	100 Riverview Rd. , Lynden WA 98264	\$12 million	Aging population but robust enough to live alone. Retirement Community.
Northwest Washington Fair	EF: Emergency Services	1	1775 Front Street, Lynden WA 98264	\$25 million	Large facility with capacity for staging and sheltering. Fairgrounds.
Schools – District 504	EF: Evacuation Center	3	7 Schools Total, Lynden WA 98264	\$200 million	2,000 children attend. Facilities have capacity for sheltering. Grades K through 12.
Sonlight Church	EF: Evacuation Center	1	8800 Bender Road, Lynden WA 98264	\$6 million	Large congregation. Used as latchkey facility for school kids. Large Church.
Waste Water Treatment Plant	LUS: Sewer	3	800 S. 6th Street, Lynden WA 98264	\$22 million	All City sewage treated here. Has outfall to Nooksack River. Tertiary sewage treatment.
Water Treatment Plant	LUS: Water	3	525 Judson Street, Lynden WA 98264	\$32 million	Water source for entire City and its residents. Produces City water.
City Bible Church	EF: Evacuation Center	1	1986 Main Street, Lynden WA 98264	\$11 million	Large congregation, transitioning to sports facility. Also “socializing” facility for homeschoolers. Large Church and Gym.
Public Works Street Shop	EF: Snow/Ice removal, various	2	745 Badger Road, Lynden, WA	\$3 million	This facility houses the City’s men and equipment that respond to all natural disasters (flood, snow, ice road washouts etc.). Shop and storage on 5 acres.

Facility Type: **EF** = Essential Facility; **HMF** = Hazardous Materials Facility; **HPL** = High Potential Loss; **LUS** = Lifeline Utility System

Significance to community function: **1**=Moderate; **2**= High; **3** =Very High



Map of critical facilities identified by the City of Lynden. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the Lynden

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Christian Health Care Center	Assisted Living	2	1	1	0	0	0	0	0	0	0.26
Lynden City Hall	Government	2	1	1	0	0	0	0	0	0	0.26
Lynden City Hall Annex	Government	1	1	1	0	0	0	0	0	0	0.14
Lynden Community Center	Assisted Living	1	1	1	0	0	0	0	0	0	0.14
Lynden Fire Department	Fire Station	2	1	1	0	0	0	0	0	0	0.29
Lynden Manor	Assisted Living	2	1	1	0	0	0	0	0	0	0.29
Lynden Police Department	Law Enforcement	2	1	1	0	0	0	0	0	0	0.29
Meadow Greens	Assisted Living	2	1	1	0	0	0	0	0	0	0.29
Riverhouse Retirement	Assisted Living	1	1	1	0	0	0	1	0	0	0.19
Northwest Washington Fair	Emergency Services	1	1	1	0	0	0	0	0	0	0.14
Schools – District 504	Evacuation Center	3	1	1	0	0	0	0	0	1	0.64
Sonlight Church	Evacuation Center	1	1	1	0	0	0	0	0	0	0.14
Waste Water Treatment Plant	Utility: Sewer	3	1	0	0	0	1	1	0	1	1



Water Treatment Plant	Utility: Water	3	1	1	0	0	0	0	0	0	0.42
City Bible Church	Evacuation Center	1	1	1	0	0	0	0	0	0	0.14
Public Works Street Shop	EF: Snow/Ice removal, various	2	1	1	0	0	0	0	0	0	0.28

Notes: **EQ** = Earthquake; **LQ** =Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

City of Lynden Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	MMI V	-	-	-	-	-
	MMI VI	93.9%	95.8%	96.5%	86.4%	\$145 ²
	MMI VII	6.1%	4.2%	3.5%	13.6%	\$38 ²
	MMI VIII - IX	-	-	-	-	-
	TOTAL	100%	100%	100%	100%	\$183
	Liquefaction					
	Very Low to Low	98.5%	99.1%	99.8%	95.5%	\$197 ¹
	Low to Moderate	-	-	-	-	-
	Moderate	-	0.2%	-	-	-
	Moderate to High	0.4%	-	0.1%	-	-
	High	-	-	-	-	-
	TOTAL	98.9%	99.3%	99.9%	95.5%	\$197
	Landslide					
	Landslide Low	-	-	-	-	-
	Landslide Moderate	-	-	-	-	-
	Landslide High	-	-	-	-	-
	Fan Low	0.2%	0.02%	0.1%	-	-
	Fan Moderate	-	-	-	-	-
	Fan High	-	-	-	-	-



	Mine Hazard	-	-	-	-	-
	TOTAL	0.2%	0.02%	0.1%	-	-
	Volcanic Eruption					
	Case 1 Debris Flows	-	-	-	-	-
	Case 2 Debris Flows	-	-	-	-	-
	Case M Flows	2.4%	2.4%	1.9%	4.5%	\$22 ²
	Pyroclastic Flows, Lava Flows, and Ballistic Debris	-	-	-	-	-
	Lateral Blast Hazard Zone	-	-	-	-	-
	TOTAL	2.4%	2.4%	1.9%	4.5%	\$22
	Tsunami, Inundation Zone					
	Low to Moderate Inundation Potential	-	-	-	-	-
	Moderate to High Inundation Potential	-	-	-	-	-
	High Inundation Potential	-	-	-	-	-
	TOTAL	-	-	-	-	-
Hydrological	Flooding					
	100-year Flood	1.9%	0.7%	0.5%	-	-
	500-year Flood	0.1%	0.1%	-	-	-
	Floodway	2.3%	2.1%	0.5%	9.1%	\$34 ²
	Undetermined (Zone D)	-	-	-	-	-
	TOTAL	4.3%	3%	1%	9.1%	\$34
Meteor	Wildfire Zones					
	Interface Very Low-Low Structure Density	0.3%	0.1%	0.02%	-	-



	<i>Interface Medium-High Structure Density</i>	14.8%	15.1%	17.8%	9.1%	\$19
	<i>Intermix Very Low-Low Structure Density</i>	0.9%	0.2%	0.5%	-	-
	<i>Intermix Medium-High Structure Density</i>	4.9%	2.8%	2.3%	9.1%	\$26 ¹
	<i>TOTAL</i>	20.9%	18.2%	20.62	18.2%	\$45

¹This value shows the total of 2020 Whatcom County parcel data appraised total value and community's critical facility assessed dollar value (found in the community's critical facilities list). The critical facility's assessed dollar value was used instead of the appraised total value when available.

²Shows the assessed dollar value provided by the community in their critical facilities list. Does not include the appraised total value.



Status of Lynden's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date, if applicable

General: All Hazards

G-a. Provide for an increased level of safety to the citizens of Lynden. The City regularly undertakes public works projects to prevent or mitigate the effects of natural hazards, particularly flooding, freezing and high-wind events. Particular attention paid to "sheet flooding" which can occur when flat fields freeze solid, followed by heavy rain.

Responsible Entity:	Lynden City Council
Funding Source:	Local sources, and state and federal grants
Timeline:	Current and ongoing
2016-2020 Status	On-Going

G-b. Provide for an increased level of protection for public infrastructure. The City since 2015 has spent an estimated \$600,000 developing the Pepin Creek project which will include \$103,000,000 in infrastructure projects to alleviate flooding in the north-central part of the City. This project is currently underway, with the installation of a boxed-bridge culvert under West Main Street. The project is expected to take 12-15 years, and will be funded mainly through development fees.

Responsible Entity:	Lynden City Council
Funding Source:	Local sources, and state and federal grants
Timeline:	Current and ongoing
2016-2020 Status	On-Going

G-c. Work with neighboring jurisdictions to add additional flow capacity to the Nooksack River in order to minimize catastrophic flooding losses. The City works closely with the Whatcom County flood district to anticipate and mitigate flooding from the Nooksack. The City is also working with the State Department of Ecology to monitor flows on the north, south and mainstem of the Nooksack River.

Responsible Entity:	Lynden City Council
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Funding Source:	Local sources, and state and federal grants
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Education and Outreach

EO-a. Ongoing Community-wide Education and Awareness Activities. Lynden, through the fire department and emergency management, continues to engage in a range of public awareness activities at public events, in the schools and through media channels.

Action Item	Lead Responsibility	Funding	Estimated Cost
Emergency preparedness education programs for schools.	Lynden Fire Department (LFD)	Local	10,000
Drills, exercises in homes, workplaces, classrooms, etc.	LFD	Local	5,000
Public service announcements.	LFD	Local	500
Hazard "safety fairs."	DEM / LFD	Local	1,000
Hazard conferences, seminars.	DEM / LFD	Local	1,000
Hazard awareness weeks.	DEM / LFD	Local	500
Preparedness handbooks, brochures. Distribution of severe weather guides, homeowner's retrofit guide, etc.	DEM / LFD	Local	2,000
Regular newspaper articles.	LFD	Local	200
Annual correspondence with residents reminding them of the need to be hazard prepared.	LFD	Local	200

Drought/heat wave

D-a. Monitor Water Supply. The City has increased its recognized annual water right from 1,792 acre-feet in 2015 to more than 2,000 acre-feet currently. It will increase by another 300-400 acre-feet when the Industrial Condensate Project is complete at the end of 2021. The City is also working on a Managed Aquifer Recharge (MAR) Project that has the potential of providing a surfeit of water to the City's water right. Lynden recently received a \$4.7 million grant to develop the project.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going



D-b. Require Water Conservation During Drought Conditions. The City informally discourages unnecessary summertime water use, such as pressure washing sidewalks etc. It also schedules “watering days” for all residences that have an alternating schedule.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Earthquake

EQ-a Conduct Inspections of Building Safety. The Fire Department does annual Life-Safety inspections of all business.

Responsible Entity:	Lynden Fire Department
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

EQ-b Protect Critical Facilities and Infrastructure. This is an ongoing activity that is part of the City’s regular facility maintenance cycle.

Responsible Entity:	Public Works and Lynden Fire Department
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

EQ-c Conduct Outreach to Builders, Architects, Engineers, and Inspectors. The City has a close working relationship with the Building Development Community. This relationship was strengthened during the recent COVID crisis due to the precautions that needed to be taken and monitored to build safely.

Responsible Entity:	Planning
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Extreme Temp



ET-a Assist Vulnerable Populations. Lynden has a number of assisted living care facilities. They are all equipped with generators that are tested regularly. There is a strong community-based network in all neighborhoods that check on vulnerable individuals who many need care. Likewise, there are many faith-based assets that reach out to vulnerable individuals to ensure their safety, especially in times of natural hazard events.

Responsible Entity:	Care facilities
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Flooding

F-a. Incorporate Flood Mitigation in Local Planning. Lynden, like most jurisdictions, has strict requirements intended to anticipate and mitigate local flooding events.

Responsible Entity:	Public Works/Panning
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

F-b. Limit or Restrict Development in Floodplain Areas. Lynden does not allow development in floodplains except in very rare cases. In those cases, significant mitigation is required.

Responsible Entity:	Planning
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

F-c. Improve Stormwater Management Planning. The City is continually improving its stormwater system and collects impact fees to support that activity. The City recently began physically removing snow that collects in north-south drainage ditches, improving their effectiveness.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going



F-d. Improve Stormwater Drainage System Capacity. See F-c above.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

F-e. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures.

Lynden regularly maintains and repairs its entire stormwater drainage system, including the use of vacators to extract debris washed into the system.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

F-f. Protect Infrastructure

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

F-g. Preserve Floodplains as Open Space. This is generally required by law, and Lynden complies.

Responsible Entity:	Public Works
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Landslide/erosion



No actions ongoing, discontinued, or completed for this hazard

Landslide Subsidence

No actions ongoing, discontinued, or completed for this hazard

Lightening

No actions ongoing, discontinued, or completed for this hazard

Severe Storm

No actions ongoing, discontinued, or completed for this hazard

Severe Wind

No actions ongoing, discontinued, or completed for this hazard

Tornadoes

No actions ongoing, discontinued, or completed for this hazard

Tsunami

Not Applicable

Wildfire

No actions ongoing, discontinued, or completed for this hazard

Winter storms/Freezes

WW-a Protect Power Lines. This is generally not a City function. Puget Sound Energy regularly prunes trees and vegetation to reduce the possibility of damage to power lines.

Responsible Entity:	Power Company and Public Works
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Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

Multi-Hazard

MU-a. Prevent Development in Hazard Areas. Like all Cities, Lynden is subject to state and local laws that prohibit development in hazard areas where flooding or other events that might endanger residents might occur.

Responsible Entity:	Planning
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

MU-b. Adopt and Enforce Building Codes. Lynden adopted the International Building Code, the International Residential Code and the International Fire Code in 2004, and the International Existing Building Code in 2009, among other building codes. It further adopts any future amendments to these codes, effective upon their adoption by the State Building Code Council. The Planning department and fire department support enforcement.

Responsible Entity:	Public Works and Lynden Fire Department
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going

MU-c. Monitor Mitigation Plan Implementation. Lynden does regular annual monitoring of the Mitigation Plan as required by law.

Responsible Entity:	Planning
Funding Source:	Local
Timeline:	Current and ongoing
2016-2020 Status	On-Going



Lynden 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Lynden-Specific Hazard Mitigation Goals

Lynden supports the county-wide planning goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Lynden considered mitigation options related to drought, earthquake, extreme temperature, flooding, landslides, subsidence, lightening, severe storms, severe wind, wildfires, winter storms, and actions that addressed multiple hazards or all hazards. Lynden especially considered actions related to flooding, earthquakes, severe winter storms, and drought because of the jurisdiction's high exposure to these hazards and/or their potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Lynden. Some options have already been implemented or are ongoing in Lynden, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that [Lynden](#) has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration



of which actions had the greatest potential to protect life, property and public welfare. Lynden is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Lynden Identified Mitigation Actions 2021-2025

IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>G-a. Ongoing: Provide for an increased level of safety to the citizens of Lynden.</i>	1, 5	Lynden City Council	H	O	Local sources, and state and federal grants	
	<i>G-b. Ongoing: Provide for an increased level of protection for public infrastructure.</i>	1, 5	Lynden City Council	M	O	Local sources, and state and federal grants	
	<i>G-c. Ongoing: Work with neighboring jurisdictions to add additional flow capacity to the Nooksack River in order to minimize catastrophic flooding losses.</i>	1, 3	Lynden City Council	M	O	Local sources, and state and federal grants	
Education and Outreach	<i>EO-a. Ongoing: Ongoing Community-wide Education and Awareness Activities.</i>	1, 2	Lynden Fire Department and Department of Emergency Management	L	O	Local	
Hazard Specific (Reference:	Actions communities is considering to reducing risk to natural hazards and disasters.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
<u>Whatcom County Mitigation Ideas)</u>							
Dam/Levee Failures (See: Flooding)							
Droughts/Heat Waves	D-a Ongoing: Monitor Water Supply	1,3	PW	H	O	Local	2,000
	D-b Ongoing: Require Water Conservation During Drought Conditions	1,3	PW	H	O	Local	1,000
Earthquakes	EQ-a Ongoing: Conduct Inspections of Building Safety	1	LFD	M	O	Local	10,000
	EQ-b Ongoing: Protect Critical Facilities and Infrastructure	1,5	PW / LFD	M	O	Local	2,000
	EQ-c Ongoing: Conduct Outreach to Builders, Architects, Engineers, and Inspectors	2	PW	M	O	Local	1,000
Extreme Temperatures	ET-a Ongoing: Assist Vulnerable Populations	1	LFD	H	O	Local	1,000
	F-a Ongoing: Incorporate Flood	1	PW	M	O	Local	2,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Flooding	<i>Mitigation in Local Planning</i>						
	<i>F-b Ongoing: Limit or Restrict Development in Floodplain Areas</i>	1,3	PLANNING	M	O	Local	1,000
	<i>F-c Ongoing: Improve Stormwater Management Planning</i>	1,5	PW	M	O	Local	1,000
	<i>F-d Ongoing: Improve Stormwater Drainage System Capacity</i>	1,5	PW	M	O	Local	1,000
	<i>F-e Ongoing: Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1.5	PW	M	O	Local	2,000
	<i>F-f Ongoing: Protect Infrastructure</i>	1	PW	M	O	Local	1,000
	<i>F-g Ongoing: Preserve Floodplains as Open Space</i>	3	PW	M	O	Local	500
	<i>F-h Ongoing: Increase Awareness of Flood Risk and Safety</i>	2	PW / LFD	M	O	Local	1,000
	<i>F-1 Elevate or Retrofit Structures and Utilities</i> Sewer outfall on Nooksack River in need	5	PW	H	S	Local	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priorit y	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	of retrofit.						
	F-2 Protect Wastewater Treatment Plant Construct a ring dike, flood wall, or otherwise mitigate the wastewater treatment plant against a 75-year flood event or volcanic lahars.	5	PW	L	S	Local, State, and Federal	
	F-3 Relocate Wastewater Shops and Offices The Wastewater Treatment shops and offices are located in the floodplain. These should be mitigated in place or moved out of the floodplain.	1,5	PW	L	L	Local, State, and Federal	
	F-4 Fishtrap Creek Flood Storage and Fish Enhancement Fishtrap Creek has had a significant amount of its floodwater storage capacity eliminated due to development. With very little storage capacity left, any discharges into the stream system immediately surge downstream. Increasing this storage	3	PW	M	S	Local, State, and Federal	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	capacity would mitigate to attenuate stream discharges.						
Landslide/ Erosion	No actions currently ongoing or planned						
Land Subsidence	No actions currently ongoing or planned						
Lightning	No actions currently ongoing or planned						
Severe Storms	No actions currently ongoing or planned						
Severe Wind	No actions currently ongoing or planned						
Tornadoes	No actions currently ongoing or planned						
Wildfires	No actions currently ongoing or planned						
Winter Storms/ Freezes (Severe Winter Weather)	WW-a. Ongoing: Protect Power Lines	5	POWER COMPANY / PW	H	O	Local	10,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Multi-Hazard	<i>MU-a. Ongoing: Prevent Development in Hazard Areas</i>	1	PLANNING	M	O	Local	500
	<i>MU-b. Ongoing: Adopt and Enforce Building Codes</i>	1	PW / LFD	M	O	Local	4,000
	<i>MU-c. Ongoing: Monitor Mitigation Plan Implementation</i>	1	PLANNING	M	O	Local	500
Advanced Mitigation Projects (Dream List)	Lahar Early Warning System – The US Geological Survey has designed a number of systems that automatically detect lahars as they descend neighboring valleys. These systems automatically trigger various types of early warning systems, such as sirens or telephone-based warning systems, such as the reserve 911 telephone-based warning system the city secured.	1,2	WCDEM/LFD	L	L	Local sources, and state and federal grants	
	Community Early Warning System - A community-wide warning system could be	1,2	WCDEM/LFD	L	L	Local sources, and state and federal grants	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	built to help provide broad community notice for evacuation in the event of flooding, lahars, dam failures, etc. Such an early warning system would typically be a series of sirens that could be triggered in the event the City needed to be evacuated.						
	Cell Phone-Based Early Warning System. A computerized early warning system that automatically dials each landline telephone number within a specified area, and play a recorded message when the phone is answered is currently provided to the City by the Whatcom County Sheriff's Office Division of Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally licensed COG would help to address a variety of natural and manmade problems.	1,2	WCDEM/LFD	L	L	Local sources, and state and federal grants	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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IDENTIFIED MITIGATION ACTIONS 2021-2025, LYNDEN							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Tone Radio Based Early Warning System - Tone Radios turn on when triggered by a central transmitter, and then information or instructions are announced over the radio. Such a system is currently used for various types of weather radios, for tornados and severe storms hazard areas. A similar system could be put into place for warnings of flooding, lahars, and other related natural hazards.	1,2	WCDEM/LFD	L	O	Local sources, and state and federal grants	
	Earthquake Early Warning System -Such a system could warn residence of an impending earthquake. Technology doesn't currently exist for such a system, but will likely be possible in the future.	1,2	WCDEM/LFD	L	O	Local sources, and state and federal grants	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Lynden Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Lynden						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
GENERAL: ALL HAZARDS						
<i>G-a. Ongoing: Provide for an increased level of safety to the citizens of Lynden.</i>	B					This is baked into our annual budget process.
<i>G-b. Ongoing: Provide for an increased level of protection for public infrastructure.</i>	B					As above.
<i>G-c. Ongoing: Work with neighboring jurisdictions to add additional flow capacity to the Nooksack River in order to minimize catastrophic flooding losses.</i>	B					Consistent work with Whatcom County on strategies to maintain and improve levies and diking systems.
Add New Action Items if Applicable						
EDUCATION AND OUTREACH						
<i>EO-a. Ongoing: Ongoing Community-wide Education and Awareness Activities.</i>	B					Launched “Lynden Watch” website to keep public apprised of Awareness Activities.
Add New Action Items if Applicable						
DROUGHTS/HEAT WAVES						
<i>D-a Ongoing: Monitor Water Supply</i>	B					Completing Industrial Condensate Project Q3 2021.
<i>D-b Ongoing: Require Water Conservation During Drought Conditions</i>	B					Built into City Code
Add New Action Items if Applicable						
EARTHQUAKES						
<i>EQ-a Ongoing: Conduct Inspections of Building Safety</i>	B					FD performs annual inspections of all commercial structures.
<i>EQ-b Ongoing: Protect Critical Facilities and</i>	B					



City of Lynden Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
Infrastructure						
<i>EQ-c Ongoing: Conduct Outreach to Builders, Architects, Engineers, and Inspectors</i>	B					Regular and close contact with building community, particularly during COVID emergency.
<i>Add New Action Items if Applicable</i>						
FLOODING						
<i>F-a Ongoing: Incorporate Flood Mitigation in Local Planning</i>	B					Required by code.
<i>F-b Ongoing: Limit or Restrict Development in Floodplain Areas</i>	B					This is required by state and local law.
<i>F-c Ongoing: Improve Stormwater Management Planning</i>	B					Undertaking major project to control stormwater runoff in north-central part of City (Pepin Creek).
<i>F-d Ongoing: Improve Stormwater Drainage System Capacity</i>	B					Improving drainage on Pepin Creek.
<i>F-e Ongoing: Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	B					This is part of normal City activity.
<i>F-f Ongoing: Protect Infrastructure</i>	B					This is part of normal City activity.
<i>F-g Ongoing: Preserve Floodplains as Open Space</i>	B					
<i>F-h Ongoing: Increase Awareness of Flood Risk and Safety</i>	B					
F-1 Elevate or Retrofit Structures and Utilities	B					Retrofitted sewer outfall into Nooksack River, completed Q1 2021.
F-2 Wastewater Treatment Plant	D					Low priority
F-3 Relocate Wastewater Shops and Offices	D					Low priority
F-4 Fishtrap Creek Flood Storage and Fish	B					Always ongoing



City of Lynden Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
Enhancement						
<i>Add New Action Items if Applicable</i>						
LANDSLIDES/EROSION						
<i>Add New Action Items if Applicable</i>	E					
LAND SUBSIDENCE						
<i>Add New Action Items if Applicable</i>	E					
TORNADOES						
<i>Add New Action Items if Applicable</i>	E					
TSUNAMI						
<i>Add New Action Items if Applicable</i>	E					
WILDFIRES						
<i>Add New Action Items if Applicable</i>						
	E					
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
<i>WW-a. Ongoing: Protect Power Lines</i>	B					
<i>Add New Action Items if Applicable</i>						
EXTREME TEMPERATURES						
<i>ET-a Ongoing: Assist Vulnerable Populations</i>	B					Will remain a high priority for this City.
<i>ET-b Ongoing: Educate Property Owners About Freezing Pipes</i>	B					Community is largely self-sufficient but City engages on this when appropriate.
<i>Add New Action Items if Applicable</i>						



City of Lynden Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
LANDSLIDE						
<i>Add New Action Items if Applicable</i>	E					
LIGHTNING						
<i>Add New Action Items if Applicable</i>	E					
SEVERE WIND						
<i>Add New Action Items if Applicable</i>						
MULTIPLE HAZARDS						
<i>MU-a. Ongoing. Prevent Development in Hazard Areas</i>						
<i>MU-b. Ongoing: Adopt and Enforce Building Codes</i>						
<i>MU-c. Ongoing: Monitor Mitigation Plan Implementation</i>						
<i>Add New Action Items if Applicable</i>						



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MERIDIAN SCHOOL DISTRICT

Contact Information

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Approving Authority

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Planning Process

School District will make use of its capabilities, infrastructure, and dedicated population. The School District will implement its mitigation strategy over the next five years primarily through its annual budget process and varying grant application processes.

The Meridian School District reviewed the previous plan to identify new hazards and recent events to inform new measures. We will work in conjunction with those organizations identified under each mitigation measure to initiate the overall mitigation strategy. Each department or office responsible for carrying out the measures will play a role in self-monitoring and evaluating achievement of measures and objectives. Because the School District has no land use or regulatory authority, it must rely heavily on collaboration with neighboring jurisdictions. For example, for density-related issues the School District will work with partners Whatcom County, and the Hazard Mitigation Forum to implement recommendations into the existing Whatcom County Comprehensive Plan. Other measures will be implemented through collaboration with the identified jurisdictions/departments listed under each measure's evaluation.

These efforts fall under a broader implementation strategy that represents a county-wide effort. This strategy must be adaptable to change while being consistent in its delivery.



Key Contributor List

- Kurt Harvill, Assistant Superintendent
- James Everett, Ed.D, Superintendent
- Joe O’Brien – District Technology Director
- Jay Yeager – District Maintenance and Facilities Director

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting Meridian School District will be used as a tool when the School District updates other plans and programs, such as the following:

- Strategic and Emergency Response Plan
- Damage Assessment Plan

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for the Meridian School District

The mitigation implementation strategy is a three-tiered method that emphasizes localized needs and vulnerabilities while addressing School District and multi-jurisdictional policies and programs. The first tier is implementation through individual citizen level—existing public education programs in the School District. For example, programs at the individual level through safety presentations and evacuation drills. The second is a School District-wide mechanism for implementation comprised of School District employees implementing strategies from the Emergency Programs Office, Construction Management Office, Facilities Management Office, and Computing & Telecommunications through an ambitious building construction and remodel plan. This perhaps offers the greatest opportunity to implement mitigation opportunities. The third tier is a more external and multi-jurisdictional mechanism, the Hazard Mitigation Forum (HMF).

This method ensures that implementation speaks to unique vulnerabilities at the most local level, allows for coordination among and between levels, and promotes collaboration and innovation. Further, it provides a structured system of monitoring implementation. Finally, it is a method that can adapt to the changing vulnerabilities of the School District, the region, and the times.



Public Outreach and Education

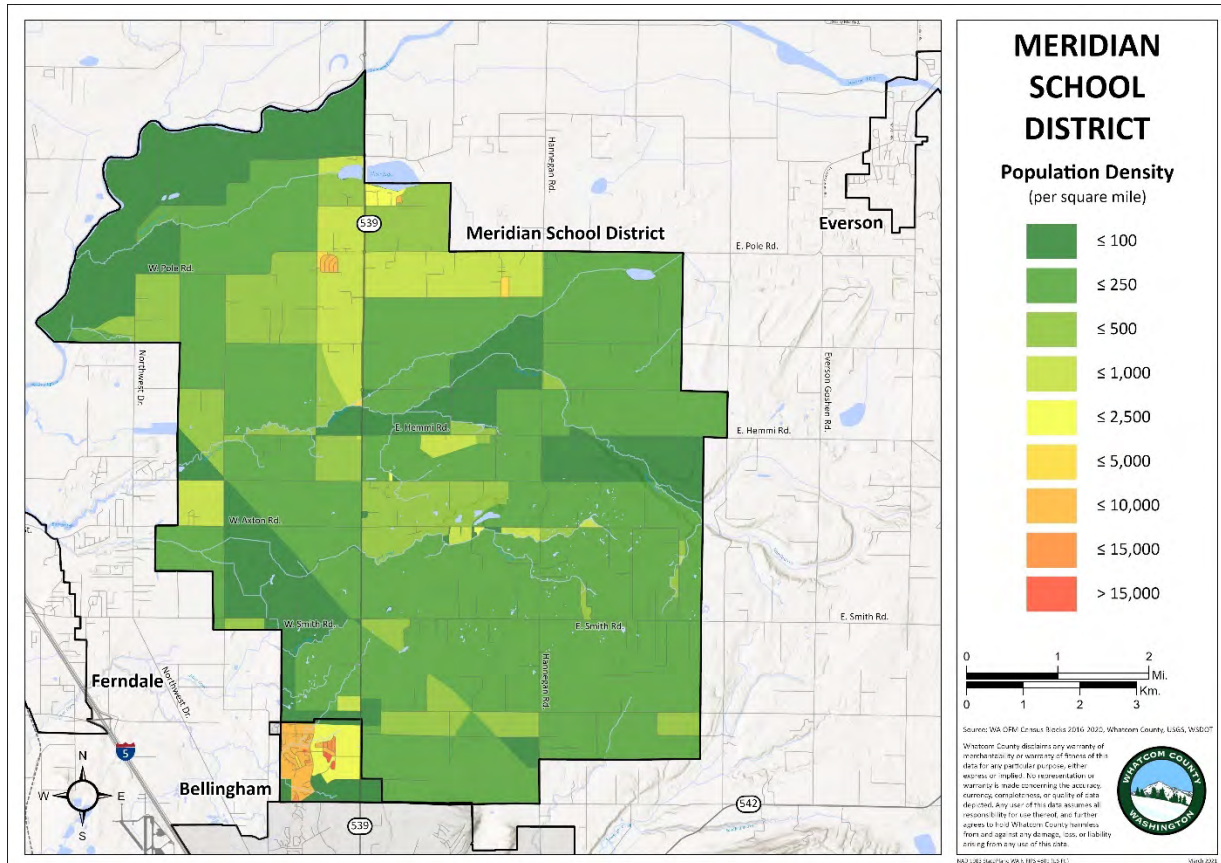
Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	Yes	We teach a fire-science course and have had guests come in to share with classes in the past. We have hosted the WSP drunk driving simulation each 4-6 years.
Ongoing public education or information programs	No Policy; District safety procedures.	We communicate with families and district community members when we are closed or are addressing some need with posting content to our website, Flash Alert system, Student Information System alerts, and robo-calling.
School-related programs for natural hazard safety	Policy 3432, Adopted 2013, Updated 2021	Monthly emergency drills include earthquake, various evacuations, shelter-in-place, and lockdown.
StormReady certification	No	Whatcom is a StormReady County
Firewise Community certification	No	N/A
Public-Private Partnership initiatives addressing disaster-related issues	No	N/A



Overview of Meridian School District, Hazards, and Assets

Geography of the Meridian School District

Meridian School District Students	1800 (2021 estimate)
Meridian School District Staff	250 staff
Total area	38 sq. mi. (within school district)



Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.

Presence of Hazards and their Impacts in the Meridian School District

The main hazards of concern are severe storms and earthquakes. As recently as November 2013, the Meridian School District High School sustained severe cold and wind, resulting in a burst sprinkler head and resulting flood. The damage has been repaired. Another burst pipe, power loss, barn door was blown off and replaced, roofing blown off by wind in the Performing Arts building during winter of 2020. The damage inflicted is a reminder of why proactive steps should be taken to mitigate future natural hazard events.



While enrollment has increased slightly in the past five years, we have not seen an impact to the context of natural hazards in the district. We are currently bringing in eight (8) portables to three sites in the district (three at Meridian Middle School, four at Irene Reither Elementary School, and one to the MP3 campus). There have been no changes other than an increase enrollment and the installation of additional portables (as noted above) during the summer of 2021.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Meridian School Districts' total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



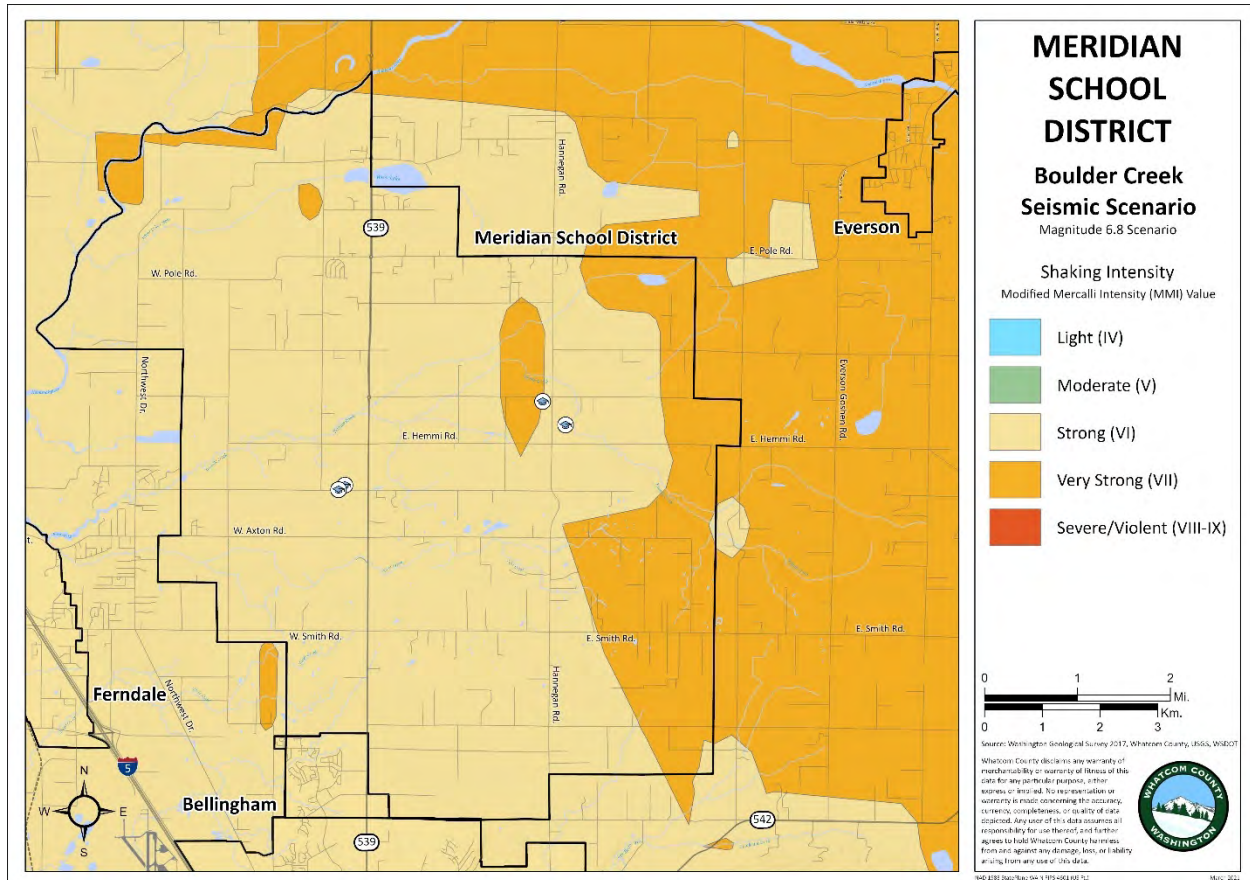
	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	97.4%	High	The Meridian School District is prone to earthquake impacts. In particular, according to the Boulder Creek Seismic Scenario, the Meridian School District could receive strong (VI) intensity in the south by the high school and very strong (VII) intensity more north by the middle school.
	Liquefaction	92.81%	High	There are seismically unstable soils throughout the school district.
	Landslide	0.04%	N/A	N/A
	Volcano	7.6%	N/A	N/A
	Tsunami	0%	N/A	N/A
	Mine Hazards	0%	N/A	There are Mine Hazards in north Bellingham, but none are directly below the Meridian schools.
Hydrological	Flooding	6%	Moderate	The Meridian High School, Meridian Parent Partnership Program building, and the Irene Reither Primary School all sit within or near a 100-year floodplain.
Meteorological	Wildfire	64.7%	Moderate	There is a risk of fires spreading to the Meridian schools.
	Severe Storms	100%	Moderate	The Meridian School District is subject to severe storms year-round.

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

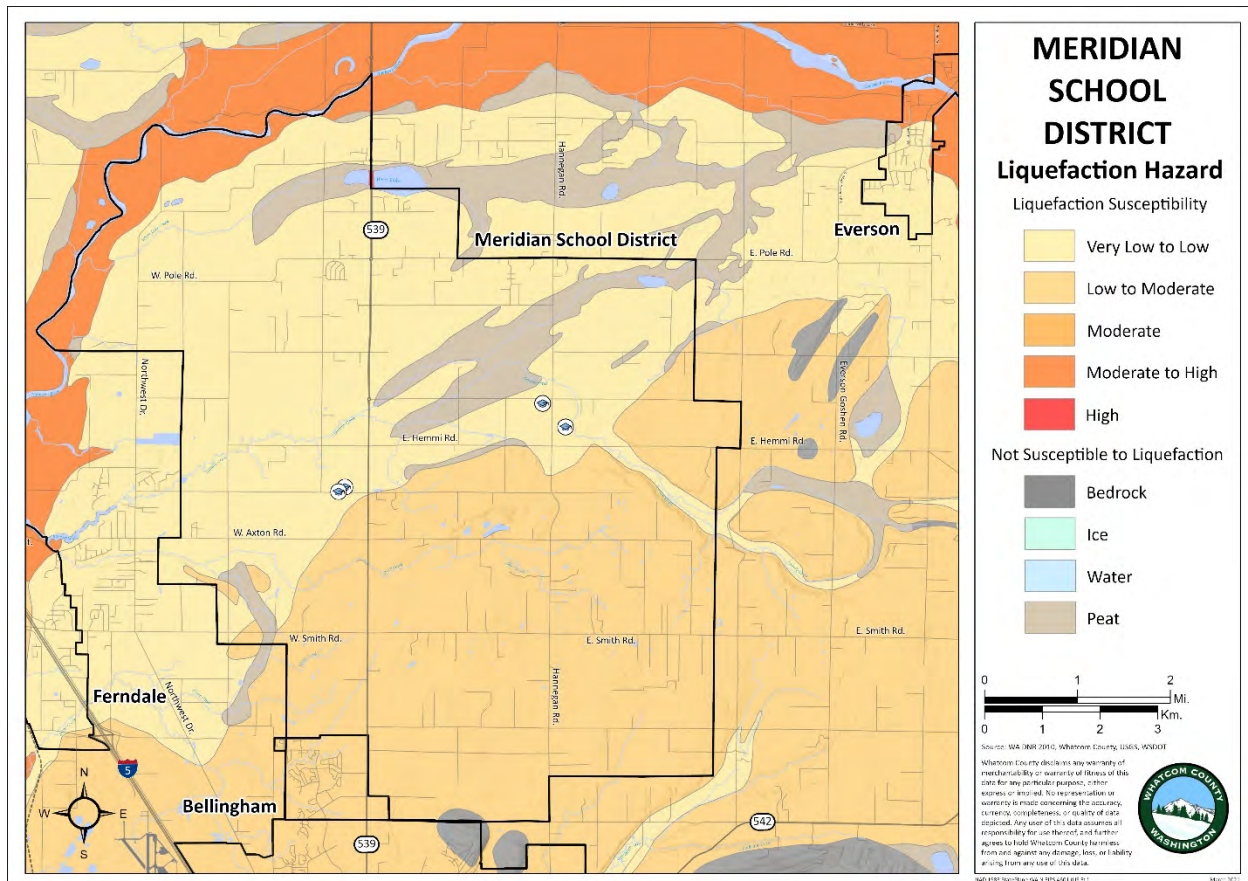


Natural Hazard Maps

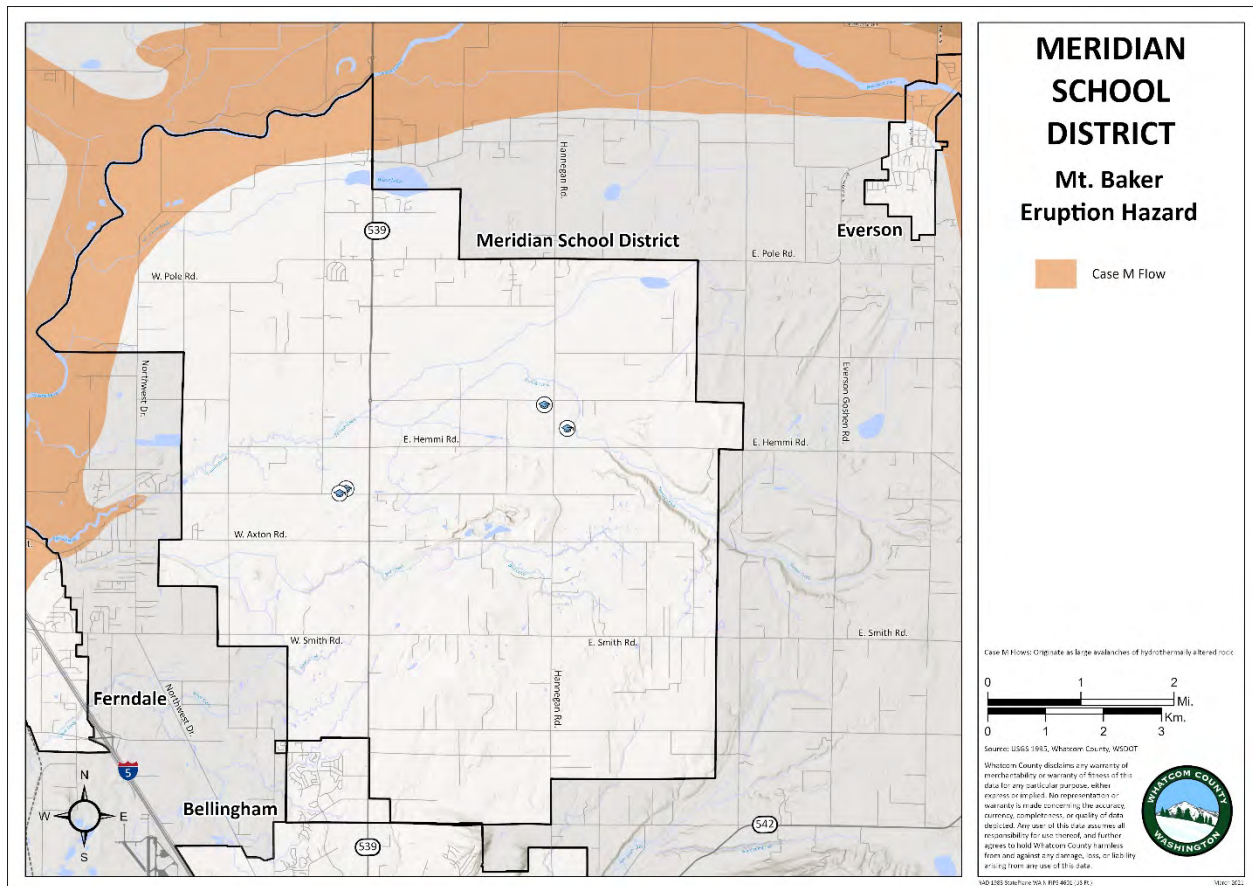
The following figures depict the natural hazards present within the jurisdiction.



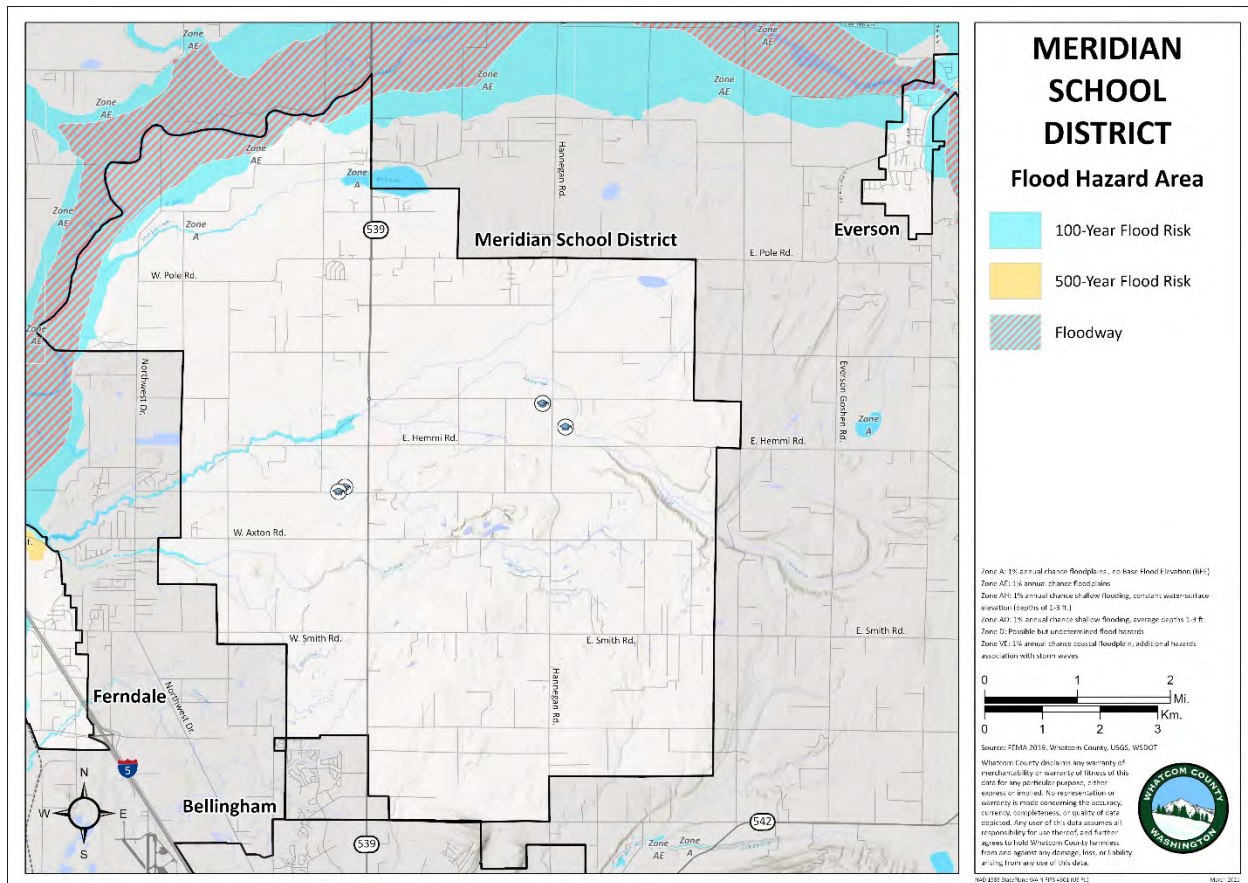
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



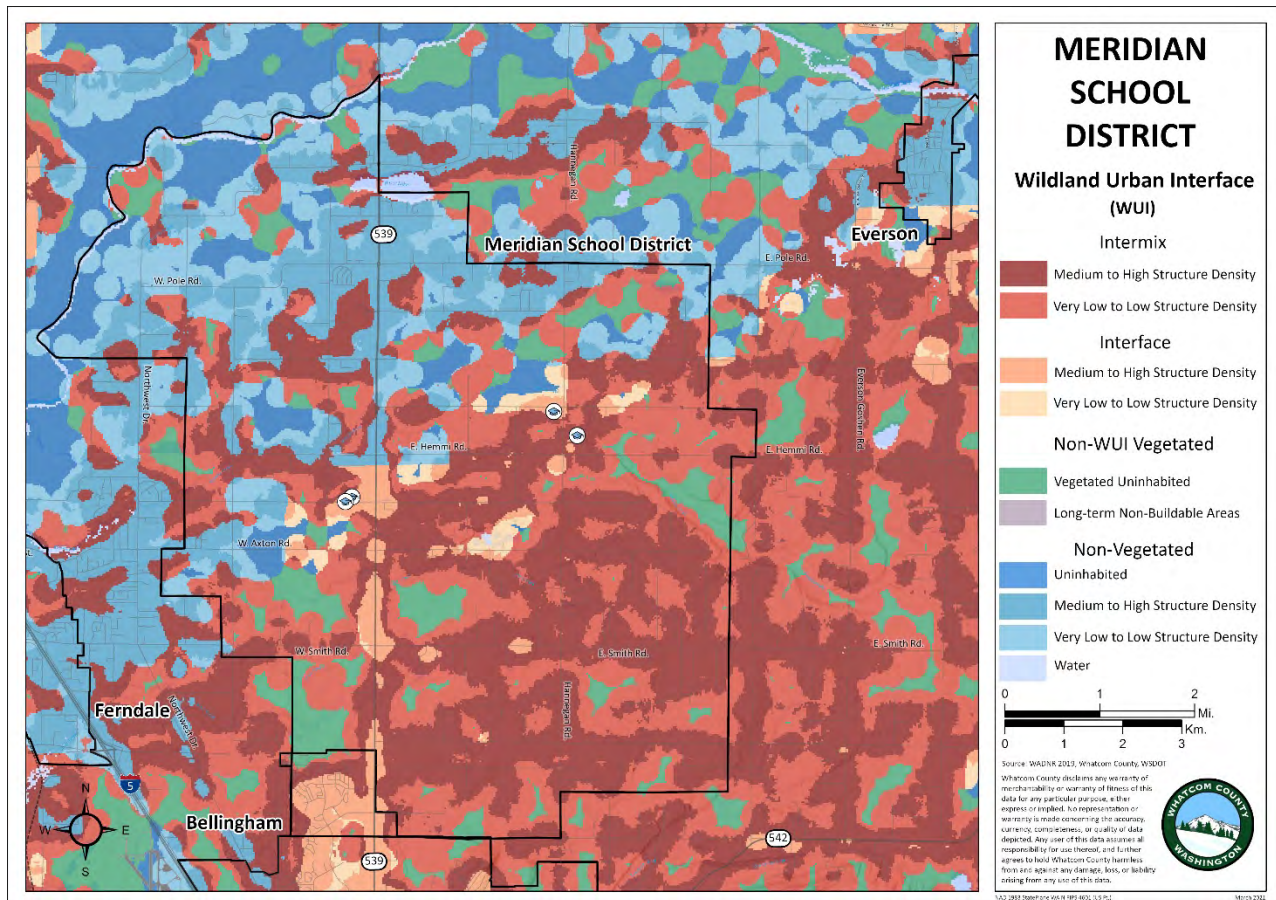
USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



SECTION 3. JURISTITION PROFILES AND MITIGATION STRATEGIES –MERIDIAN SCHOOL DISTRICT



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.

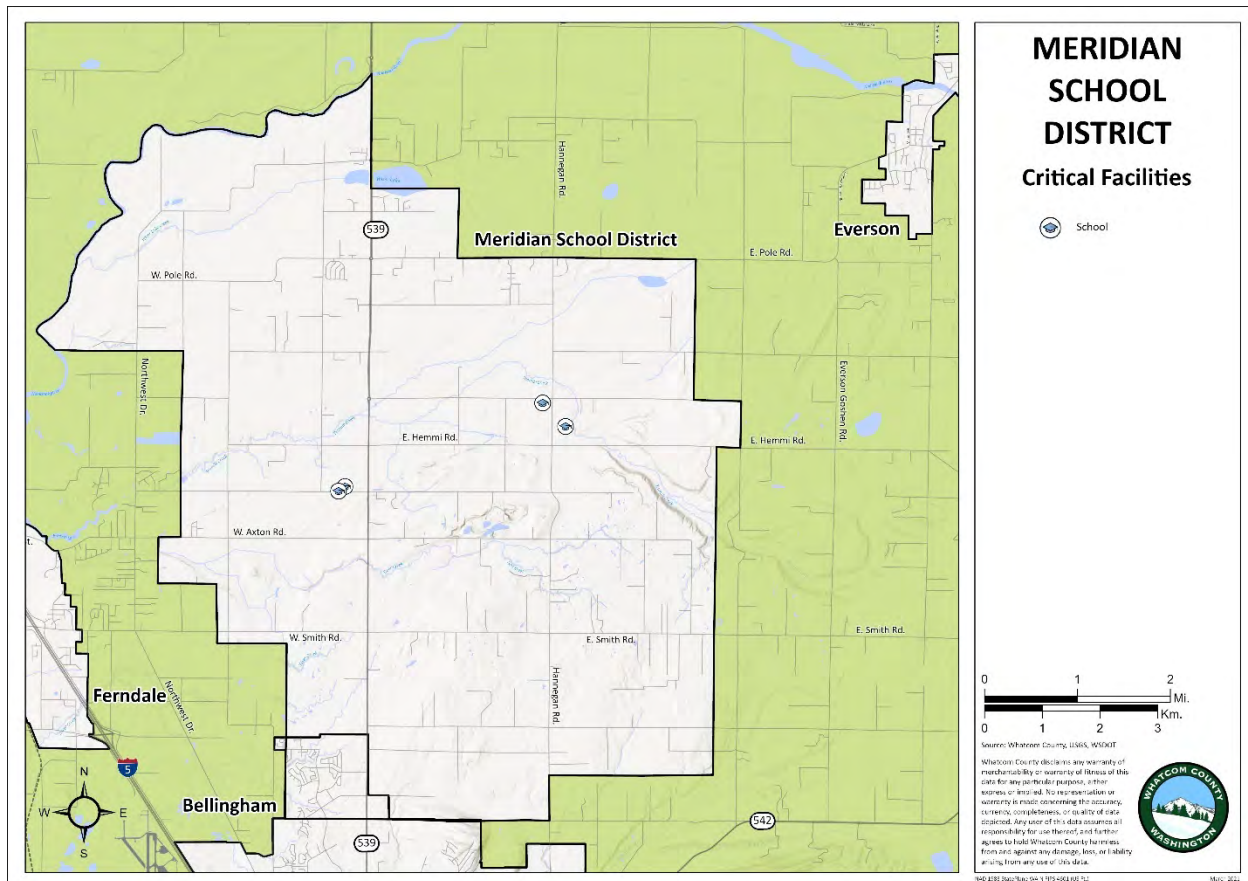


Meridian School District Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Middle School Gym	EF	3	861 Ten Mile Rd, Lynden, WA		
High School Gym	EF	3	194 W Laurel Rd, Bellingham, WA		
High School Performing Arts Center	EF	3	194 W Laurel Rd, Bellingham, WA		
Irene Reither Elementary	EF	3	954 East Hemmi Road, Everson, WA		
Meridian Middle School	EF	3	861 Ten Mile Rd, Lynden, WA		
Meridian High School	EF	3	194 W Laurel Rd, Bellingham, WA		School and Emergency Shelter
Meridian Parent Partnership	EF	3	240 West Laurel Road, Bellingham		School

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Map of critical facilities identified by the Meridian School District. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the Meridian School District

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Middle School Gym	EF	3	1	1	0	0	0	0	0	1	1
High School Gym	EF	3	1	1	0	0	0	0	0	1	1
High School Performing Arts Center	EF	3	1	1	0	0	0	0	0	1	1
Irene Reither Elementary	EF	3	1	1	0	0	0	0	0	1	1
Meridian Middle School	EF	3	1	1	0	0	0	0	0	1	1
Meridian High School	EF	3	1	1	0	0	0	0	0	1	1
Meridian Parent Partnership	EF	3	1	1	0	0	0	0	0	1	1

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSU** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

Meridian School District's Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	<i>MMI V</i>	-	-	-	-	-
	<i>MMI VI</i>	83.5%	90.3%	85.6%	75%	\$19
	<i>MMI VII</i>	13.9%	9.6%	13.9%	25%	\$7
	<i>MMI VIII - IX</i>	-	-	-	-	-
	TOTAL	97.4%	99.9%	99.5%	100%	\$26
	Liquefaction					
	<i>Very Low to Low</i>	43.7%	36.8%	51.4%	100%	\$25
	<i>Low to Moderate</i>	45.4%	53.6%	44.5%	-	-
	<i>Moderate</i>	-	-	-	-	-
	<i>Moderate to High</i>	3.7%	1.8%	0.8%	-	-
	<i>High</i>	0.01%	0.01%	-	-	-
	TOTAL	92.81%	92.21%	96.7%	100%	\$25
	Landslide					
	<i>Landslide Low</i>	-	-	-	-	-
	<i>Landslide Moderate</i>	-	-	-	-	-



	<i>Landslide High</i>	-	-	-	-	-
	<i>Fan Low</i>	0.04%	0.01%	0.03%	-	-
	<i>Fan Moderate</i>	-	-	-	-	-
	<i>Fan High</i>	-	-	-	-	-
	<i>Mine Hazard</i>	-	-	-	-	-
	TOTAL	0.04%	0.01%	0.03%	-	-
	Volcanic Eruption					
	<i>Case 1 Debris Flows</i>	-	-	-	-	-
	<i>Case 2 Debris Flows</i>	-	-	-	-	-
	<i>Case M Flows</i>	7.6%	1.9%	3.4%	-	-
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	-	-
	<i>Lateral Blast Hazard Zone</i>	-	-	-	-	-
	TOTAL	7.6%	1.9%	3.4%	-	-
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	-	-	-	-	-
	<i>Moderate to High Inundation Potential</i>	-	-	-	-	-
	<i>High Inundation Potential</i>	-	-	-	-	-
	TOTAL	-	-	-	-	-



Hydrological Hazards	Flooding					
	<i>100-year Flood</i>	2.2%	16.2%	1.6%	-	-
	<i>500-year Flood</i>	-	-	-	-	-
	<i>Floodway</i>	3.8%	5.7%	-	-	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-
	TOTAL	6%	21.9%	1.6%	-	-
Meteorological	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	1.5%	0.6%	1.7%	-	-
	<i>Interface Medium-High Structure Density</i>	3.9%	16.8%	4.8%	75%	\$21
	<i>Intermix Very Low-Low Structure Density</i>	25.4%	14.7%	12.4%	-	-
	<i>Intermix Medium-High Structure Density</i>	33.9%	27.3%	44.3%	25%	\$4
	TOTAL	64.7%	59.4%	63.2%	100%	\$25



Status of Meridian School District's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Education and Outreach

EO-a Drills: Classroom, School, and District. Monthly emergency drills include earthquake, various evacuations, shelter-in-place, and lockdown. Goals 1, 2, and 5.

Lead Agency	Principals, District Office
Funding Source	Local
Current Status	Ongoing

EO-b. Preparedness handbooks. Goals 1, 4, and 5.

Lead Agency	Whatcom County Division of Emergency Management
Funding Source	County
Current Status	Ongoing

EO-c. Annual Correspondence. Ongoing communication with WCDEM to ensure procedures are appropriate and updated. Goal 1.

Lead Agency	WCDEM/ District
Funding Source	County / Local
Current Status	Ongoing

Drought/heat wave

No actions ongoing, discontinued, or completed for this hazard.



Earthquake

EQ-a. Building Inspections/ trained staff for shut offs.

Lead Agency	Director of Maintenance
Funding Source	Local
Current Status	Ongoing

EQ-b. Review and Update Emergency Preparedness Plan

Lead Agency	Supt or Designee
Funding Source	Local
Current Status	Ongoing

EQ-c. Increase Risk Awareness

Lead Agency	Supt or Designee
Funding Source	Local
Current Status	Ongoing

EQ-d. Damage Assessment Plan

Lead Agency	Designee
Funding Source	Local
Current Status	Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

No actions ongoing, discontinued, or completed for this hazard.

Landslide/erosion

No actions ongoing, discontinued, or completed for this hazard.

Landslide Subsidence



No actions ongoing, discontinued, or completed for this hazard.

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

SS-a. Storm Preparedness Check list.

Lead Agency	Director of Maintenance
Funding Source	Local
Current Status	Ongoing

SS-b. Post Storm checklists (debris and damage management).

Lead Agency	Director of Maintenance
Funding Source	Local
Current Status	Ongoing

SS-c. Review and Update Emergency Preparedness Plan

Lead Agency	Supt or Designee
Funding Source	Local
Current Status	Ongoing

Severe Wind

No actions ongoing, discontinued, or completed for this hazard.

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

No actions ongoing, discontinued, or completed for this hazard.

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes



No actions ongoing, discontinued, or completed for this hazard.

Multiple Hazards

No actions ongoing, discontinued, or completed for this hazard.



Meridian School District 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Meridian School District-Specific Hazard Mitigation Goals

Meridian School District does not add to these county-wide goals.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Meridian School District considered mitigation options related to earthquakes and severe storms because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Meridian School District. Some options have already been implemented or are ongoing in Meridian School District, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Meridian School District has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. Meridian School District is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.



In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Meridian School District Identified Mitigation Actions 2021-2025

MERIDIAN SCHOOL DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Education and Outreach Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	EO-a Ongoing -- Drills: Classroom, School, and District Monthly emergency drills include earthquake, various evacuations, shelter-in-place, and lockdown.	1,2,5	Principals, District office		O		
	EO-b. Ongoing -- Preparedness handbooks.	1,4,5	WCDEM		O		
	EO-c Ongoing -- Annual Correspondence Ongoing communication with WCDEM to ensure procedures are appropriate and updated.	1	WCDEM/ District		O		
Hazard Specific (Reference: <u>Whatcom County Mitigation Ideas</u>)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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MERIDIAN SCHOOL DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Dam/Levee Failures (See: Flooding)	There are no new actions considered/all actions ongoing, discontinued, or completed						
Droughts/Heat Waves	There are no new actions considered/all actions ongoing, discontinued, or completed						
Earthquakes	<i>EQ-a. Ongoing: Building Inspections/ trained staff for shut offs.</i>	1,5	Director of Maintenance				
	<i>EQ-b. Ongoing: Review and Update Emergency Preparedness Plan</i>	1, 5	Supt or Designee		0		
	<i>EQ-c. Ongoing: Increase Risk Awareness</i>	2	Supt or Designee		0		
	<i>EQ-d. Ongoing: Damage Assessment Plan</i>	1, 5	Supt or Designee		0		
Extreme Temperatures	There are no new actions considered/all actions ongoing, discontinued, or completed						
Flooding	There are no new actions considered/all actions ongoing, discontinued, or completed						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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MERIDIAN SCHOOL DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Landslide/ Erosion	There are no new actions considered/all actions ongoing, discontinued, or completed						
Land Subsidence	There are no new actions considered/all actions ongoing, discontinued, or completed						
Lightning	There are no new actions considered/all actions ongoing, discontinued, or completed						
Severe Storms	<i>SS-a. Ongoing: Storm Preparedness Checklist.</i>	1,5	Director of Maintenance		O		
	<i>SS-b. Ongoing: Post Storm checklists (debris and damage management)</i>	1,5	Director of Maintenance		O		
	<i>SS-c. Ongoing: Review and Update Emergency Preparedness Plan</i>	1,5	Supt or Designee		O		
Severe Wind	There are no new actions considered/all actions ongoing, discontinued, or completed						
Tornadoes	There are no new actions considered/all actions ongoing, discontinued, or completed						
Tsunami	There are no new actions considered/all actions ongoing, discontinued, or completed						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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MERIDIAN SCHOOL DISTRICT IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Wildfires	There are no new actions considered/all actions ongoing, discontinued, or completed						
Winter Storms/ Freezes (Severe Winter Weather)	There are no new actions considered/all actions ongoing.						
Multiple Hazards	There are no new actions considered/all actions ongoing.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Meridian School District Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



Meridian School District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
Education and Outreach						
<i>EO-a Ongoing: Drills-- Classroom, School, and District</i>	B					
<i>EO-b Ongoing: Preparedness handbooks</i>	B					
<i>EO-c Ongoing: Annual Correspondence</i>	B					
<i>Add New Action Items if Applicable</i>						
DAM/LEEVE FAILURES						
<i>Add New Action Items if Applicable</i>	N/A					
DROUGHTS/HEAT WAVES						
<i>Add New Action Items if Applicable</i>	N/A					
EARTHQUAKES						
<i>EQ-a. Ongoing: Building Inspections/ trained staff for shut offs.</i>	B					
<i>EQ-b Ongoing: Review and Update Emergency Preparedness Plan</i>	B					
<i>EQ-c Ongoing: Increase Risk Awareness</i>	B					
<i>EQ-d Ongoing: Damage assessment plan</i>	B					
<i>Add New Action Items if Applicable</i>						
SEVERE STORMS						
<i>SS-a. Ongoing: Storm Preparedness Check list</i>	B					
<i>SS-b. Ongoing: Post Storm checklists (debris and damage management)</i>	B					
<i>SS-c. Ongoing: Review and Update Emergency Preparedness Plan</i>	B					
<i>Add New Action Items if Applicable</i>						



Meridian School District Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
LANDSLIDES/EROSION						
<i>Add New Action Items if Applicable</i>						
LAND SUBSIDENCE						
<i>Add New Action Items if Applicable</i>						
TORNADOES						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						
<i>Add New Action Items if Applicable</i>						
WILDFIRES						
<i>Add New Action Items if Applicable</i>						
EXTREME TEMPERATURES						
<i>Add New Action Items if Applicable</i>						
LANDSLIDE						
<i>Add New Action Items if Applicable</i>						
LIGHTNING						
<i>Add New Action Items if Applicable</i>						
SEVERE WIND						
<i>Add New Action Items if Applicable</i>						
MULTIPLE HAZARDS						
<i>Add New Action Items if Applicable</i>						





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CITY OF NOOKSACK

Contact Information

Dan MacPhee
Police Chief, City of Everson
P.O. Box 315, Everson, WA 98247
(360) 966-4212

Approving Authority

Mayor Marshall Judy & City Council Members
103 W. Madison Street Nooksack, WA 98276
(360) 966-2531

Planning Process

The City of Nooksack process of reviewing, updating, and adopting the 2021 update of the Whatcom County Natural Hazards Mitigation Plan (NHMP or Plan) included review by multiple City departments and formal adoption by the City Council. Review of the prior plan began in early 2021. The City Planner reviewed the previous plan and met with the City Clerk and Public Works Director to identify sections of the Plan that might need to be updated. From February through April 2021, the City Planner attended a series of coordination meetings hosted by the County Division of Emergency Management (DEM). Initial guidance was received from DEM regarding the update schedule and the main areas to focus on as part of the update.

In early March 2021, the City provided public notice in the Lynden Tribune regarding the planned update of the NHMP and posted information regarding the update on the City website. Information regarding opportunities to provide public comment was also posted on the City website. During March and April of 2021, the City Planner prepared draft revisions to the NHMP and met with the Public Works Director and the Mayor to review the draft revisions and receive additional input. City staff also coordinated with the Everson Chief of Police regarding details contained in the Nooksack section of the Plan because the Everson Police Department provides police protection services to the city of Nooksack on a contract basis. During the same time period, City staff participated in two virtual public meetings hosted by DEM where the public was invited to receive information and ask questions regarding the 2021 update of the NHMP.

The draft revisions to the NHMP addressing the city of Nooksack, incorporating input received from the Public Works Director, Mayor and Chief of Police, were submitted to DEM in late April of 2021. In May of 2021, DEM notified the public regarding the availability of draft revisions to the full Plan and hosted a third virtual public meeting to receive comments from the public. Following review by the City Council in May 2021, the City Council passed a motion supporting the updates contained in the Nooksack section of draft NHMP. Prior to the Plan being



submitted to the Federal Emergency Management Agency for review, the City Council formally adopted the draft Plan on XX, 2021 through Resolution No. XX. It is anticipated that formal adoption by ordinance will follow approval from FEMA.

Key Contributor List

- Rollin Harper, City Planner
- Mayor Marshall Judy
- Virginia Arnason, City Clerk-Treasurer
- Bob Skillman, Public Works Director
- Everson Chief of Police, Dan MacPhee

Meeting Dates and Attendees

- February 18, 2021 – Harper, Arnason and Skillman
- April 15, 2021 – Harper and Arnason
- April 30, 2021 – Harper and Skillman

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the City of Nooksack will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive plan required by the Growth Management Act (GMA);
- Development regulations required by the GMA;
- Critical areas ordinance;
- Capital improvement program;
- Capital facilities planning; and
- Water Resource Inventory Area planning.

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for the City of Nooksack

The City of Nooksack will maintain and update the Natural Hazards Mitigation Plan as needed to respond to changed circumstances, to incorporate best available science and to address



changing community priorities. The Plan update process will include community engagement through public meetings and opportunities for public comment. Formal updates of the Plan will be reviewed by the City Council prior to adoption.



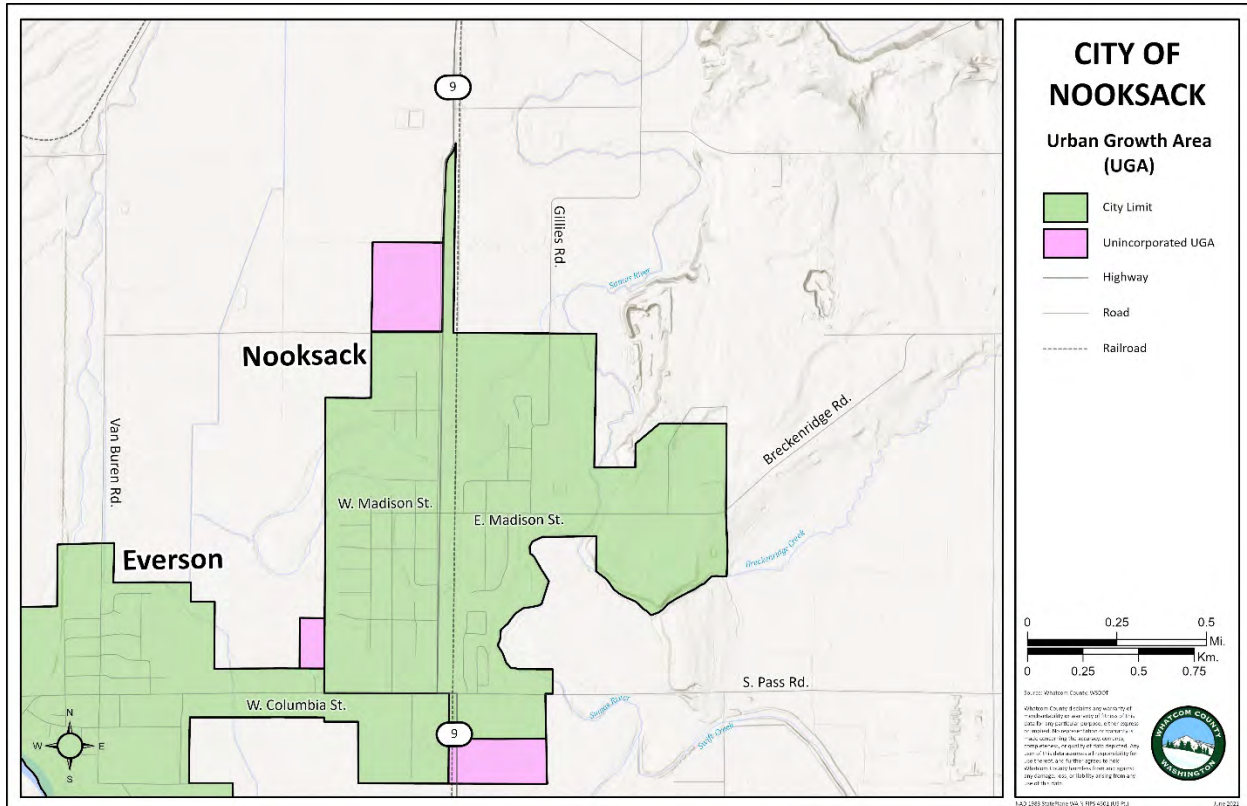
Public Outreach and Education

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	
Ongoing public education or information programs	YES 2000-City newsletters	Information regarding water conservation and flood preparedness
School-related programs for natural hazard safety	Yes 2005	Semi-annual in-school drills regarding responses to natural disasters
Public education or information program	Yes 2000-City newsletters	Information regarding water conservation and flood preparedness
StormReady certification	No	Whatcom County is StormReady certified.
Firewise Community certification	No	N/A
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		



Growth Trends

This map displays the UGA for the City of Nooksack as designated by the Whatcom County Comprehensive Plan.





Presence of Hazards and their Impacts in the City of Nooksack

Flooding is the main natural hazard that affects the City of Nooksack. Flooding events that affect Nooksack occur about every five to ten years and are associated with flooding of both the Nooksack River along the western border of the city and the Sumas River. That forms a portion of the eastern City limits. The most recent event was in February 2020 when the Nooksack River overflowed its banks to the south of the adjacent city of Everson. As is typical in major flooding events on the Nooksack River, these floodwaters diverged from the main channel and flowed north (through what is referred to as the “Nooksack Overflow Corridor”), flooding the western portions of residential subdivisions in the City of Nooksack and continuing north through the City of Sumas and into Canada. The flow of floodwaters through the Nooksack Overflow Corridor in 2020 resulted in the temporary closure of a portion of State Route 544 (W. Main Street through the City of Everson) that is the main connection route between the two cities. This closure can significantly interrupt access to police, fire and emergency services that are located on the opposite side of the Overflow Corridor from the City of Nooksack.

During the same event, flooding occurred on the Sumas River that resulted in temporary closure of a major north-south travel route. Flooding of the Sumas River contributes to an additional hazard that affects the City of Nooksack. Floodwaters from the Sumas River often pick up and carry fine particulate matter that contains naturally occurring asbestos that originates from a landslide on the western slope of the nearby Sumas Mountain. These potentially toxic materials are then deposited throughout the Sumas River floodplain, where they can dry and become airborne.

Since the 2016 NHMP was adopted, the City of Nooksack has grown by roughly 170 people. The great majority of this growth has occurred in locations outside the 100-year floodplain. Since 2016, the City has increased residential densities in non-floodplain areas and in areas where structures and building sites can be elevated above the elevation of the 100-year flood event. The City also worked in cooperation with Whatcom County to add approximately 30 acres outside the floodplain to the City’s designated urban growth area in exchange for removing a larger area from the UGA that was subject to both flooding from the Sumas River and deposition of naturally occurring asbestos. In December 2019 the City annexed an over 100-acre area of higher ground to the east of the Sumas River that is almost entirely outside the 100-year floodplain.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Nooksack’s total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering



the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



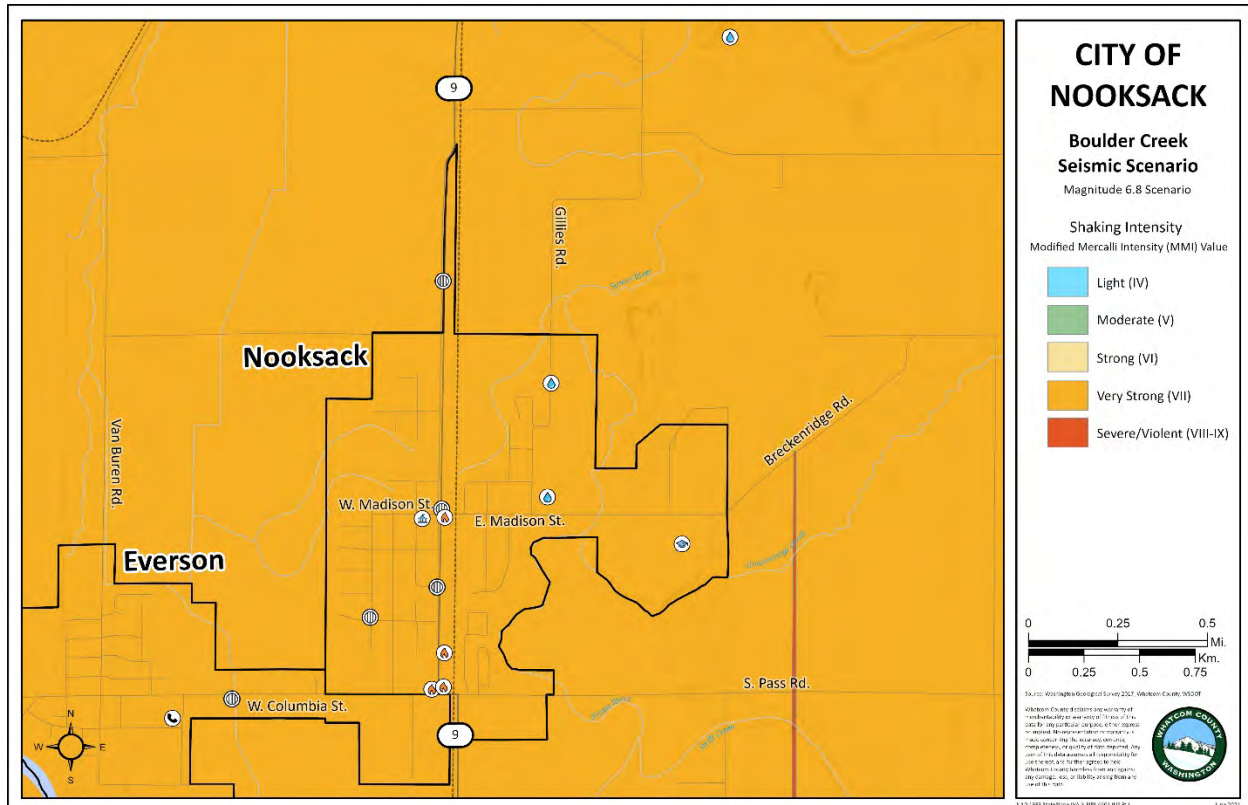
	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	100%	Mod	The city is subject to seismic activity.
	Liquefaction	97.2%	Low	Seismically-sensitive soils.
	Landslide	0%	None	N/A
	Volcano	93.9%	Low	All of the area within the city limits would be affected by a Mount Baker lahar.
	Tsunami	0%	None	N/A
	Mine Hazards	0%	None	N/A
Hydrological	Flooding	45.5%	High	This hazard occurs frequently and can be severe, especially due the presence of isolated areas. Major flooding occurred in 1989, 1990, and 1995. Flooding begins in the west side of the City and moves east and north up Highway 9, toward Sumas. A dike was extended in 1991 with money from mitigation. The dike runs parallel to the Nooksack River on the West side, ending on Emerson Road. It prevents water from going to Washington St. and on through to Main Street. The dike diverts Nooksack River overflow to the floodway that runs to the north along the western boundary of Nooksack. The Sumas River can flood east of the City, but does not cause severe problems.
Meteorologic al	Wildfire	20.3%	None	N/A

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

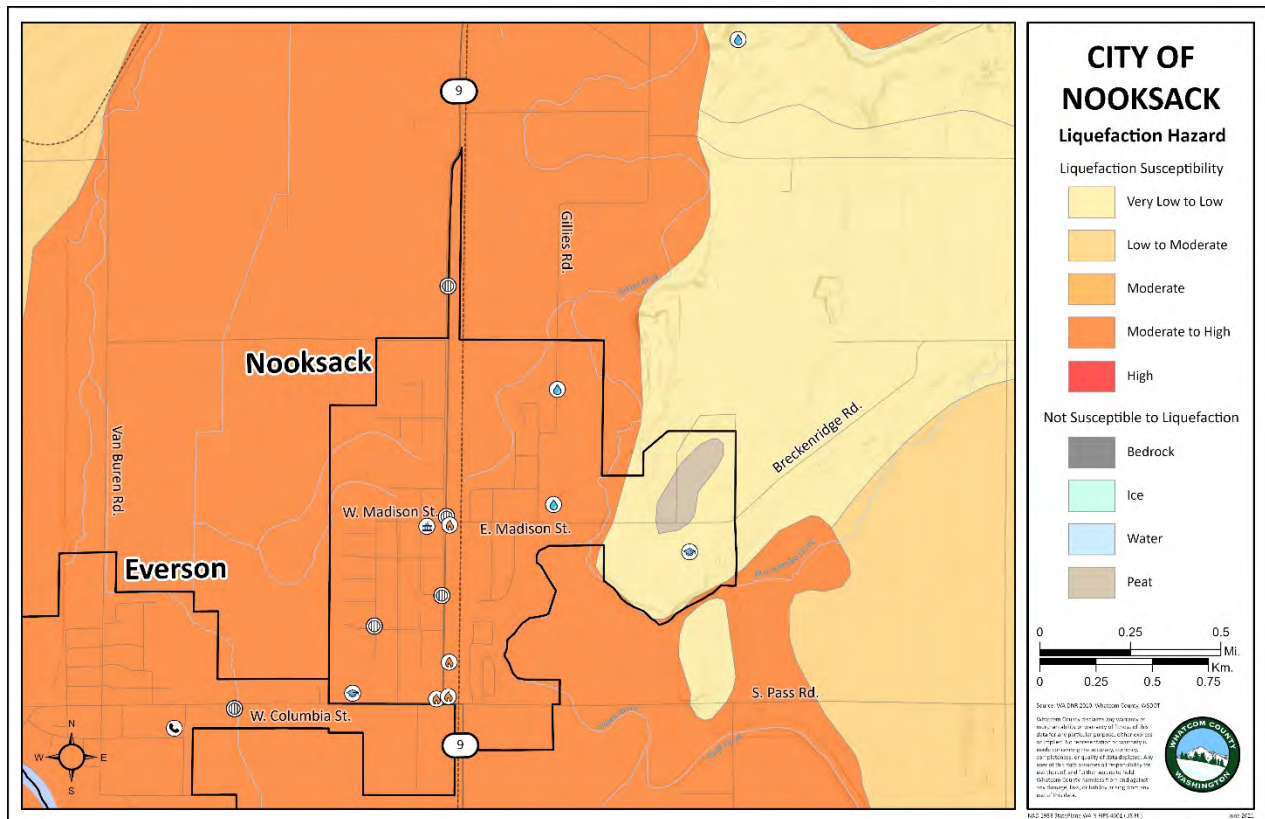


Natural Hazard Maps

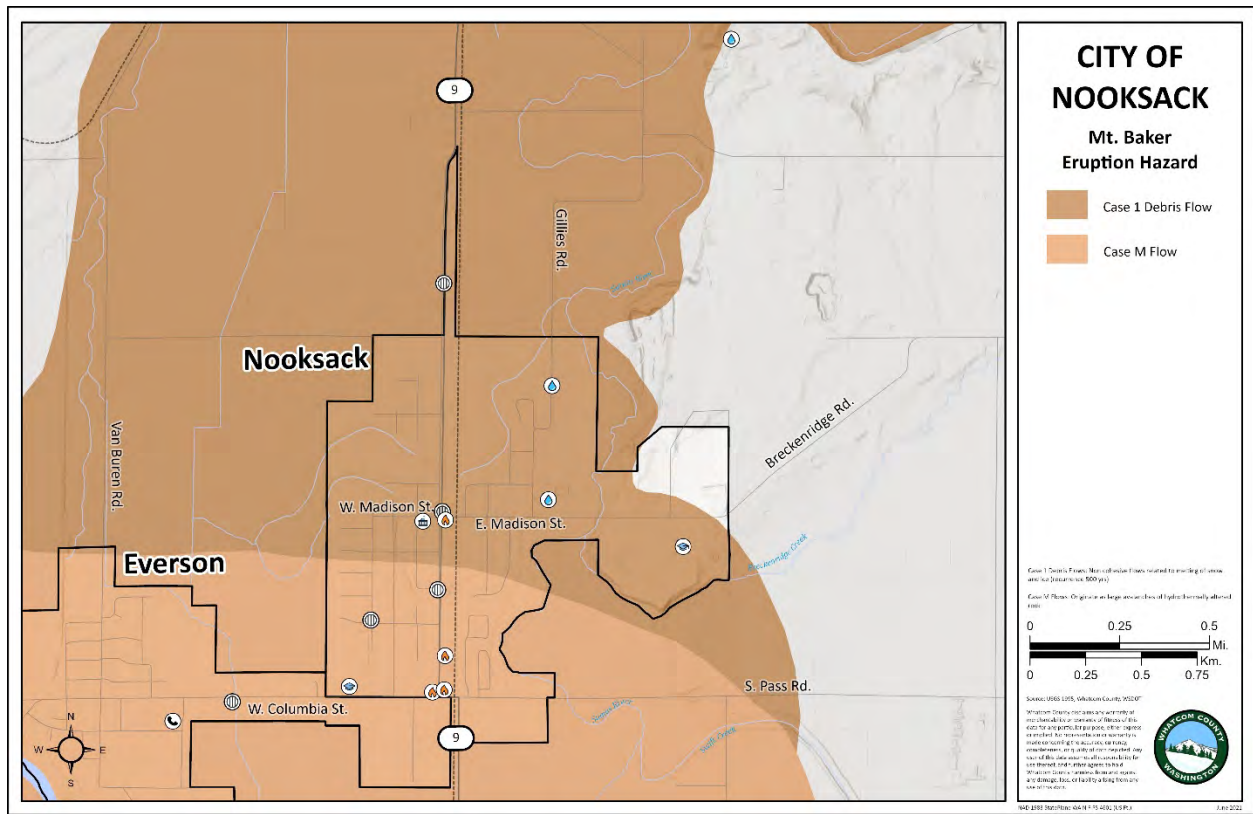
The following figures depict the natural hazards present within the jurisdiction.



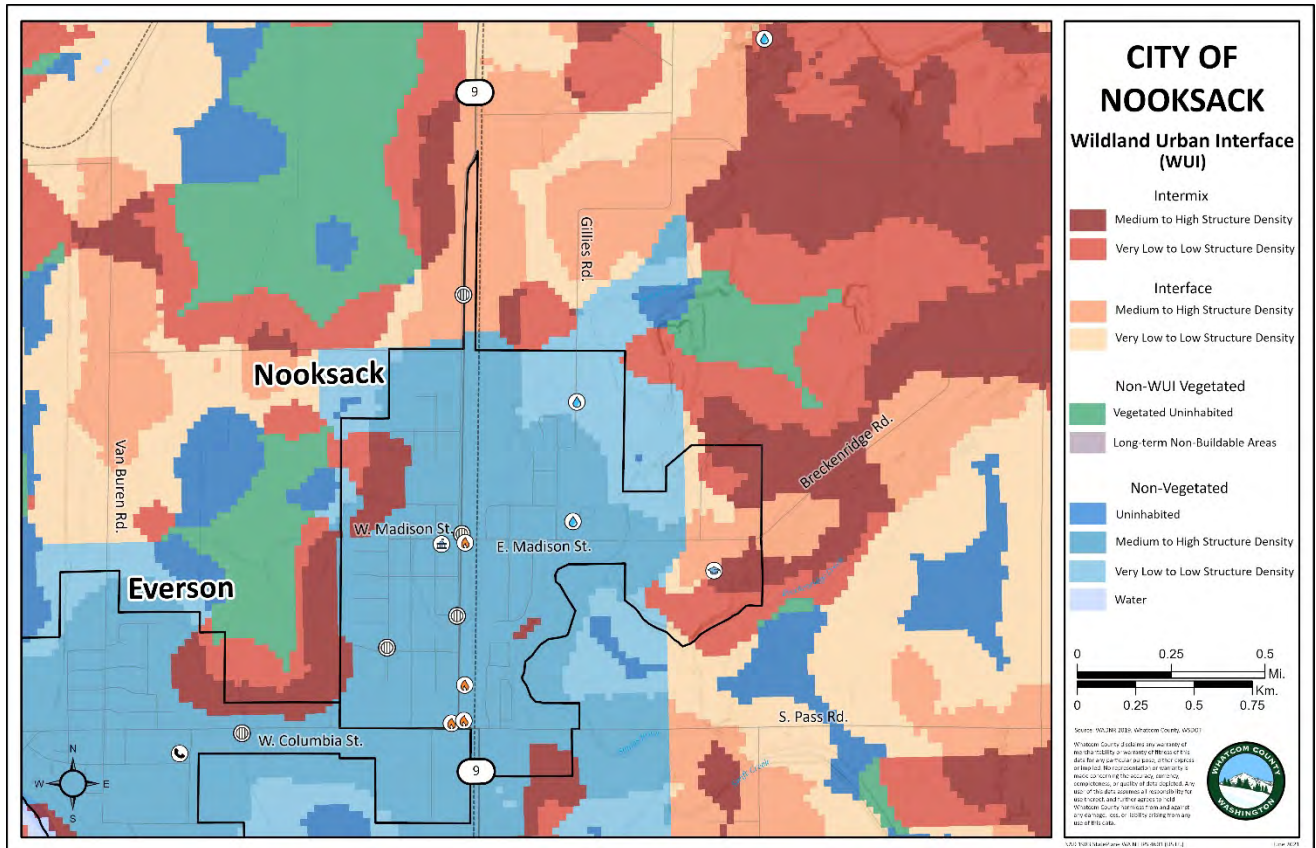
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.

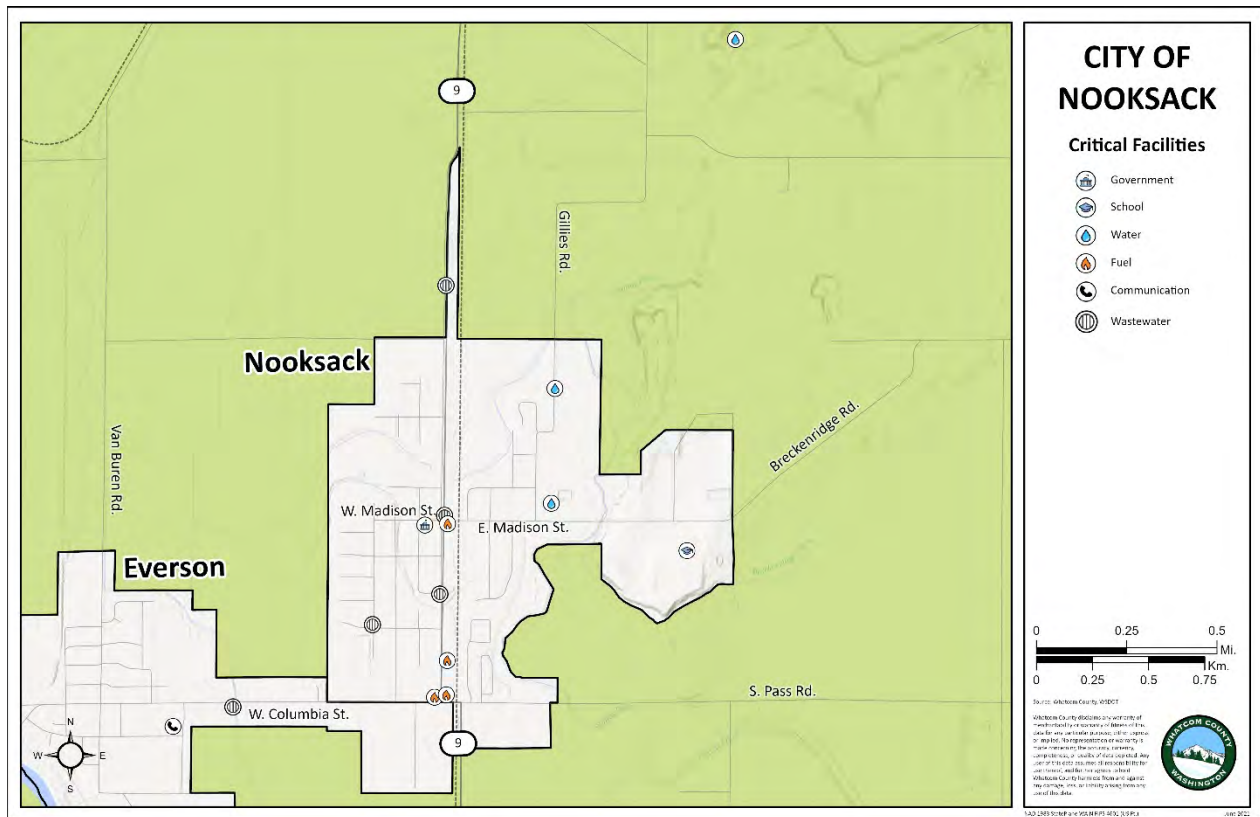


Nooksack Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Elementary School - Dist. 506	EF	2	3333 Breckenridge Road		Evacuation Center
Nooksack City Hall	EF	3	103 West Madison St		Government
Nooksack Water Tanks	LUS	3	8386 Gillies Rd.		Utility: Water
Post Office	EF	2	108 Blair Drive, Everson		Mail
Pump-Station #1	LUS	3	105 Garfield St.		Utility: Sewer
Pump-Station #2	LUS	2	610 Nooksack Ave.		Utility: Sewer
Pump-Station #3	LUS	2	1216 Nooksack Ave.		Utility: Sewer
Starvin' Sams	HMF	1	102 Columbia St.		Fuel
Pump Station #12	LUS	2	305A West Third St.		Utility: Sewer
Water Booster Pump	LUS	3	1014 Gillies Rd.		Utility: Water
Pacific Pride	HMF	1	204 Nooksack Ave.		Fuel
Whatcom Farmers Co-op Energy	HMF	2	508 Nooksack Ave.		Fuel Propane Depot
Water Pump Station	LUS	2	503 E. Madison St.		Utility: Water
CHS Northwest Store	HMF	1	102 Nooksack Ave.		Fuel
Pump Station #4 (Interceptor)	LUS	3	506 E. Main Street, Everson		Utility: Sewer
CHS Northwest Store	HMF	1	102 Nooksack Avenue		Utility: Sewer
US Border Patrol	EF	3	9648 Garrison Road		

Facility Type: **EF** = Essential Facility; **HMF** = Hazardous Materials Facility; **HPL** = High Potential Loss; **LUS** = Lifeline Utility System

Significance to community function: **1**=Moderate; **2**= High; **3**=Very High



Map of critical facilities identified by the City of Nooksack. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the City of Nooksack

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Elementary School - Dist. 506	EF	2	1	1	0	0	1	1	0	1	0.81
Nooksack City Hall	EF	3	1	1	0	0	1	0	0	0	0.86
Nooksack Water Tanks	LUS	3	1	1	0	0	0	0	0	1	0.64
Post Office	EF	2	1	1	0	0	1	1	0	0	0.66
Pump-Station #1	LUS	3	1	1	0	0	1	1	0	0	1
Pump-Station #2	LUS	2	1	1	0	0	1	0	0	0	0.57
Pump-Station #3	LUS	2	1	1	0	0	1	1	0	1	0.81
Starvin' Sams	HMF	1	1	1	0	0	1	1	0	0	0.33
Pump Station #12	LUS	2	1	1	0	0	1	1	0	0	0.66
Water Booster Pump	LUS	3	1	1	0	0	1	1	0	0	1
Pacific Pride	HMF	1	1	1	0	0	1	0	0	0	0.29
Whatcom Farmers Co-op Energy	HMF	2	1	1	0	0	1	0	0	0	0.57
Water Pump Station	LUS	2	1	1	0	0	1	1	0	0	0.66
Pump Station #4 (Interceptor)	LUS	1	1	1	0	0	1	1	0	0	1
CHS Northwest Store	HMF	1	1	1	0	0	1	0	0	0	.29
US Border Patrol	EF	3	1	1	0	0	1	1	0	0	1

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

City of Nooksack Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity					
	MMI V	-	-	-	-	-
	MMI VI	-	-	-	-	-
	MMI VII	100%	100%	100%	93.7%	\$7
	MMI VIII - IX	-	-	-	6.3%	\$5
	TOTAL	100%	100%	100%	100%	\$12
	Liquefaction					
	Very Low to Low	14.4%	1.1%	-	6.3%	\$5
	Low to Moderate	-	-	-	-	-
	Moderate	-	-	-	-	-
	Moderate to High	82.8%	98.8%	100%	87.5%	\$7
	High	-	-	-	-	-
	TOTAL	97.2%	99.9%	100%	93.8%	\$12
	Landslide					
	Landslide Low	-	-	-	-	-
	Landslide Moderate	-	-	-	-	-
	Landslide High	-	-	-	-	-
	Fan Low	-	-	-	-	-
	Fan Moderate	-	-	-	-	-
	Fan High	-	-	-	-	-



	Mine Hazard	-	-	-	-	-
	TOTAL	-	-	-	-	-
	Volcanic Eruption					
	Case 1 Debris Flows	66.4%	58.1%	57.5%	50%	\$9
	Case 2 Debris Flows	-	-	-	-	-
	Case M Flows	27.5%	41.6%	42.5%	43.8%	\$2
	Pyroclastic Flows, Lava Flows, and Ballistic Debris	-	-	-	-	-
	Lateral Blast Hazard Zone	-	-	-	-	-
	TOTAL	93.9%	99.7%	100%	93.8%	\$11
	Tsunami, Inundation Zone					
	Low to Moderate Inundation Potential	-	-	-	-	-
	Moderate to High Inundation Potential	-	-	-	-	-
	High Inundation Potential	-	-	-	-	-
	TOTAL	-	-	-	-	-
Hydrological	Flooding					
	100-year Flood	25.7%	20.4%	16.2%	18.8%	\$0.8
	500-year Flood	16.9%	25.2%	34.5%	12.5%	\$5
	Floodway	2.9%	2%	0.3%	6.3%	-
	Undetermined (Zone D)	-	-	-	-	-
	TOTAL	45.5%	47.6%	51%	37.6%	\$5.8
Meteorolog	Wildfire Zones					
	Interface Very Low-Low Structure Density	2.3%	0.1%	-	-	-
	Interface Medium-High Structure Density	4.8%	4.3%	4.2%	12.5%	\$4



	<i>Intermix Very Low-Low Structure Density</i>	4.9%	1.5%	0.2%	-	-
	<i>Intermix Medium-High Structure Density</i>	8.3%	5.7%	3%	6.3%	\$0.3
	<i>TOTAL</i>	20.3%	11.6%	7.4%	18.8%	\$4.3



Status of Nooksack's 2016-2020 and Ongoing Hazard Mitigation Actions

The cities of Everson and Nooksack chose to collaborate in their mitigation strategies because Everson provides Nooksack with police and sewer services. (Note: The following information is copied from Everson.)

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

General: All Hazards

G-a. Adopt and enforce building codes. This applies to earthquakes, flooding, winter storms/freezes, and severe winds. The City Planning, Building and Public Works Departments continue to adopt and enforce building codes and development regulations that address natural hazards mitigation.

Lead Agency	Nooksack Planning, Building and Public Works Departments
Funding Source	Local
Current Status	Ongoing

Drought/heat wave

D-a. Assess Vulnerability to Drought Risk. The City Planning Department continues to assess risks related to drought, including as part of the 2016 update to the City's critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

D-b. Monitor Drought Conditions. The City Public Works Department continues to monitor drought conditions on annual basis and implements water-related mitigation strategies as



appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-c. Monitor Water Supply. The City Public Works Department continues to monitor the public water supply and implement water conservation strategies as appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-d. Plan for Drought. The City Planning Department continues to plan for droughts, including as part of the 2016 update of the city comprehensive land use plan.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

D-e. Require Water Conservation During Drought Conditions. The City Public Works Department continues to monitor drought conditions and implement water conservation measures as appropriate.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

D-f. Educate Residents on Water Saving Techniques. The City Administration continues to support education of residents regarding water conservation efforts, including through provision of information along with monthly utility bills.

Lead Agency	City Administration
Funding Source	Local
Current Status	Ongoing

Earthquake

EQ-a. Incorporate Earthquake Mitigation into Local Planning. The City Planning Department continues to incorporate planning related to earthquakes, including as part of the 2016 update to the city comprehensive plan.



Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

EQ-b. Map and Assess Community Vulnerability to Seismic Hazards. The City Planning Department continues to map and assess vulnerability to seismic hazards, including as part of the 2016 update of the city critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

EQ-c. Conduct Inspections of Building Safety. The City Building Department continues to conduct inspections related to building safety as required by City building codes.

Lead Agency	City Building Dept.
Funding Source	Local
Current Status	Ongoing

EQ-d. Protect Critical Facilities and Infrastructure. The City Building Department continues to protect critical facilities and infrastructure, including through requiring the local middle school to be constructed with the lowest floor more than 2.5 feet above the FEMA base flood elevation.

Lead Agency	City Building Dept.
Funding Source	Local
Current Status	Ongoing

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

FL-a. Incorporate Flood Mitigation in Local Planning. The City Planning Department continues to incorporate flood mitigation into local planning, including as part of the 2016 update of the city critical areas ordinance, the 2019 adoption of new FEMA flood insurance rate maps, and updates to the County comprehensive flood hazard management plan currently underway.

Lead Agency	City Planning Dept.
Funding Source	Local



Current Status	Ongoing
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FL-b. Form Partnerships to Support Floodplain Management. The City Planning and Public Works Departments continue to work to form partnerships that support floodplain management, including working closely with County long-range and current planning divisions and the County Public Works River and Flood Division.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-c. Limit or Restrict Development in Floodplain Areas. The City Planning, Building and Public Works Departments continue to limit development in floodplain areas through amendment and enforcement of City critical areas ordinance regulations, national flood insurance program requirements, and city building codes.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-d. Improve Stormwater Management Planning. The City Planning Department continues to improve planning, regulation and enforcement related to stormwater management, including through 2016 updates to the City comprehensive plan and the 2016 adoption of the state stormwater management manual for Western Washington.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

FL-e. Improve Flood Risk Assessment. The City Public Works Department continues to assess risks related to flooding, including through participation in the federal RISK Map assessment efforts.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

FL-f. Join or Improve Compliance with NFIP. The City continues to participate in the National Flood Insurance Program (NFIP). The City Planning, Building and Public Works Departments



continue to work to improve compliance with the NFIP, including through adoption of 2019 amendments to the City's NFIP ordinance that included updated flood insurance rate maps.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

FL-g. Manage the Floodplain Beyond Minimum Requirements. The City Planning and Building Departments continue to manage floodplains beyond minimum requirements, including through amendment of critical areas and floodplain management regulations that require extra elevation of critical facilities and prohibit the placement of fill within floodplains except under certain conditions.

Lead Agency	City Planning and Building Depts.
Funding Source	Local
Current Status	Ongoing

FL-h. Establish Local Funding Mechanisms for Flood Mitigation. The County Flood Control Zone District continues to make locally generated district funds available for local projects, including the purchase of open space areas located in designated floodways adjacent to Nooksack.

Lead Agency	County Flood Control Zone District
Funding Source	County
Current Status	Ongoing

FL-i. Improve Stormwater Drainage System Capacity. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual system upgrades and maintenance projects.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

FL-j. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual maintenance projects, such as inspection and clearing of stormwater conveyance systems.

Lead Agency	City Public Works Dept.
Funding Source	Local



Current Status	Ongoing
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FL-k. Preserve Floodplains as Open Space. The City Planning Department continues to work to preserve floodplains as open space, including through the recording of restrictive covenants required in conjunction with approved subdivisions.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing; Bi-annual

Landslide/erosion

No actions ongoing, discontinued, or completed for this hazard.

Landslide Subsidence

SU-a. Map and Assess Vulnerability to Subsidence. The City Planning Department continues to map and assess vulnerability to subsidence, including through 2016 updates to the City critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

SU-b. Manage Development in High-Risk Areas. The City Building Department continues to manage development in high-risk areas, including through required geologically hazardous area site assessment reports.

Lead Agency	City Building Dept.
Funding Source	Local
Current Status	Ongoing

Lightening

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

SW-a. Protect Power Lines and Infrastructure. The City Public Works Department continues to work to protect power lines and infrastructure through as-needed inspections following major



wind events and coordination with Puget Sound Energy.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

SW-b. Retrofit Public Buildings and Critical Facilities. The City Public Works Department continues to work to protect public buildings and infrastructure, including through undergrounding of power lines and provision of back-up power generation at critical facilities.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

No actions ongoing, discontinued, or completed for this hazard.

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes

WW-a. Protect Buildings and Infrastructure. The City Public Works Department continues to work to protect public buildings and infrastructure from severe winter storms, including through replacing and upgrading all City water meters to increase system resiliency.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

WW-b. Protect Power Lines. The City Public Works Department continues to work to protect power lines through as-needed inspections following major winter storm events and coordination with Puget Sound Energy.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing



WW-c. Reduce Impacts to Roadways. The City Public Works Department continues to work to reduce impacts to roadways, including through implementation of road closures during major freeze/thaw events.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Ongoing

Multiple Hazards

MU-a. Assess Community Risk. The City Planning and Public Works Departments continue to assess risks to the public from natural hazards, including through review of repetitive loss properties and review and adoption of updated hazard maps.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-b. Map Community Risk. The City Planning Department continues to work to map natural hazard areas and assess the risks associated with such areas, including through the 2016 update of the City's critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-c. Prevent Development in Hazard Areas. The City Building and Planning Departments continue to prevent development in hazard areas, including through enforcement of floodway, steep slopes and erosion hazard area regulations.

Lead Agency	City Building and Planning Depts.
Funding Source	Local
Current Status	Ongoing

MU-d. Adopt Development Regulations in Hazard Areas. The City Building and Planning Departments continue to work to adopt regulations addressing hazard areas, including through the 2016 update to the City's critical areas ordinance and the 2019 adoption of updated FEMA flood insurance rate maps and National Flood Insurance Program ordinance.

Lead Agency	City Building and Planning Depts.
Funding Source	Local



Current Status	Ongoing
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MU-e. Limit Density in Hazard Areas. The City Planning Department continues to work to limit density in hazard areas, including through adoption of floodway regulations and establishment of low-density zones in hazard areas, such as Open Space/Agriculture.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-f. Integrate Mitigation into Local Planning. The City Planning Department continues to integrate mitigation into local planning, including through establishment and enforcement of mitigation requirements under the City's critical areas regulations.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-g. Strengthen Land Use Regulations. The City Planning Department continues to work to strengthen local land use regulations, including through the 2016 update of the City's critical areas ordinance and 2019 updates to the City's National Flood Insurance Program ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local
Current Status	Ongoing

MU-h. Monitor Mitigation Plan Implementation. The City Planning and Public Works Departments continue to monitor implementation of the Natural Hazards Mitigation Plan through the required annual review process.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-i. Protect Structures. The City Building and Public Works Departments continue to work to protect structures within the City through enforcement of local building codes and critical areas regulations.



Lead Agency	City Building and Public Works Depts.
Funding Source	Local
Current Status	Ongoing

MU-j. Protect Infrastructure and Critical Facilities. The City Public Works Department continues to work to protect infrastructure and critical facilities, including through regular inspections, annual maintenance projects and capital improvement projects, such as elevating critical facilities above minimum standards.

Lead Agency	Public Works Dept.
Funding Source	Local
Current Status	Ongoing

MU-k. Increase Hazard Education and Risk Awareness. The City Public Works Department continues to work to increase hazard education and risk awareness, including through informational materials sent out with monthly utility bills.

Lead Agency	Public Works Dept.
Funding Source	Local
Current Status	Ongoing



Nooksack 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Nooksack-Specific Hazard Mitigation Goals

Nooksack supports the above county-wide goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Nooksack considered mitigation options related to earthquakes, drought, land subsidence, winter storms, severe wind, and erosion, especially those related to flooding, because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Nooksack. Some options have already been implemented or are ongoing in Nooksack, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Nooksack has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. Nooksack is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be



used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Nooksack Identified Mitigation Actions 2021-2025

City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	G-a. Ongoing -- Adopt and enforce building codes. This applies to earthquakes, flooding, winter storms/freezes, and severe winds. The City Planning, Building and Public Works Departments continue to adopt and enforce building codes and development regulations that address natural hazards mitigation.	1,5	Nooksack Planning, Building and Public Works		O		
Hazard Specific (Reference: Whatcom County Mitigation Ideas)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee Failures (See: Flooding)	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
Droughts/Heat Waves	D-a. Ongoing -- Assess Vulnerability to Drought Risk. The City Planning Department continues to assess risks related to drought, including as part of the 2016 update to the City's critical areas ordinance.	1, 2	City Planning Dept		O		
	D-b. Ongoing -- Monitor Drought Conditions. The City Public Works Department continues to monitor drought conditions on annual basis and implements water-related mitigation strategies as appropriate.	1, 2	City Public Works Dept.		O		
	D-c. Ongoing -- Monitor Water Supply. The City Public Works Department continues to monitor the public water supply and implement water conservation strategies as appropriate.	1, 2	City Public Works Dept.		O		
	D-d. Ongoing -- Plan for Drought. The City Planning Department continues to plan for droughts, including as part of the 2016 update of the city comprehensive land use plan.	1	City Planning Dept		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	D-e. Ongoing -- Require Water Conservation During Drought Conditions. The City Public Works Department continues to monitor drought conditions and implement water conservation measures as appropriate.	1, 5	City Public Works Dept.		O		
	D-f. Ongoing -- Educate Residents on Water Saving Techniques. The City Administration continues to support education of residents regarding water conservation efforts, including through provision of information along with monthly utility bills.	2, 5	City Administration		O		
Volcano	VOL-1 Lahar Early Warning System The USGS has designed a number of systems that automatically detect lahars as they descend neighboring valleys. These systems then automatically trigger various types of early warning systems, such as sirens or telephone-based warning systems.	1, 2, 5	Whatcom County Fire District 1, Everson Police Department, Whatcom County Department of Emergency Management, Whatcom County	L	L	Local sources, and state and federal grants	Unknow n

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
			Public Works				
Earthquakes	EQ-a. Ongoing -- Incorporate Earthquake Mitigation into Local Planning. The City Planning Department continues to incorporate planning related to earthquakes, including as part of the 2016 update to the city comprehensive plan.	1	City Planning Dept	O			
	EQ-b. Ongoing -- Map and Assess Community Vulnerability to Seismic Hazards. The City Planning Department continues to map and assess vulnerability to seismic hazards, including as part of the 2016 update of the city critical areas ordinance.	1,2	City Planning Dept	O			
	EQ-c. Ongoing -- Conduct Inspections of Building Safety. The City Building Department continues to conduct inspections related to building safety as required by City building codes.	1	City Building Dept	O			
	EQ-d. Ongoing -- Protect Critical Facilities	1,5	City Building Dept	O			

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	and Infrastructure. The City Building Department continues to protect critical facilities and infrastructure, including through requiring the local middle school to be constructed with the lowest floor more than 2.5 feet above the FEMA base flood elevation.						
	EQ-1 Retrofit City Hall Nooksack City Hall would suffer significant damage in the event of an earthquake. This facility should be retrofitted, replaced, or relocated so that it can survive a 6.0 magnitude or greater earthquake event.	1, 5	Nooksack City Council, Whatcom County Building Department, Whatcom County Fire District 1 Commissioners	L	L	Local sources, and state and federal grants	\$1 Million
Extreme Temperatures	ET-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Flooding	FL-a. Ongoing -- Incorporate Flood Mitigation in Local Planning. The City Planning Department continues to incorporate flood mitigation into local	1	City Planning Dept.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	planning, including as part of the 2016 update of the city critical areas ordinance, the 2019 adoption of new FEMA flood insurance rate maps, and updates to the County comprehensive flood hazard management plan currently underway.						
	FL-b. Ongoing -- Form Partnerships to Support Floodplain Management. The City Planning and Public Works Departments continue to work to form partnerships that support floodplain management, including working closely with County long-range and current planning divisions and the County Public Works River and Flood Division.	4	City Planning and Public Works Dept.		O		
	FL-c. Ongoing -- Limit or Restrict Development in Floodplain Areas. The City Planning, Building and Public Works Departments continue to limit development in floodplain areas through amendment and enforcement of City critical areas ordinance regulations, national flood insurance program requirements, and city building codes.	1,3	City Planning, Building, and Public Works Dept		O		
	FL-d. Ongoing -- Improve Stormwater	1,5	City Planning		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Management Planning. The City Planning Department continues to improve planning, regulation and enforcement related to stormwater management, including through 2016 updates to the City comprehensive plan and the 2016 adoption of the state stormwater management manual for Western Washington.		Dept.				
	FL-e. Ongoing -- Improve Flood Risk Assessment. The City Public Works Department continues to assess risks related to flooding, including through participation in the federal RISK Map assessment efforts.	1,2	City Public Works Dept		O		
	FL-f. Ongoing -- Join or Improve Compliance with NFIP. The City continues to participate in the National Flood Insurance Program (NFIP). The City Planning, Building and Public Works Departments continue to work to improve compliance with the NFIP, including through adoption of 2019 amendments to the City's NFIP ordinance that included updated flood insurance rate maps.	1,4	City Planning, Building, and Public Works Dept		O		
	FL-g. Ongoing -- Manage the Floodplain	1,3,5	City Planning,		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Beyond Minimum Requirements. The City Planning and Building Departments continue to manage floodplains beyond minimum requirements, including through amendment of critical areas and floodplain management regulations that require extra elevation of critical facilities and prohibit the placement of fill within floodplains except under certain conditions.		Building Dept				
	FL-h. Ongoing -- Establish Local Funding Mechanisms for Flood Mitigation. The County Flood Control Zone District continues to make locally generated district funds available for local projects, including the purchase of open space areas located in designated floodways adjacent to Nooksack.	1	County Flood Control Zone District		O		
	FL-i. Ongoing -- Improve Stormwater Drainage System Capacity. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual system upgrades and maintenance projects.	1,5	City Public Works Dept.		O		
	FL-j. Ongoing -- Conduct Regular	1,5	City Public Works		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Maintenance for Drainage Systems and Flood Control Structures. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual maintenance projects, such as inspection and clearing of stormwater conveyance systems.		Dept.				
	FL-k. Ongoing -- Preserve Floodplains as Open Space. The City Planning Department continues to work to preserve floodplains as open space, including through the recording of restrictive covenants required in conjunction with approved subdivisions.	1,3	City Planning Dept.		O		
	FL-1 Mitigate Nooksack Slough. Remove sediment deposited from the Sumas River that blocks the section of the Nooksack Slough Between Gillies Road and the Sumas River	1, 3, 4	Nooksack City Council. Whatcom County	H	M	Local sources, and state and federal grants	\$300,000
Landslide/ Erosion	ER-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
Land Subsidence	SU-a. Ongoing -- Map and Assess Vulnerability to Subsidence. The City Planning Department continues to map and assess vulnerability to subsidence, including through 2016 updates to the City critical areas ordinance.	1,2	City Planning Dept.		O		
	SU-b. Ongoing -- Manage Development in High-Risk Areas. The City Building Department continues to manage development in high-risk areas, including through required geologically hazardous area site assessment reports.	1	City Building Dept.		O		
Lightning	L-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Severe Storms	SS-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Severe Wind	SW-a. Ongoing -- Protect Power Lines and Infrastructure. The City Public Works	1,5	City Public Works Dept.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Department continues to work to protect power lines and infrastructure through as-needed inspections following major wind events and coordination with Puget Sound Energy.						
	<i>SW-b. Retrofit Public Buildings and Critical Facilities.</i> The City Public Works Department continues to work to protect public buildings and infrastructure, including through undergrounding of power lines and provision of back-up power generation at critical facilities.	1,5	City Public Works Dept.		O		
Tornadoes	T-1 No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Tsunami	NA						
Wildfires	WF-1 No actions are currently being considered/All mitigation actions are						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	ongoing, discontinued, or complete.						
Winter Storms/ Freezes (Severe Winter Weather)	WW-a. Ongoing -- Protect Buildings and Infrastructure. The City Public Works Department continues to work to protect public buildings and infrastructure from severe winter storms, including through replacing and upgrading all City water meters to increase system resiliency.	1,5	City Public Works		O		
	WW-b. Ongoing -- Protect Power Lines. The City Public Works Department continues to work to protect power lines through as-needed inspections following major winter storm events and coordination with Puget Sound Energy.	1,5	City Public Works		O		
	WW-c. Ongoing -- Reduce Impacts to Roadways. The City Public Works Department continues to work to reduce impacts to roadways, including through implementation of road closures during major freeze/thaw events.	1,5	City Public Works		O		
Multi Hazard	MU-a. Ongoing -- Assess Community Risk. The City Planning and Public Works	1,2	City Planning Public Works		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Departments continue to assess risks to the public from natural hazards, including through review of repetitive loss properties and review and adoption of updated hazard maps.		Depts.				
	MU-b. Ongoing -- Map Community Risk. The City Planning Department continues to work to map natural hazard areas and assess the risks associated with such areas, including through the 2016 update of the City's critical areas ordinance.	1,2	City Planning Dept.		O		
	MU-c. Ongoing -- Prevent Development in Hazard Areas. The City Building and Planning Departments continue to prevent development in hazard areas, including through enforcement of floodway, steep slopes and erosion hazard area regulations.	1,3	City Building and Planning Depts.		O		
	MU-d. Ongoing -- Adopt Development Regulations in Hazard Areas. The City Building and Planning Departments continue to work to adopt regulations addressing hazard areas, including through the 2016 update to the City's critical areas ordinance	1	City Building and Planning Depts.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	and the 2019 adoption of updated FEMA flood insurance rate maps and National Flood Insurance Program ordinance.						
	MU-e. Ongoing -- Limit Density in Hazard Areas. The City Planning Department continues to work to limit density in hazard areas, including through adoption of floodway regulations and establishment of low-density zones in hazard areas, such as Open Space/Agriculture.	1	City Planning Dept.		O		
	MU-f. Ongoing -- Integrate Mitigation into Local Planning. The City Planning Department continues to integrate mitigation into local planning, including through establishment and enforcement of mitigation requirements under the City's critical areas regulations.	1,4	City Planning Dept.		O		
	MU-g. Ongoing -- Strengthen Land Use Regulations. The City Planning Department continues to work to strengthen local land use regulations, including through the 2016 update of the City's critical areas ordinance and 2019 updates to the City's National Flood	1,4	City Planning Dept.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Insurance Program ordinance.						
	MU-h. Ongoing -- Monitor Mitigation Plan Implementation. The City Planning and Public Works Departments continue to monitor implementation of the Natural Hazards Mitigation Plan through the required annual review process.	1	City Planning and Public Works Depts.		O		
	MU-i. Ongoing -- Protect Structures. The City Building and Public Works Departments continue to work to protect structures within the City through enforcement of local building codes and critical areas regulations.	1	City Building and Public Works Depts.		O		
	MU-j. Ongoing -- Protect Infrastructure and Critical Facilities. The City Public Works Department continues to work to protect infrastructure and critical facilities, including through regular inspections, annual maintenance projects and capital improvement projects, such as elevating critical facilities above minimum standards.	1,5	Public Works Dept.		O		
	MU-k. Ongoing -- Increase Hazard Education and Risk Awareness. The City Public Works	2	Public Works Dept.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Department continues to work to increase hazard education and risk awareness, including through informational materials sent out with monthly utility bills.						
	MU-1 Tone Radio Based Early Warning System Tone Radios turn on when triggered by a central transmitter and then information or instructions are announced over the radio. Such a system is currently used for various types of weather radios, for tornados and severe storms hazard areas. A similar system could be put into place for warning of flooding, lahars, and other related natural hazards.	1, 2, 5	Whatcom County Department of Emergency Management, NOAA Radio		L	Local sources, and state and federal grants	
Advanced Mitigation Projects (Dream List)	Earthquake Early Warning System Such a system could warn residence of an impending earthquake. Technology doesn't currently exist for such a system, but will likely be possible in the future.	1, 2, 5	Federal, State, County, and local entities	L	L	Local sources, and state and federal grants	Unknown

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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City of Nooksack IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimat ed Cost
Hazard	Action Items						
	Mitigate against 100-year flood event or volcanic lahar	1, 2, 5	DEM	L	L	Local sources, and state and federal grants	Unknow n
	Cell Phone-Based Early Warning System A computerized early warning system that automatically dials each landline telephone number within a specified area, and play a recorded message when the phone is answered is currently provided to the City by the Whatcom County Sheriff's Office Division of Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally licensed COG would help to address a variety of natural and manmade problems.	1, 2, 5	WCDEM/LFD	L	L	Local sources, and state and federal grants	Unknow n

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
---	---	--	---



Nooksack Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Nooksack Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
GENERAL: ALL HAZARDS						
<i>G-a. Adopt and enforce building codes.</i>						
<i>Add New Action Items if Applicable</i>						
DAM/LEEVE FAILURES						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						
<i>D-a. Assess Vulnerability to Drought Risk.</i>						
<i>D-b. Monitor Drought Conditions.</i>						
<i>D-c. Monitor Water Supply.</i>						
<i>D-d. Plan for Drought.</i>						
<i>D-e. Require Water Conservation During Drought Conditions.</i>						
<i>D-f. Educate Residents on Water Saving Techniques.</i>						
<i>Add New Action Items if Applicable</i>						
EARTHQUAKES						
<i>EQ-a. Incorporate Earthquake Mitigation into Local Planning.</i>						
<i>EQ-b. Map and Assess Community Vulnerability to Seismic Hazards.</i>						
<i>EQ-c. Conduct Inspections of Building Safety.</i>						
<i>EQ-d. Protect Critical Facilities and</i>						



City of Nooksack Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Infrastructure.						
EQ-1 Retrofit City Hall						
Add New Action Items if Applicable						
VOLCANO						
VOL-1 Lahar Early Warning System						
Add New Action Items if Applicable						
FLOODING						
FL-a. Incorporate Flood Mitigation in Local Planning.						
FL-b. Form Partnerships to Support Floodplain Management.						
FL-c. Limit or Restrict Development in Floodplain Areas.						
FL-d. Improve Stormwater Management Planning.						
FL-e. Improve Flood Risk Assessment.						
FL-f. Join or Improve Compliance with NFIP.						
FL-g. Manage the Floodplain Beyond Minimum Requirements.						
FL-h. Establish Local Funding Mechanisms for Flood Mitigation.						
FL-i. Improve Stormwater Drainage System Capacity						
FL-j. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures.						



City of Nooksack Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
FL-k. Preserve Floodplains as Open Space.						
FL-1 Mitigate Nooksack Slough						
Add New Action Items if Applicable						
LANDSLIDES/EROSION						
Add New Action Items if Applicable						
LAND SUBSIDENCE						
SU-a. Map and Assess Vulnerability to Subsidence.						
SU-b. Manage Development in High-Risk Areas.						
Add New Action Items if Applicable						
TORNADOES						
Add New Action Items if Applicable						
TSUNAMI						
Add New Action Items if Applicable						
WILDFIRES						
Add New Action Items if Applicable						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WW-a. Protect Buildings and Infrastructure.						
WW-b. Protect Power Lines.						
WW-c. Reduce Impacts to Roadways.						
Add New Action Items if Applicable						



City of Nooksack Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
EXTREME TEMPERATURES						
<i>Add New Action Items if Applicable</i>						
LANDSLIDE						
<i>Add New Action Items if Applicable</i>						
LIGHTNING						
<i>Add New Action Items if Applicable</i>						
SEVERE WIND						
<i>SW-a. Protect Power Lines and Infrastructure.</i>						
<i>SW-b. Retrofit Public Buildings and Critical Facilities.</i>						
<i>Add New Action Items if Applicable</i>						
MULTIPLE HAZARDS						
<i>MU-a. Assess Community Risk.</i>						
<i>MU-b. Map Community Risk.</i>						
<i>MU-c. Prevent Development in Hazard Areas.</i>						
<i>MU-d. Adopt Development Regulations in Hazard Areas.</i>						
<i>MU-e. Limit Density in Hazard Areas.</i>						
<i>MU-f. Integrate Mitigation into Local Planning.</i>						
<i>MU-g. Strengthen Land Use Regulations.</i>						
<i>MU-h. Monitor Mitigation Plan Implementation.</i>						



City of Nooksack Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
MU-i. Protect Structures.						
MU-j. Protect Infrastructure and Critical Facilities.						
MU-k. Increase Hazard Education and Risk Awareness.						
MU-1 Tone Radio Based Early Warning System						
Add New Action Items if Applicable						



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PORT OF BELLINGHAM

Contact Information

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Approving Authority

Executive Director Rob Fix & Port Commission
1801 Roeder Avenue Bellingham, WA 98225
(360) 676-2500

The Port of Bellingham is a Washington State special purpose municipal corporation serving all of Whatcom County. It is a unique organization that makes significant contributions to the local community through leveraging its resources by direct participation in revenue-earning lines of business, as well as by capitalizing on its strategic assets through special public agency powers. Special districts have a vested interest in reducing threat and hazard impacts, particularly if they provide services critical to recovery efforts.

By combining expertise in both the business and government sectors, the Port has a role in job preservation and job creation, as well as a role in the operation of transportation facilities for seaports and airports. This combination is distinct from that of either the private sector or other government entities.

The Port of Bellingham's mission is:

"Promote sustainable economic development, optimize transportation gateways, and manage publicly owned land and facilities to benefit Whatcom County."

Planning Process

The Port ensures that local and state building codes and land use laws are followed in a fair and equitable manner in all Port projects. Our Environmental and Planning Services division works closely with our Facilities and Engineering divisions to plan new developments with a focus on mitigating risk wherever practicable. One example is a former Georgia Pacific Mill property that the Port acquired in 2005. Demolition and cleanup of the 36-acre waterfront brown field was completed with the fronting waterway dredged of contaminated soils. Meanwhile the upland property was raised several feet to prepare it for further development and to mitigate against possible tsunami and sea-level rise.

The Port is a member of the Whatcom County Emergency Management Council and supports the Whatcom County Sheriff's Office Division of Emergency Management (WCSO-DEM) with annual funding based on the budget needs of the Division. The Port supports and participates in



the Division’s on-going public education, planning, training, and exercise program, as appropriate, including presentations about various risks within the Port, including earthquake, tsunami, and flood risk and examination of other various natural hazard risks and risk mitigation models. This coordination allows the Port to collaborate with other jurisdictions on natural hazard mitigation efforts and provides additional outlets to reach visitors to Port facilities and reach County residents that may use Port asset areas.

Port properties and assets are located within the jurisdictional boundaries of the City of Bellingham, the City of Blaine, the City of Sumas, and unincorporated Whatcom County. As such, the Port is subject to the community plans and policies of that guide and influence land use, land development and population growth within each of these jurisdictions. Such existing plans and policies include local building codes, comprehensive plans, zoning ordinances and technical reports or studies. Land use and comprehensive and strategic plans are updated regularly and can adapt easily to changing conditions and needs. This Natural Hazard Mitigation Plan will be used to identify potential risks to Port properties and inform future development and mitigation efforts. It will also be used to ensure that Port tenants are aware of these natural hazard risks.

The 2021 update of the Port’s section of this Plan was conducted through a collaborative effort by the Port’s Emergency Management, Environmental and Planning Services, Engineering, and Facilities/Maintenance functions. This team reviewed and updated the Plan to reflect progress against, or completion of, Mitigation Actions since the last Plan update, as appropriate. It also evaluated potential future Mitigation Actions against updated natural hazard risk information, resulting in a list of Mitigation Actions for the period 2021-2025 that reflects jurisdiction risks, authorities, and priorities.

The Port’s section of this Plan update was also informed by participation in the Natural Hazard Mitigation Plan update process facilitated by the Whatcom County Sheriff’s Office Division of Emergency Management, which included a series of meetings of representatives from all Whatcom County jurisdictions represented in this Plan. Throughout the Plan update process, the WCSO-DEM’s website (whatcomready.org) maintained a virtual town hall related to the Natural Hazard Mitigation Plan, which allowed residents to leave feedback regarding the Port’s portion of the plan, as well as read the plan’s current iteration in its entirety. Port-specific comments were shared with the Port and incorporated into this Plan update. This collaborative county-wide update process facilitated the sharing of best practices and identification of multi-jurisdiction mitigation opportunities by all Whatcom County jurisdictions.

Key Contributor List

- Scott McCreery, Emergency Management/Security Officer



- Kurt Baumgarten, Environmental Planner
- Brian Gouran, Environmental & Planning Services Director
- Greg Nicoll, Senior Engineer
- Alex Hildreth, Maintenance Manager
- Alice Cords, Environmental Specialist
- Adrienne Hegedus, Environmental Specialist
- Dave Warter, Marine Terminals and Emergency Services Manager

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the Port of Bellingham will be used as a tool when creating or updating Port planning, strategic investment, and capital improvement documents and plans.

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for the Port of Bellingham

The WCSO-DEM is responsible for facilitating annual review of the Plan per the process and schedule reflected in Section 4 of this Plan. The Port participates in the WCSO-DEM's annual Plan maintenance process and in public meetings called as part of this process. Information regarding changes to the Plan as part of this annual review process are shared on the Port's social media outlets and through the WCSO-DEM website (whatcomready.org), as appropriate.

During the process of adopting and updating the Natural Hazard Mitigation Plan, the Bellingham Port Commission and Executive Director are provided with an Executive Summary of the plan and the Port's role in the plan. An Action Memo that goes to the Executive Director and Commission also outlines the history of the plan and why formal adoption is recommended. The Commission agenda, along with the Action Memo are published on the Port's website. The adoption process is recorded and is available for public review.



Public Outreach and Education

Natural Hazard education and outreach capabilities undertaken by the Port of Bellingham are typically done in conjunction with our local jurisdiction partners in the jurisdictions in which Port facilities are located, i.e., the City of Bellingham, City of Blaine, City of Sumas, and Whatcom County, and other community partners. include ongoing programs that local-to-federal government, nonprofit, and other organizations provide to communities which may be leveraged to implement hazard mitigation actions and build community resilience.

Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	N/A
Ongoing public education or information programs	Yes, 2019	Bellingham Tsunami Evacuation Walk Time maps and associated outreach.
School-related programs for natural hazard safety	No	N/A
Public education or information program	No	N/A
StormReady certification	No	N/A
Firewise Community certification	No	N/A
Public-Private Partnership initiatives addressing disaster-related issues	No	N/A
Other	No	N/A



Presence of Hazards and their Impacts in the Port of Bellingham

The Port of Bellingham includes infrastructure and facilities that are critical to maritime, air, and ground transportation between Whatcom County, the region, North America, and the world. These Port resources and critical services have not been impacted by natural hazards in the past.

Shoreline erosion mitigation was required in the area of the Fairhaven Station Multi-Modal Facility because of winter storm-induced coastal flooding during the winter of 2015-2016. These impacts did not disrupt the provision of critical transportation services by the Port.

Refer to the City of Bellingham, City of Blaine, City of Sumas, and Whatcom County jurisdictional Overviews regarding community change and natural hazard interface impacting Port facilities in these jurisdictions.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of the Port of Bellingham’s total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	86.4%	High	Subject to the intensity of seismic activity. The location of Critical Port Facilities on seismically sensitive soils and coastal fill make these community-wide transportation infrastructure assets vulnerable to earthquake hazards.
	Liquefaction	25.5%	High	Subject to the intensity of seismic activity. The location of Bellingham International Airport on seismically sensitive ancient lakebed soils and other Critical Port Facilities on coastal fill material make these community-wide transportation infrastructure assets vulnerable to earthquake hazards.
	Landslide	5.9%	Moderate	Breakwater structures that protect Squalicum Harbor and Blaine Harbor from heavy marine weather are subject to seismically induced landslide damage.
	Volcano	33.9%	Low	Depending on wind direction, ash fall could significantly impact Port operations especially at Bellingham International Airport over a period of days to weeks.
	Tsunami	1.2%	High	The Bellingham Cruise Terminal, Fairhaven Station Multi-Modal Transportation Facility, Bellingham Shipping Terminal, Squalicum Harbor, and Blaine Harbor are all located within the modeled tsunami inundation zone. Breakwater structures that protect Squalicum Harbor and Blaine Harbor from heavy marine weather are subject to tsunami-induced landslide/erosion damage.
	Mine Hazards	0%	None	While abandoned mine workings may be located beneath some Port properties, they are believed to be at depths that limit their potential risk to Port facilities and services.
⚡	Flooding	4.8%	Mod	The Port's Sumas International Cargo Terminal



				is subject to Nooksack River flooding events. All Port of Bellingham facilities on Bellingham Bay and Blaine Harbor are subject to coastal flooding risk, with increasing risk associated with sea level rise
Meteorological	Wildfire	12.3%	Low	Wildfire risk is generally limited to the Bellingham International Airport and mitigated by buffers between surrounding forested areas and critical airport infrastructure; however, wildfire in these surrounding areas could impact general Port operations.

Severity Scale: **None** = no impact to port function

Low = minor degradation of port functions, not widespread

Moderate = moderate degradation over multiple weeks or widespread

High = degradation or loss over many weeks, widespread



Natural Hazard Maps

For natural hazards present within the Port of Bellingham, see the natural hazard maps for the following jurisdictions:

- Whatcom County
- City of Bellingham
- City of Blaine
- City of Sumas



Port of Bellingham Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Bellingham Cruise Terminal	EF	2	355 Harris Ave. Bellingham, WA	\$22,823,000	BCT serves as the southern terminus of the Alaska Marine Highway System and is a critical transportation hub for personnel and goods between WA and AK. In the event that highways are damaged or unavailable, BCT, along with BST, provide the only facilities in Whatcom County capable of accommodating larger vessels and barges.
Bellingham International Airport	EF	2	4255 Mitchell Way Bellingham, WA	\$130,820,000	BLI is the only commercial aviation terminal located between Everett, WA and Vancouver, B.C.
Bellingham Shipping Terminal #1 & #2	EF	1	629 Cornwall Bellingham, WA	\$49,068,000	While nominally a bulk and break bulk shipping terminal, BST could be used, along with BCT, to accommodate larger vessels and barges in the event that I-5 was damaged or unavailable.
Blaine Harbor	EF	2	235 Marine Drive Blaine, WA	\$49,133,000	Marine harbor serving recreational and



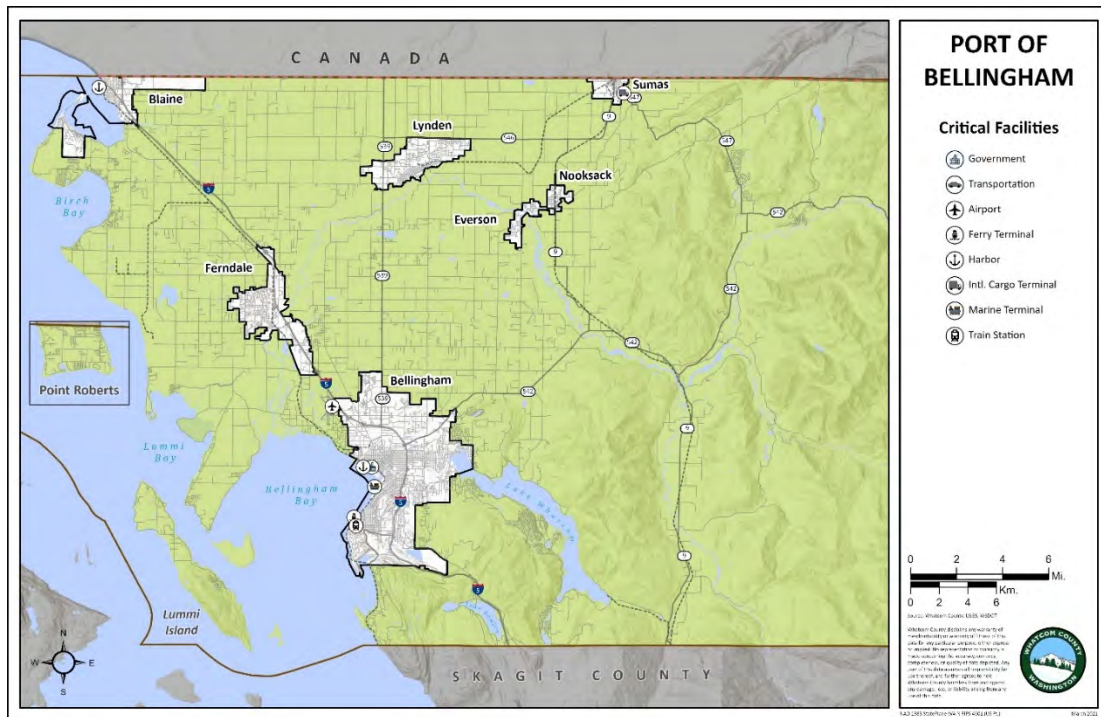
					commercial fishing vessels.
Fairhaven Station - Multi-Modal Facility	EF	2	401 Harris Ave. Bellingham, WA	\$33,917,000	Rail and bus transportation hub.
Harbor Center Building	EF	1	1801 Roeder Ave. Bellingham, WA	\$11,668,000	Building housing Port administrative functions.
Squalicum Harbor	EF	2	722 Coho Way Bellingham, WA	\$95,045,000	Marine harbor serving recreational and commercial fishing vessels
Sumas International Cargo Terminal	EF	1	530 Front Street Sumas, WA	\$10,282,000	Rail and truck trans-load facility.

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

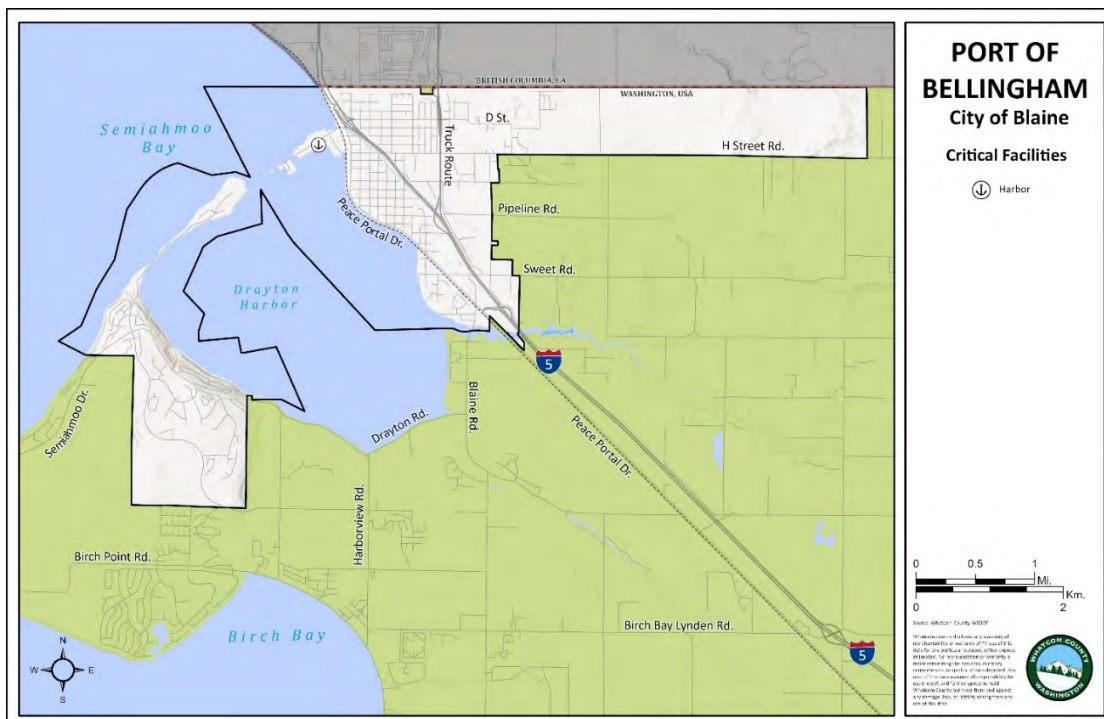
Significance to community function: 1=Moderate; 2= High; 3 =Very High



SECTION 3. JURISDICTION PROFILES AND MITIGATION STRATEGIES –PORT OF BELLINGHAM

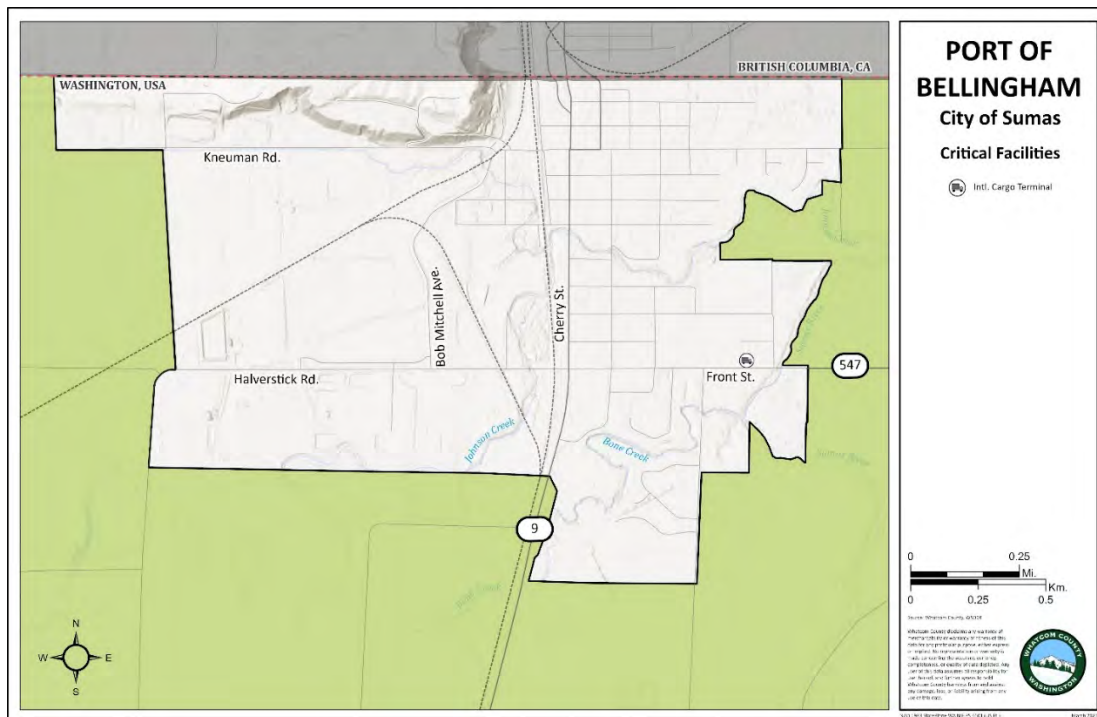


Map of critical facilities identified by the Port of Bellingham. Across Whatcom County, critical facilities fell into 6 categories. Facilities were categorized according to Port of Bellingham's critical facility table, including: government, airport, ferry terminal, harbor, marine terminal, and train station. Not all jurisdictions identified or included critical facilities in each category.

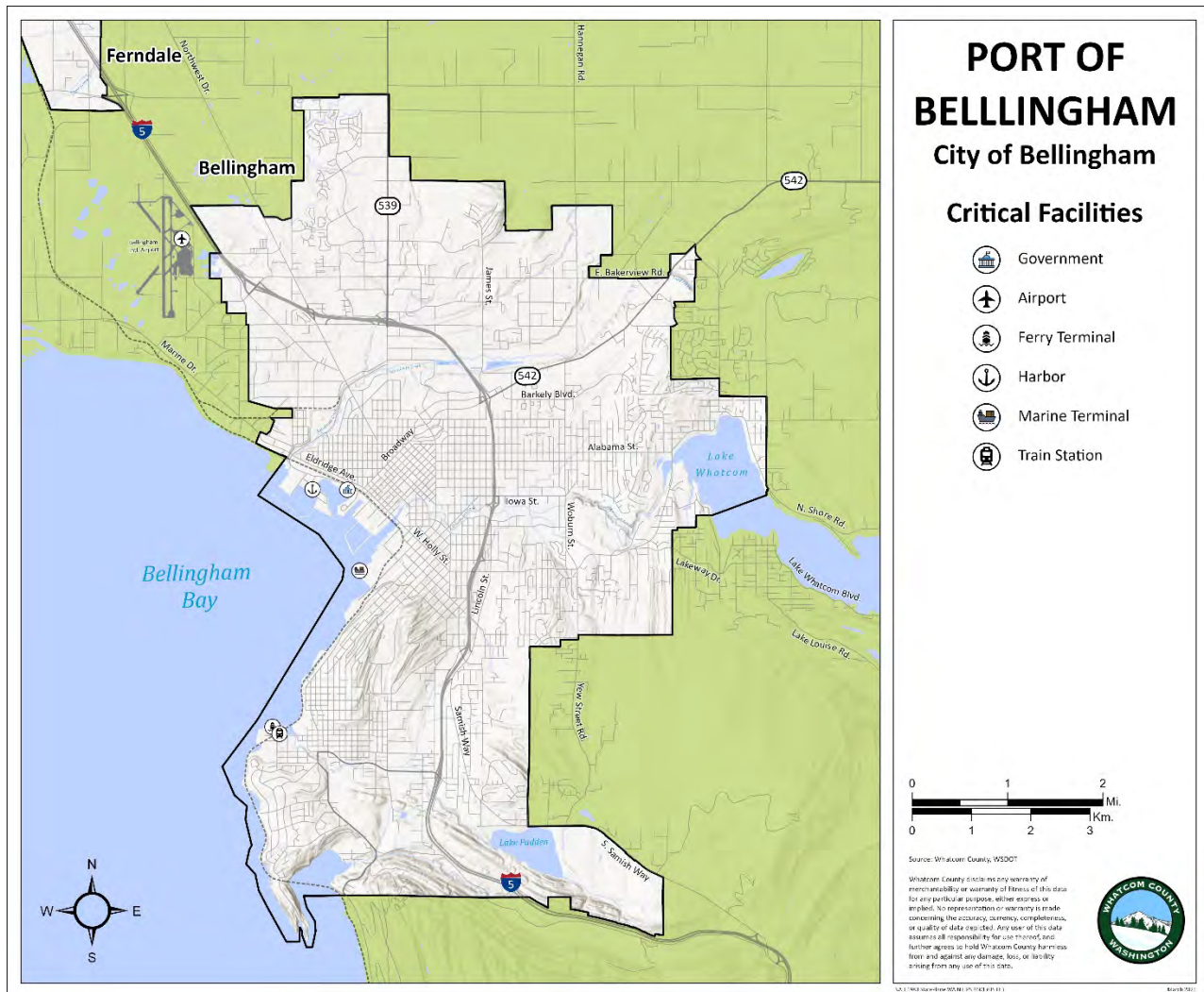




Location of critical facilities for the Port of Bellingham in Blaine.



Location of critical facilities for the Port of Bellingham in Sumas.



Location of critical facilities for the Port of Bellingham in the City of Bellingham.



Critical Facility Rankings for the Port of Bellingham

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding, and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Bellingham Cruise Terminal	EF - Transportation	2	1	0	0	1	0	1	1	0	0.93
Bellingham International Airport	EF - Transportation: Airport	2	1	1	0	0	0	0	0	0	0.43
Bellingham Shipping Terminal #1 & #2	EF - Transportation	1	1	1	0	1	0	0	0	0	0.43
Blaine Harbor	EF - Transportation	2	1	1	0	1	0	0	1	0	1
Fairhaven Station - Multi-Modal Facility	EF - Transportation	2	1	0	0	1	0	0	0	1	0.86
Harbor Center Building	EF – Transportation, Administrative	1	1	1	0	1	0	0	0	0	0.43
Squalicum Harbor	EF - Transportation	2	1	1	0	1	0	0	1	0	1
Sumas International Cargo Terminal	EF - Transportation	1	1	1	0	0	1	1	0	0	0.5

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

Port of Bellingham Exposure to Natural Hazards				
	Hazard Susceptibility	Asset County (% of Total)		Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Critical Facilities	
Geological Hazards	Earthquake, Shaking Intensity			
	MMI IV	7.7%	-	-
	MMI V	31.7%	12.5%	\$49 ¹
	MMI VI	29.6%	75%	\$343 ¹
	MMI VII	11.7%	-	-
	MMI VIII - IX	5.7%	12.5%	\$10 ¹
	TOTAL	86.4%	100%	\$402
	Liquefaction			
	Very Low to Low	14.6%	-	-
	Low to Moderate	6.5%	12.5%	\$131 ¹
	Moderate	-	-	-
	Moderate to High	4.4%	12.5%	\$10 ¹
	High	0.02%	50%	\$205 ¹
	TOTAL	25.5%	75%	\$346
	Landslide			
	Landslide Low	0.7%	-	-
	Landslide Moderate	1%	-	-



Hydrol	Landslide High	2.9%	-	-
	Fan Low	0.1%	-	-
	Fan Moderate	0.3%	-	-
	Fan High	0.8%	-	-
	Mine Hazard	0.1%	-	-
	TOTAL	5.9%	-	-
	Volcanic Eruption			
	Case 1 Debris Flows	1.6%	12.5% ²	\$10 ^{1/2}
	Case 2 Debris Flows	0.9%	-	-
	Case M Flows	2.9%	-	-
	Pyroclastic Flows, Lava Flows, and Ballistic Debris	5.8	-	-
	Lateral Blast Hazard Zone	22.7%	-	-
	TOTAL	33.9%	12.5%	\$10
	Tsunami, Inundation Zone			
	Low to Moderate Inundation Potential	0.3%	-	-
	Moderate to High Inundation Potential	0.3%	-	-
	High Inundation Potential	0.6%	75%	\$262 ¹
	TOTAL	1.2%	75%	\$262
	Flooding			
	100-year Flood	3.5%	12.5%	\$10 ¹



	<i>500-year Flood</i>	0.4%	-	-
	<i>Floodway</i>	0.9%	-	-
	<i>Undetermined (Zone D)</i>	52.1%	-	-
	TOTAL	4.8%	12.5%	\$10
Meteorological	Wildfire Zones			
	<i>Interface Very Low-Low Structure Density</i>	0.9%	-	-
	<i>Interface Medium-High Structure Density</i>	1.4%	25%	\$57 ¹
	<i>Intermix Very Low-Low Structure Density</i>	5.9%	-	-
	<i>Intermix Medium-High Structure Density</i>	4.1%	-	-
	TOTAL	12.3%	25%	\$57

¹Shows the assessed dollar value provided by the community in their critical facilities list. Does not include the appraised total value.

²Some critical facilities located in multiple hazard zone



Status of Port of Bellingham's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Tsunami

TSU-a. Map and Assess Vulnerability to Tsunami – In 2019, the Port of Bellingham, in conjunction with jurisdictional partner the City of Bellingham and the Washington Military Department Division of Emergency Management, the Washington Department of Natural Resources, and the National Oceanic and Atmospheric Administration, developed tsunami inundation models and Tsunami Evacuation Walk Time Maps for the City of Bellingham and Port properties within Bellingham.

Lead Entity	WDNR, City of Bellingham
Funding Source	State, Federal, Local
Current Status	Ongoing

TSU-b. Increase Public Awareness of Tsunami Hazard – In 2017, All Hazards Alert Broadcast (AHAB) Warning Sirens were installed on Port of Bellingham property at Squalicum Harbor at geographic coordinates 48.7559 N, 122.50193 W, and on City of Blaine property at geographic coordinates 48.99449 N, 122.7602850193 W, adjacent to Blaine Harbor. An additional AHAB Siren was installed on Port of Bellingham property adjacent to the Bellingham Cruise Terminal at geographic coordinates 48.720249 N, 122.513427 W, in 2020.

Lead Entity	WDNR, Whatcom County, City of Bellingham, Port of Bellingham
Funding Source	State, Federal, Local
Current Status	Ongoing

Flooding



No actions ongoing, discontinued, or completed for this hazard.

Winter Storms/Freezes

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

No actions ongoing, discontinued, or completed for this hazard.

Multiple Hazards

MU-a. Increase Hazard Education and Risk Awareness – The Whatcom County Sheriff’s Office Division of Emergency Management and City of Bellingham Office of Emergency Management have adopted use of the AlertSense messaging system to notify the public and the media of emergency events throughout Whatcom County, including Port of Bellingham facilities and tenants. AlertSense allows a pre-formatted message to be sent to an email address, to a mobile phone as a text message, and/or as a voice message to a landline or mobile phone number. Messages can be sent to all individuals who voluntarily register in the system (free of charge), or to targeted groups for specific geographic areas (i.e. cities, towns or communities).

Lead Entity	City of Bellingham, Whatcom County
Funding Source	Local
Current Status	Ongoing

MU-b. Protect Structures – This Mitigation Action generally relies on the relocation of structures outside hazard areas. This Mitigation Action is now considered infeasible and, as such, has been discontinued.

Lead Entity	N/A
Funding Source	
Current Status	Discontinued

Earthquake

EQ-a. Conduct Outreach to Builders, Architects, Engineers and Inspectors – The Port of Bellingham relies on the jurisdictions with code establishment and enforcement authority within which Port facilities are located to implement this Mitigation Action. As such, this Mitigation Action is not considered applicable to the Port and has been discontinued.

Lead Entity	N/A
Funding Source	
Current Status	Discontinued



EQ-c. Design all Critical Facilities and Infrastructure for design earthquake event – The port follows the International Building Code adopted by the county, which includes design for seismic hazard.

Lead Entity	Facilities/E&PS
Funding Source	Local, State and Federal
Current Status	Ongoing

Landslide/Erosion

ER-a. Increase Awareness of Erosion Hazard – The Port of Bellingham relies on those jurisdictions with code establishment and enforcement authority within which Port facilities are located to implement this Mitigation Action. The only identified erosion hazard on Port properties is to Port-owned breakwater structures at Squalicum and Blaine Harbors and the appropriate Port Engineering and Facilities leads are aware of this hazard as part of their core functions. As such, this Mitigation Action is not considered applicable to the Port and has been discontinued.

Lead Entity	N/A
Funding Source	
Current Status	Discontinued



Port of Bellingham 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

- Goal 1.** Protect Life, Property and Public Welfare
- Goal 2.** Increase Public Awareness
- Goal 3.** Preserve and Enhance Natural Systems
- Goal 4.** Encourage Partnership for Implementation
- Goal 5.** Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Port of Bellingham-Specific Hazard Mitigation Goals

The Port of Bellingham supports the county-wide planning goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Port of Bellingham considered mitigation options related to earthquake, flooding, erosion, tsunami, winter storms, severe wind, especially those related to flooding because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Port of Bellingham. Some options have already been implemented or are ongoing in Port of Bellingham, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Port of Bellingham has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. Port of Bellingham is working in cooperation with the County and other participating communities and special districts to develop a systematic methodology that would use multiple



evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Port of Bellingham Identified Mitigation Actions 2021-2025

PORT OF BELLINGHAM IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	G-1 Distribute Whatcom County Emergency Preparedness Guide.	2	Emergency Management	M	M	Local	15,000
Hazard Specific (Reference: <u>Whatcom County Mitigation Ideas</u>)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Droughts/Heat Waves	D-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Earthquakes	<i>EQ-c. Design all Critical Facilities and Infrastructure for design earthquake event</i>	1	Facilities/E&PS	M	O	Local, State, and Federal	
	EQ-1 Incorporate Earthquake Mitigation into Port Planning	1	Environmental and Planning	M	M	Local	unknown
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



			Services (E&PS)				
	EQ-2 Map and Assess Port Vulnerability to Seismic Hazards	1, 2	E&PS	M	M	Local, State & Federal	unknown
	EQ-3 Increase Earthquake Risk Awareness	2	Emergency Mgmt	M	M	Local	15,000
	EQ-4 Provide Information on Structural and Non-Structural Retrofitting	1	Emergency Mgmt/Real Estate	M	M	Local	15,000.
	EQ-5. Conduct Inspections of Building Safety –	1	Facilities	M	M	Local, State and Federal	Unknown
Extreme Temperatures	ET-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Flooding	FL-1 Participate in Partnerships to Support Floodplain Management	4, 1	E&PS	L	M	Local	unknown
	FL-2 Increase Awareness of Flood Risk and Safety	2	Emergency Mgmt	M	M	Local	15,000.
	FL-3. Incorporate Flood Mitigation in Local Planning	1, 2	Facilities/E&PS	M	M	Local, State and Federal	Unknown
	FL-4. Follow Current Building Codes and Development Standards	1	Facilities	M	M	Local	Unknown
	FL-5. Stormwater Management Planning	1, 2	Facilities/E&PS	M	M	Local, State	Cost of current staff
	FL-6. Adopt Policies to Reduce Stormwater Runoff	1	Facilities/E&PS	M	M	Local, State	Cost of Current staff
	FL-7. Conduct Regular Maintenance for	1	Facilities/E&PS	M	M	Local,	Unknown

Priority:
H (High); M (Medium); L (Low)

Timeline:
Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing

Funding Source:
Local; State; FEMA; Private; Other

Estimated Cost:
Actual; Estimated



	Drainage Systems and Flood Control Structures					State	
	FL-8. Protect Infrastructure	1	Facilities	M	M	Local	Unknown
	FL-9. Design and construct Critical Facilities to prevent flooding and future sea level rise.	1, 5	Facilities	M	M	Local	Unknown
Landslide/ Erosion	ER-1 Manage Development in Erosion Hazard Areas	1, 3	E&PS	M	M	Local	Unknown
	ER-2. Stabilize Erosion Hazard Areas	1, 5	Facilities	M	M	Local	Unknown
Land Subsidence	LS-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Lightning	L-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Severe Storms	SS-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Severe Wind	SW-1. Apply Site and Building Design Standards that Minimize Wind Damage	1	Facilities and E&PS	M	M	Local	Unknown
	SW-2. Assess Vulnerability to Severe Wind	1,	Facilities	M	M	Local	Unknown
	SW-3. Protect Power Lines and Infrastructure	1, 5	Facilities	M	M	Federal, State and Local	Unknown
Tornadoes	T-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Tsunami	<i>TSU-a Ongoing -- Map and Assess Vulnerability to Tsunami</i>	1, 5	WDNR, City of Bellingham	M	O	Federal, State, and	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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						Local	
	<i>TSU-b Ongoing -- Increase Public Awareness of Tsunami Hazard</i>	2	WDNR, Whatcom County, City of Bellingham, Port of Bellingham	M	O	Federal, State, and Local	
	TSU-1 Manage Development of Port infrastructure in Tsunami Hazard Areas	1, 5	Environmental and Planning Services (E&PS)	M	M	Local	Unknown
Wildfires	WF-1 There are no new actions considered/all actions ongoing, discontinued, or completed						
Winter Storms/ Freezes (Severe Winter Weather)	WW-1 Conduct Winter Weather Risk Awareness Activities	2	Emergency Mgmt/Facilities	M	M	Local	15,000
	WW-2. Design and construct Buildings and Infrastructure to withstand design storm events	1	Facilities	M	M	Local	Unknown
	WW-3. Reduce Impacts to Roadways	1, 5	Facilities	M	M	Local	Unknown
Multiple Hazards	<i>MU-a Ongoing -- Increase Hazard Education and Risk Awareness</i>	2	City of Bellingham, Whatcom County	M	O	Local	
	MU-1 Increase Port Live Aboard Disaster Preparedness Awareness	1, 2	Emergency Mgmt	M	M	Local	15,000.
	MU-2 Promote Private Mitigation Efforts	4	Emergency Mgmt	M	M	Local	15,000.
	MU-3. Assess Community Risk	1, 2, 5	Emergency Management	M	M	Local and State	Current Staff

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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	MU-4 Map Risk	1, 2, 5	Emergency Management	M	M	Local and State	Current Staff
	MU-5. Prevent Development in Hazard Areas	1, 2, 5	E&PS	M	M	Local and State	Current Staff
	MU-6 Integrate Mitigation into Local Planning	1, 2, 5	E&PS	M	M	Local	Current Staff
	MU-7. Monitor Mitigation Plan Implementation	1, 2, 5	Emergency Management	M	M	Local	Current Staff
	MU-8 Construct and improve Infrastructure and Critical Facilities to mitigate damage from multiple hazards.	1	Facilities	M	M	Local and State	Unknown
Advanced Mitigation Projects (Dream List)	International Cargo Terminal Flooding at Sumas	1	Port	M	L	Local	unknown
	Survey of existing mines – Bellingham International Airport	1	Port	L	L	State, Federal	Unknown
	Survey of existing mines- Bellingham Shipping Terminal	1	Port	L	L	State, Federal	Unknown
	Survey of existing mines-Squalicum Harbor	1	Port	L	L	State, Federal	Unknown
	Survey of existing mines- Fairhaven Station	1	Port	L	L	State, Federal	Unknown

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Port of Bellingham Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

Step One: Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.

Step Two: Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.

Step Three: Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review

Step Four: Submit the completed form(s) to the Whatcom County DEM.

Port of Bellingham Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					Notes on yearly progress
	2021	2022	2023	2024	2025	
GENERAL: ALL HAZARDS						
G-1 Distribute Whatcom County Emergency Preparedness Guide.						
<i>Add New Action Items if Applicable</i>						
DAM/LEVEE FAILURES						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						



Port of Bellingham Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						
EARTHQUAKES						
EQ-a. Ongoing -- Conduct Outreach to Builders, Architects, Engineers and Inspectors						
EQ-c. Ongoing -- Design all Critical Facilities and Infrastructure for design earthquake event						
EQ-1 Incorporate Earthquake Mitigation into Port Planning						
EQ-2 Map and Assess Port Vulnerability to Seismic Hazards						
EQ-3 Increase Earthquake Risk Awareness						
EQ-4 Provide Information on Structural and Non-Structural Retrofitting						
EQ-5. Conduct Inspections of Building Safety						
Add New Action Items if Applicable						
FLOODING						
FL-1 Participate in Partnerships to Support Floodplain Management						
FL-2 Increase Awareness of Flood Risk and Safety						
FL-3. Incorporate Flood Mitigation in Local Planning –						
FL-4. Follow Current Building Codes and Development Standards						
FL-5. Stormwater Management Planning						
FL-6. Adopt Policies to Reduce Stormwater Runoff						
FL-7. Conduct Regular Maintenance for						



Port of Bellingham Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Drainage Systems and Flood Control Structures						
FL-8 Protect Infrastructure						
FL-9. Design and construct Critical Facilities to prevent flooding and future sea level rise.						
<i>Add New Action Items if Applicable</i>						
LANDSLIDES/EROSION						
ER-a. Ongoing -- Increase Awareness of Erosion Hazard						
ER-1. Manage Development in Erosion Hazard Areas						
ER-2. Stabilize Erosion Hazard Areas						
<i>Add New Action Items if Applicable</i>						
LAND SUBSIDENCE						
<i>Add New Action Items if Applicable</i>						
TORNADOES						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						
TSU-a. Ongoing -- Map and Assess Vulnerability to Tsunami						
TSU-b. Ongoing -- Increase Public Awareness of Tsunami Hazard						
TSU-1. Manage Development of Port infrastructure in Tsunami Hazard Areas						
<i>Add New Action Items if Applicable</i>						
WILDFIRES						



Port of Bellingham Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WW-1 Conduct Winter Weather Risk Awareness Activities						
WW-2. Design and construct Buildings and Infrastructure to withstand design storm events						
WW-3 Reduce Impacts to Roadways						
Add New Action Items if Applicable						
EXTREME TEMPERATURES						
Add New Action Items if Applicable						
LANDSLIDE						
Add New Action Items if Applicable						
LIGHTNING						
Add New Action Items if Applicable						
SEVERE WIND						
SW-a. Ongoing -- Apply Site and Building Design Standards that Minimize Wind Damage						
SW-b. Ongoing -- Assess Vulnerability to Severe Wind						
SW-c. Ongoing -- Protect Power Lines and Infrastructure						
Add New Action Items if Applicable						
MULTIPLE HAZARDS						



Port of Bellingham Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>MU-a. Ongoing -- Increase Hazard Education and Risk Awareness</i>						
<i>MU-b. Ongoing -- Protect Structures</i>						
MU-1 Increase Port Live Aboard Disaster Preparedness Awareness						
MU-2 Promote Private Mitigation Efforts						
MU-3. Assess Community Risk						
MU-4. Map Community Risk						
MU-5. Prevent Development in Hazard Areas						
MU-6. Integrate Mitigation into Local Planning						
MU-7. Monitor Mitigation Plan Implementation						
MU-8. Construct and improve Infrastructure and Critical Facilities to mitigate damage from multiple hazards.						
<i>Add New Action Items if Applicable</i>						



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CITY OF SUMAS

Contact Information

Daniel DeBruin

Chief of Police
433 Cherry Street / P.O. Box 9 Sumas, WA 98295
(360) 988-5711

Approving Authority

Mayor Kyle Christensen & City Council Members

433 Cherry Street / P.O. Box 9 Sumas, WA 98295
(360) 988-5711

Planning Process

The City of Sumas process of reviewing, updating, and adopting the 2021 update of the Whatcom County Natural Hazards Mitigation Plan (NHMP or Plan) included review by multiple City departments and formal adoption by the City Council. Review of the prior plan began in early 2021. The City Planner reviewed the previous plan and met with the Public Works Director and Chief of Police to identify details that might need to be updated. From January through April of 2021, City staff attended a series of coordination meetings hosted by the County Division of Emergency Management (DEM). Initial guidance was received from DEM regarding the update schedule and the main areas to focus on as part of the update.

In early March 2021, the City provided public notice in the Lynden Tribune regarding the planned update of the NHMP and posted information regarding the update on the City website. Information regarding opportunities to provide public comment was also posted on the City website. During March and April of 2021, the City Planner prepared draft revisions to the NHMP and met with the Public Works Director and the Chief of Police to review the draft revisions and receive additional input. During the same time period, City staff participated in two virtual public meetings hosted by DEM where the public was invited to receive information and ask questions regarding the 2021 update of the NHMP.

The draft revisions to the NHMP addressing the city of Sumas, incorporating input received from the Public Works Director, Mayor and Chief of Police, were submitted to DEM in late April 2021. In May of 2021, DEM notified the public regarding the availability of draft revisions to the full Plan and hosted a third virtual public meeting to receive comments from the public. Following review by the City Council in May 2021, the City Council passed a motion supporting the updates contained in the Sumas section of draft NHMP. Prior to the Plan being submitted to the Federal Emergency Management Agency for review, the City Council formally adopted the draft Plan on XX, 2021 through Resolution No. XX. It is anticipated that formal adoption by ordinance will follow approval from FEMA.



Key Contributor List

- Rollin Harper, City Planner
- Chief of Police Daniel DeBruin
- Sunny Aulakh, Public Works Director
- Mayor Kyle Christensen

Meeting Dates and Attendees

- February 18, 2021 – Harper, Aulakh and DeBruin
- April 15, 2021 – Harper, Aulakh and DeBruin
- April 29, 2021 – Harper, Aulakh and DeBruin

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability, and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the City of Sumas will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive plan required by the Growth Management Act (GMA);
- Development regulations required by the GMA;
- Critical areas ordinance;
- Capital improvement program;
- Capital facilities planning; and
- Water Resource Inventory Area planning.

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for the City of Sumas

The City of Sumas will maintain and update the Natural Hazards Mitigation Plan as needed to respond to changed circumstances, to incorporate best available science and to address changing community priorities. The Plan update process will include community engagement through public meetings and opportunities for public comment. Formal updates of the Plan will be reviewed by the City Council prior to adoption.

Public Outreach and Education



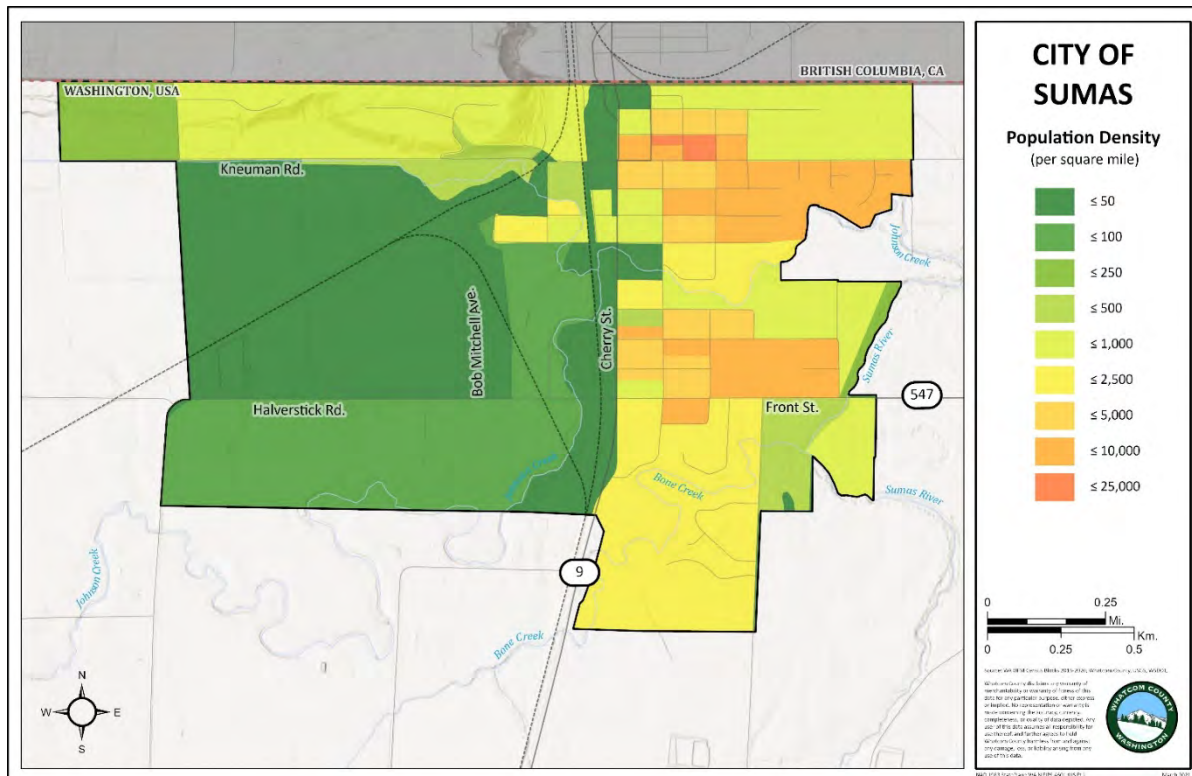
Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	No	
Ongoing public education or information programs	Yes 2006-Quarterly newsletters 2008-CRS notifications 2014- City website postings 2018-City Facebook postings	Information regarding water conservation, repetitive loss, winter storm preparedness, flood hazard preparedness.
School-related programs for natural hazard safety	Yes 2010 to present	Semiannual drills in schools regarding disaster preparedness
Public education or information program	Yes 2006-Quarterly newsletters 2008-CRS notifications 2014- City website postings 2018-City Facebook postings	Information regarding water conservation, repetitive loss, winter storm preparedness, flood hazard preparedness.
StormReady certification	No	Whatcom County is a StormReady County.
Firewise Community certification	No	The Paradise Lakes Country Club is a Firewise Site, but is located outside the City.
Public-Private Partnership initiatives addressing disaster-related issues	No	
Other		

Overview of Sumas, Hazards, and Assets



Geography of Sumas

Sumas Population	1,665 (2020 OFM estimate)
Total Area	1.44 sq. mi. (within city limits)

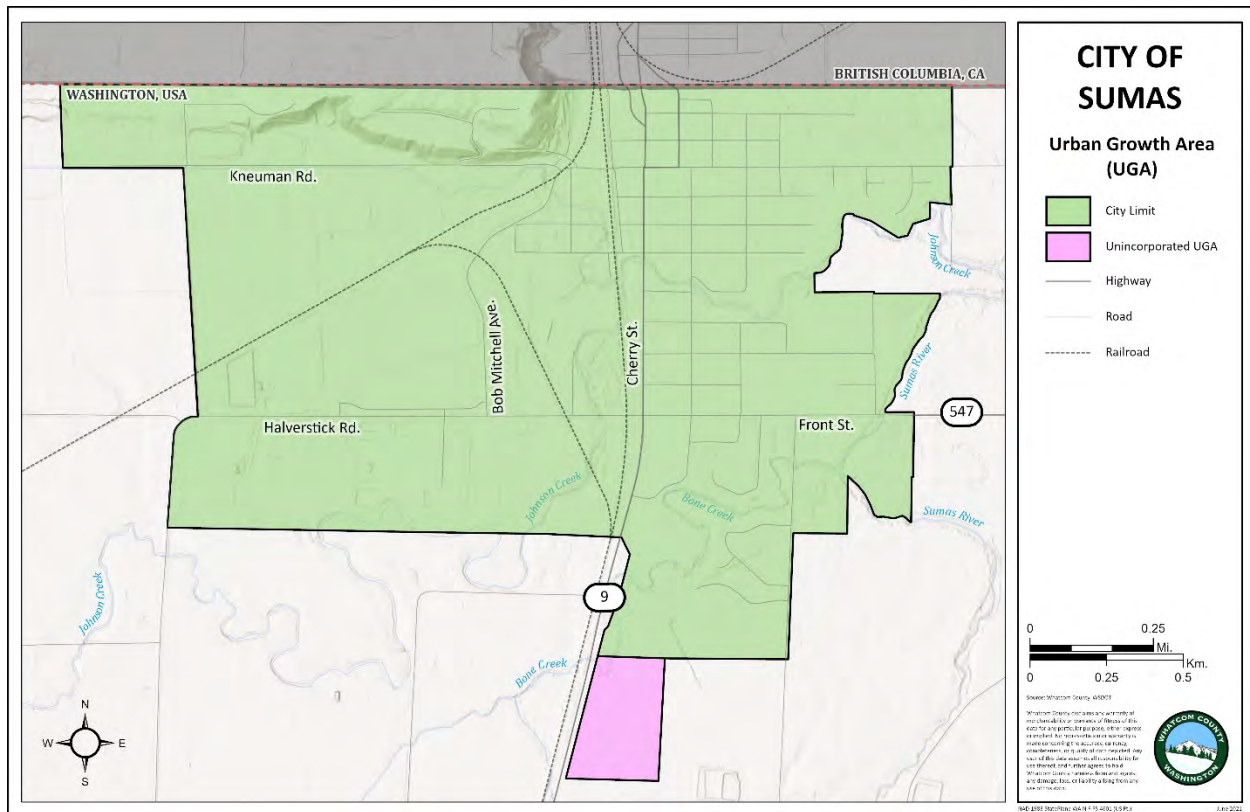


Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile.



Growth Trends

This map displays the UGA for the City of Sumas, as designated by the Whatcom County Comprehensive Plan.



Presence of Hazards and their Impacts in the City of Sumas

Flooding is a major hazard impacting the City of Sumas. Moderate to major flooding events occur approximately every five to ten years, with the most recent event taking place in February 2020. During that event, floodwaters from the Nooksack River flowed north through the Nooksack Overflow Corridor and through Sumas on the way to the Fraser River in Canada. That event saw major flooding through much of the City, with floodwater depths from one to three feet through much of the downtown commercial and residential areas. Numerous travel routes were unavailable and access to local businesses and services was also interrupted.

Since the 2016 NHMP was adopted, the City of Sumas has grown by roughly 150 people. While some of this growth has occurred on Moe Hill (the high ground outside the floodplain located adjacent to the Canadian border), the majority of new growth has occurred within the 100-year floodplain because nearly all of the remaining undeveloped land is in the floodplain. The presence of the floodplain throughout much of Sumas has resulted in the local school district



moving forward with construction of a new elementary school on the site of the existing school, which is in the floodplain. However, based on requirements set forth in the City's Flood Damage Prevention Ordinance, the new school will be constructed to have the lowest floor elevated three feet above the base elevation of the 100-year flood event.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Sumas' total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



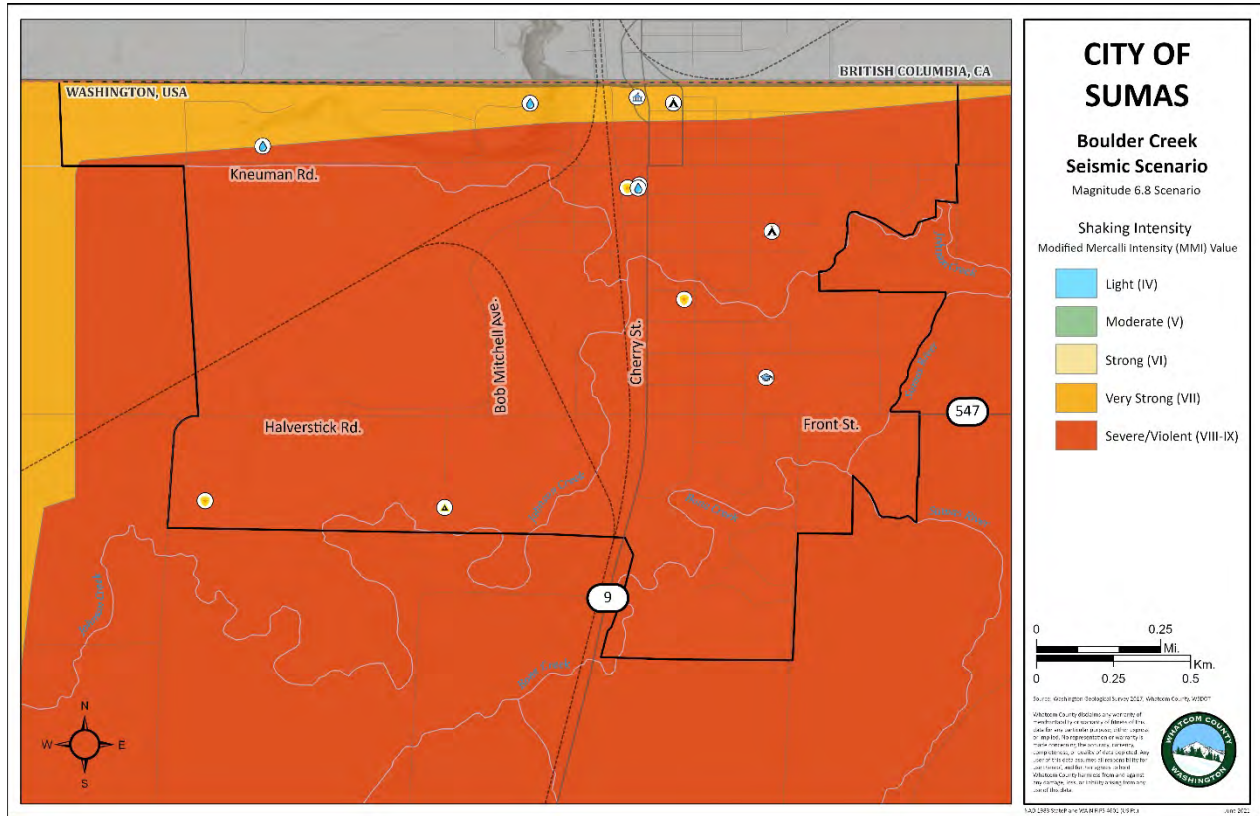
	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	99.9%	Mod	Subject to seismic activity. Significant risk due to Sumas' highest concentration of older homes in the county.
	Liquefaction	91.5%	Low	Seismically-sensitive soils.
	Landslide	0%	Low	The steep slopes along the southern margin of Moe Hill present a low severity risk of landslide.
	Volcano	88.9%	Low	The City is at risk of a Mount Baker lahar.
	Tsunami	0%	None	N/A
	Mine Hazards	0%	None	N/A
Hydrological	Flooding	88.5%	High	During a flooding event, the majority of the City floods from the Nooksack River, from west to east, in a northeasterly flow.
Meteorological	Wildfire	17.5%	None	N/A

Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread

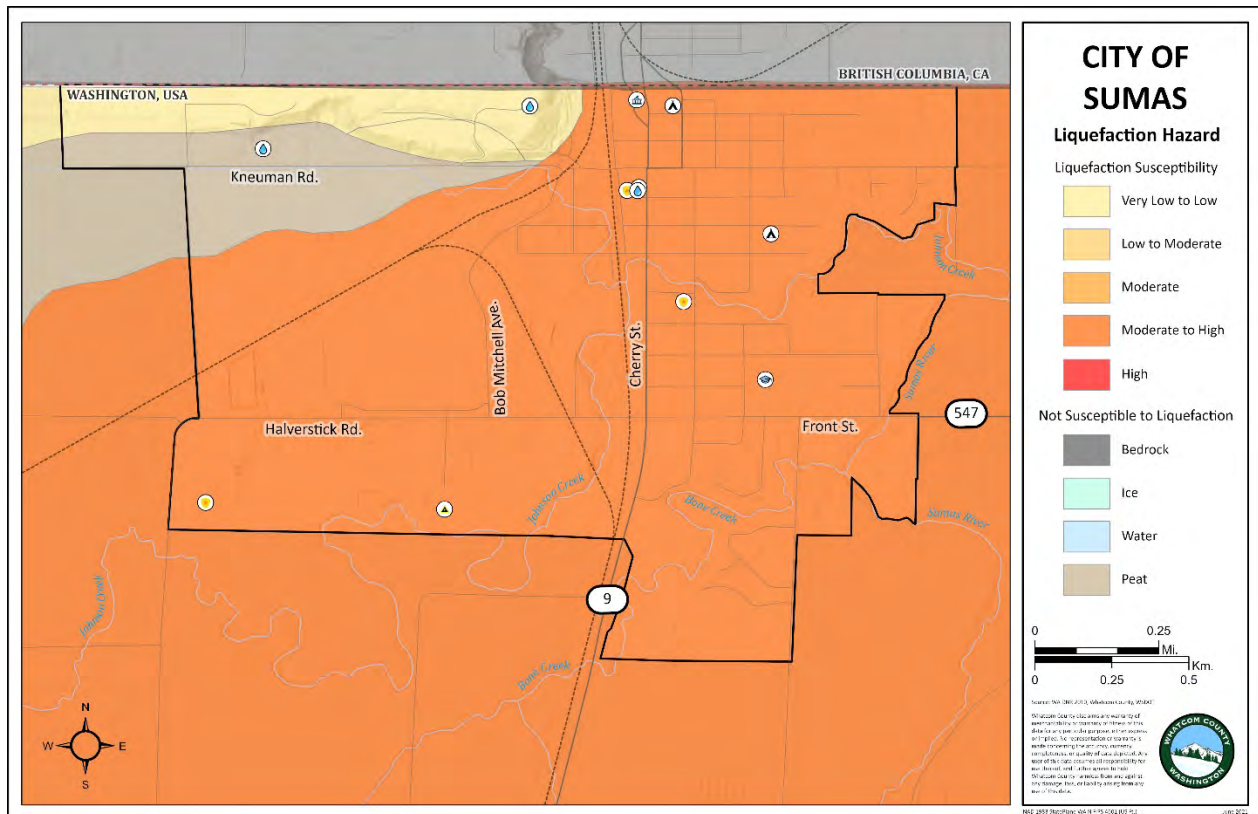


Natural Hazard Maps

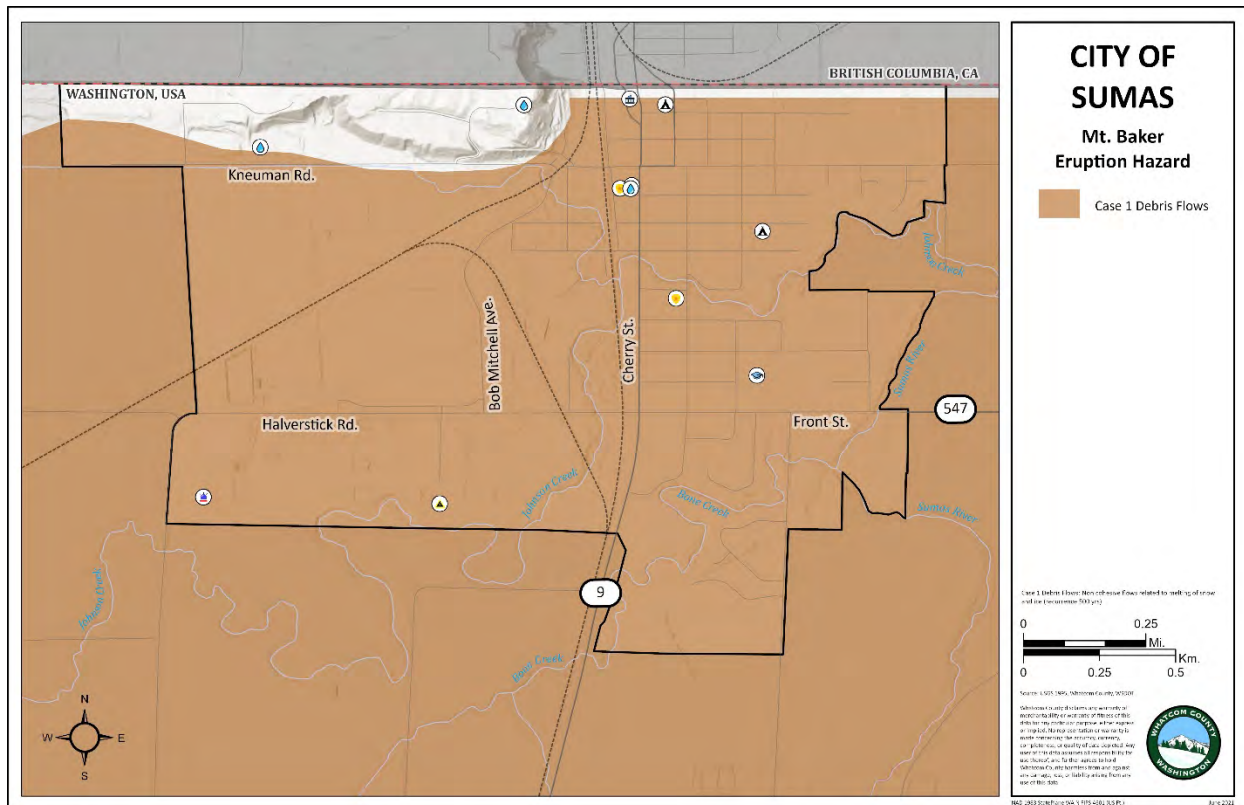
The following figures depict the natural hazards present within the jurisdiction.



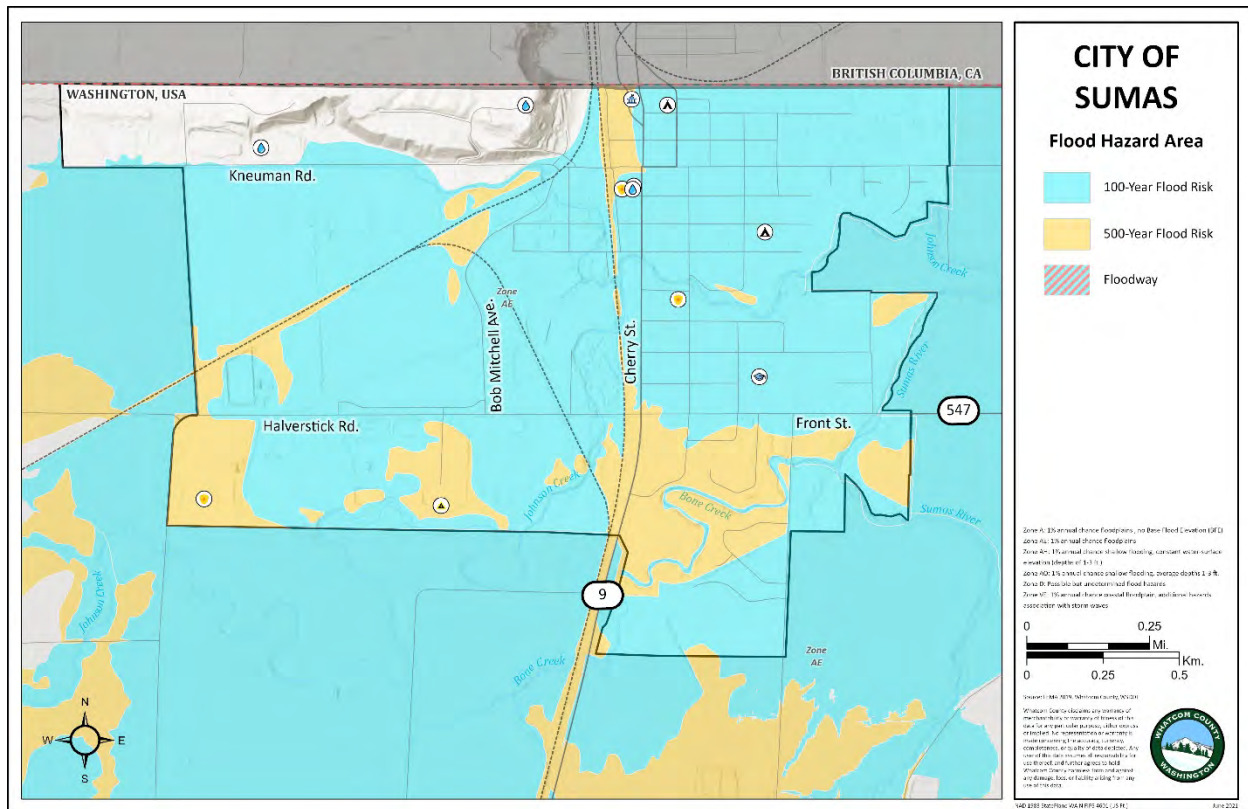
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Sumas' Critical Facility List

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
American Legion Hall	EF	1	134 Harrison Avenue		Emergency Services
Elementary School - Dist. 506	EF	2	1024 Lawson Street		Evacuation Center
High School - District 506	EF	2	3326 E. Badger Road (County)		Evacuation Center
May Road Wellfield	LUS	3	9700 May Road		Utility: Water
Middle School - District 506	EF	1	404 W. Columbia Street, Nooksack		Evacuation Center
Sumas City Hall	EF	3	433 Cherry Street		Government
Sumas City Reservoir	LUS	3	205 Washington Street		Utility: Water
Sumas City Wellfield	LUS	3	3670 Kneuman Road		Utility: Water
Puget Sound Energy	LUS	1	601-B W. Front Street		Utility: Power
Sumas Fire Station	EF	3	143 Columbia Street		
Sumas Police Dept.	EF	3	433 Cherry Street		Law Enforcement
Sumas Senior Center	EF	2	451 Second Street		Evacuation Center
Sumas Water & Lights	EF	3	433 Cherry Street		Government
Sumas – Customs and Border Patrol	EF	2	109 Cherry Street		Law Enforcement
Williams Gas Pipeline	HMF	2	4378 Jones Road		Fuel
U.S. Border Patrol	EF	3	9648 Garrison Road		Law Enforcement

Facility Type: **EF** = Essential Facility; **HMF** = Hazardous Materials Facility; **HPL** = High Potential Loss; **LUS** = Lifeline Utility System

Significance to community function: **1**=Moderate; **2**= High; **3** =Very High



Critical Facility Rankings for the City of Sumas

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
American Legion Hall	EF	1	1	1	0	0	1	1	0	0	0.33
Elementary School - Dist. 506	EF	2	1	1	0	0	1	1	0	0	0.66
High School - District 506	EF	2	1	1	0	0	1	1	0	0	0.66
May Road Wellfield	LUS	3	1	1	0	0	1	1	0	0	1
Middle School - District 506	EF	1	1	1	0	0	1	1	0	0	0.33
Sumas City Hall	EF	3	1	1	0	0	1	1	0	0	1
Sumas City Reservoir	LUS	3	1	1	0	0	1	0	0	0	0.86
Sumas City Wellfield	LUS	3	1	0	0	0	1	0	0	1	0.86
Puget Sound Energy	LUS	1	1	1	0	0	1	1	0	0	0.33
Sumas Fire Station	EF	3	1	1	0	0	1	1	0	0	1
Sumas Police Dept.	EF	3	1	1	0	0	1	1	0	0	1
Sumas Senior Center	EF	2	1	1	0	0	1	1	0	0	0.66
Sumas Water & Lights	EF	3	1	1	0	0	1	1	0	0	1
Sumas – CBP	EF	2	1	1	0	0	1	1	0	0	0.66
Williams Gas Pipeline	HMF	2	1	1	0	0	1	1	0	0	0.66
U.S. Border Patrol	EF	3	1	1	0	0	1	1	0	0	1

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

City of Sumas Exposure to Natural Hazards						
	Hazard Susceptibility	Asset County (% of Total)				Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological	Earthquake, Shaking Intensity					
	MMI IV	-	-	-	-	-
	MMI V	-	-	-	-	-
	MMI VI	-	-	-	-	-
	MMI VII	11.9%	6.4%	10.6%	43.7%	\$18
	MMI VIII - IX	88%	93.1%	89.4%	56.3%	\$36
	TOTAL	99.9%	99.5%	100%	100%	\$54
	Liquefaction					
	Very Low to Low	7.9%	4.1%	6.8%	12.5%	\$0.3
	Low to Moderate	-	-	-	-	-
	Moderate	-	-	-	81.3%	\$53
	Moderate to High	83.6%	93.5%	91.2%	-	-
	High	-	-	-	-	-
	TOTAL	91.5%	97.6%	98%	93.8%	\$53.3
	Volcanic Eruption					
	Case 1 Debris Flows	88.9%	93.6%	91.4%	75% ¹	\$49 ¹
	Case 2 Debris Flows	-	-	-	-	-
	Case M Flows	-	-	-	6.3% ¹	\$5 ¹



	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	-	-	-	-	-
	<i>Lateral Blast Hazard Zone</i>	-	-	-	-	-
	TOTAL	88.9%	93.6%	91.4%	81.3%	\$54
	Tsunami, Inundation Zone					
	<i>Low to Moderate Inundation Potential</i>	-	-	-	-	-
	<i>Moderate to High Inundation Potential</i>	-	-	-	-	-
	<i>High Inundation Potential</i>	-	-	-	-	-
	TOTAL	-	-	-	-	-
Hydrological	Flooding					
	<i>100-year Flood</i>	72.2%	82.8%	73.9%	56.2%	\$11
	<i>500-year Flood</i>	16.3%	11%	19%	18.8%	\$33
	<i>Floodway</i>	-	-	-	-	-
	<i>Undetermined (Zone D)</i>	-	-	-	-	-
	TOTAL	88.5%	93.8%	92.9%	75%	\$44
Meteorological	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	0.3%	0.3%	0.1%	-	-
	<i>Interface Medium-High Structure Density</i>	0.6%	0.9%	0.2%	-	-
	<i>Intermix Very Low-Low Structure Density</i>	9.5%	3.7%	2.5%	6.3%	-
	<i>Intermix Medium-High Structure Density</i>	7.1%	4.8%	5.9%	-	-
	TOTAL	17.5%	9.7%	8.7%	6.3%	-

¹Some critical facilities located in multiple hazard zones.



Status of Sumas's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

1	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
5	Funding Source:	Local; State; FEMA; Private; Other
6	Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

General: All Hazards

G-a. Adopt and Enforce Building Codes. This applies to earthquakes, flooding, winter storms/freezes, and severe wind. The City Building Department continues to adopt and enforce local building codes to reduce risks from natural hazards.

Lead Agency	City Building Department
Funding Source	Local; City General Fund
Current Status	Ongoing

Education and Outreach

EO-a. Emergency preparedness education programs for schools. Emergency preparedness and emergency management is delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom County with emergency planning.

Lead Agency	School District
Funding Source	Local, Homeland Security Grant Funding
Current Status	Action Ongoing and continuous

EO-b. Drills, exercises in homes, workplaces, classrooms, etc. Emergency drills and exercises are delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom



County with emergency drills and exercises.

Lead Agency	School District
Funding Source	Local; Annual budget / Member dues
Current Status	Ongoing

EO-c. Distribution of severe weather guides, preparedness handbooks, brochures

homeowner's retrofit guide, etc. The Whatcom County Sheriff's Office Division of Emergency Management is the county focal point for the distribution of brochures, handbooks and guides for emergency and disaster management.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action Ongoing and continuous

EO-d. Newsletters and utility bill inserts. The City Public Works Department continues provide hazard information to citizens, including through quarterly newsletters and information included with monthly utility bills.

Lead Agency	City Public Works Department
Funding Source	Local; City General Fund
Current Status	Ongoing

Drought/heat wave

D-a. Assess Vulnerability to Drought Risk. The City Planning Department continues to assess risks related to drought, including as part of the 2016 update to the City's critical areas ordinance.

Lead Agency	City Planning Department
Funding Source	Local; City Water Fund
Current Status	Ongoing

D-b. Monitor Drought Conditions. The City Public Works Department continues to monitor drought conditions on annual basis and implements water-related mitigation strategies as appropriate.

Lead Agency	City Public Works Department
Funding Source	Local; City Water Fund
Current Status	Ongoing



D-c. Monitor Water Supply. The City Public Works Department continues to monitor the public water supply and implement water conservation strategies as appropriate.

Lead Agency	City Public Works Department
Funding Source	Local; City Water Fund
Current Status	Ongoing

D-e. Plan for Drought. The City Planning Department continues to plan for droughts, including as part of the 2016 update of the city comprehensive land use plan.

Lead Agency	City Planning Department
Funding Source	Local; City Water Fund
Current Status	Ongoing

D-f. Require Water Conservation During Drought Conditions. The City Public Works Department continues to monitor drought conditions and implement water conservation measures as appropriate.

Lead Agency	City Public Works Department
Funding Source	Local; City Water Fund
Current Status	Ongoing

D-g. Educate Residents on Water Saving Techniques. The City Administration continues to support education of residents regarding water conservation efforts, including through information provided with quarterly newsletters and monthly utility bulls.

Lead Agency	City Administration
Funding Source	Local; City Water Fund
Current Status	Ongoing

Earthquake

EQ-a. Incorporate Earthquake Mitigation into Local Planning. The City Planning Department continues to incorporate planning related to earthquakes, including as part of the 2016 update to the city comprehensive plan.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

EQ-b. Map and Assess Community Vulnerability to Seismic Hazards. The City Planning



Department continues to map and assess vulnerability to seismic hazards, including as part of the 2016 update of the city critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

EQ-c. Conduct Inspections of Building Safety. The City Building Department continues to conduct inspections related to building safety as required by City building codes.

Lead Agency	City Building Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

EQ-d. Protect Critical Facilities and Infrastructure. The City Building, Planning and Public Works Departments continue to protect critical facilities and infrastructure, including requiring critical facilities to be elevated three feet above the FEMA base flood elevation.

Lead Agency	City Building, Planning and Public Works Depts.
Funding Source	Local; City General Fund
Current Status	Ongoing

EQ-e- Protect Wellfield Backup Power.

Lead Agency	City Public Works Dept.
Funding Source	Local
Current Status	Discontinued

Volcano

No actions ongoing, discontinued, or completed for this hazard.

Extreme Temp

No actions ongoing, discontinued, or completed for this hazard.

Flooding

FL-a. Incorporate Flood Mitigation in Local Planning. The City Planning Department continues to incorporate flood mitigation into local planning, including as part of the 2016 update of the city critical areas ordinance, the 2019 adoption of new FEMA flood insurance rate maps, and updates to the County comprehensive flood hazard management plan currently underway.



Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-b. Form Partnerships to Support Floodplain Management. The City Planning and Public Works Departments continue to work to form partnerships that support floodplain management, including working closely with County long-range and current planning divisions and the County Public Works River and Flood Division.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-c. Limit or Restrict Development in Floodplain Areas. The City Planning, Building and Public Works Departments continue to limit development in floodplain areas through amendment and enforcement of City critical areas ordinance regulations, flood damage prevention regulations, and city building codes.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-d. Improve Stormwater Management Planning. The City Planning Department continues to improve planning, regulation and enforcement related to stormwater management, including through 2016 updates to the City comprehensive plan and the 2016 adoption of the state stormwater management manual for Western Washington.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-e. Improve Flood Risk Assessment. The City Public Works Department continues to assess risks related to flooding, including through participation in the federal CRS Program and RISK Map assessment efforts.



Lead Agency	City Public Works Dept
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-f. Join or Improve Compliance with NFIP. The City continues to participate in the National Flood Insurance Program (NFIP). The City Planning, Building and Public Works Departments continue to work to improve compliance with the NFIP, including through adoption of 2019 amendments to the City's flood damage prevention ordinance that included updated flood insurance rate maps.

Lead Agency	City Planning, Building and Public Works Depts.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-g. Manage the Floodplain Beyond Minimum Requirements. The City Planning and Building Departments continue to manage floodplains beyond minimum requirements, including through amendment of critical areas and floodplain management regulations that require extra elevation of critical facilities and prohibit the placement of fill within floodplains except under certain conditions

Lead Agency	City Planning and Building Depts.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-h. Establish Local Funding Mechanisms for Flood Mitigation. The County Flood Control Zone District continues to make locally generated district funds available for local projects, including the buyout of property in high hazard areas.

Lead Agency	County Flood Control Zone District
Funding Source	Local; County Flood Fund
Current Status	Ongoing

FL-i. Improve Stormwater Drainage System Capacity. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual system upgrades and maintenance projects.



Lead Agency	City Public Works Dept
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-j. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures. The City Public Works Department continues to work to improve stormwater drainage system capacity through annual maintenance projects, such as inspection and clearing of stormwater conveyance systems.

Lead Agency	City Public Works Dept
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-k. Preserve Floodplains as Open Space. The City Planning Department continues to work to preserve floodplains as open space, including through the recording of restrictive covenants required in conjunction with approved subdivisions.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

FL-l. FL-5 Sumas Avenue Replacement.

Lead Agency	WSDOT
Funding Source	State and Federal
Current Status	Discontinued

Landslide/erosion

No actions ongoing, discontinued, or completed for this hazard.

Landslide Subsidence

SU-a. Map and Assess Vulnerability to Subsidence. The City Planning Department continues to map and assess vulnerability to subsidence, including through 2016 updates to the City critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing



SU-b. Manage Development in High-Risk Areas. The City Building Department continues to manage development in high risk areas, including through required geologically hazardous area site assessment reports.

Lead Agency	City Building Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing

Lightning

No actions ongoing, discontinued, or completed for this hazard.

Winter Storms/Freezes

WW-a. Protect Buildings and Infrastructure. The City Public Works Department continues to work to protect public buildings and infrastructure from severe winter storms, including through annual maintenance and upgrades to increase system resiliency.

Lead Agency	City Public Works Dept
Funding Source	Local; City General, Water and Sewer Funds
Current Status	Ongoing

WW-b. Protect Power Lines. The City Public Works Department continues to work to protect power lines through as-needed inspections and repairs following major winter storm events.

Lead Agency	City Public Works Dept
Funding Source	Local; City General Funds
Current Status	Ongoing

WW-c. Reduce Impacts to Roadways. The City Public Works Department continues to work to reduce impacts to roadways, including through implementation of road closures during major freeze/thaw events.

Lead Agency	City Public Works Dept
Funding Source	Local; City Street Funds
Current Status	Ongoing

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.



Severe Wind

SW-a. Protect Power Lines and Infrastructure. The City Public Works Department continues to work to protect power lines and infrastructure through as-needed inspections and repairs following major wind events.

Lead Agency	City Public Works Dept
Funding Source	Local; City General Funds
Current Status	Ongoing

SW-b. Retrofit Public Buildings and Critical Facilities. The City Public Works Department continues to work to protect public buildings and infrastructure, including through undergrounding of power lines and provision of back-up power generation at critical facilities.

Lead Agency	City Public Works Dept
Funding Source	Local; City General Funds
Current Status	Ongoing

Tornadoes

No actions ongoing, discontinued, or completed for this hazard.

Tsunami

No actions ongoing, discontinued, or completed for this hazard.

Wildfire

No actions ongoing, discontinued, or completed for this hazard.

Winter storms/Freezes

No actions ongoing, discontinued, or completed for this hazard.

Multiple Hazards

MU-a. Assess Community Risk. The City Planning and Public Works Departments continue to assess risks to the public from natural hazards, including through review of repetitive loss properties and review and adoption of updated hazard maps.



Lead Agency	City Planning and Public Works Depts.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-b. Map Community Risk. The City Planning Department continues to work to map natural hazard areas and assess the risks associated with such areas, including through the 2016 update of the City’s critical areas ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-c. Prevent Development in Hazard Areas. The City Building and Planning Departments continue to prevent development in hazard areas, including through enforcement of floodplain, steep slopes and other critical areas regulations,

Lead Agency	City Building and Planning Depts.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-d. Adopt Development Regulations in Hazard Areas. The City Building and Planning Departments continue to work to adopt regulations addressing hazard areas, including through the 2016 update to the City’s critical areas ordinance and the 2019 adoption of updated FEMA flood insurance rate maps and Flood Damage Prevention ordinance.

Lead Agency	City Building and Planning Depts.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-e. Limit Density in Hazard Areas. The City Planning Department continues to work to limit density in hazard areas, including through adoption of flood corridor regulations and establishment of low-density zones in hazard areas, such as Agriculture and Residential, Low-Density.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-f. Integrate Mitigation into Local Planning. The City Planning Department continues to



integrate mitigation into local planning, including through establishment and enforcement of mitigation requirements under the City's critical areas regulations.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-g. Strengthen Land Use Regulations. The City Planning Department continues to work to strengthen local land use regulations, including through the 2016 update of the City's critical areas ordinance and 2019 updates to the City's Flood Damage Prevention ordinance.

Lead Agency	City Planning Dept.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-h. Monitor Mitigation Plan Implementation. The City Planning and Public Works Departments continue to monitor implementation of the Natural Hazards Mitigation Plan through the required annual review process.

Lead Agency	City Planning and Public Works Depts.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-i. Protect Structures. The City Building and Public Works Departments continue to work to protect structures within the City through enforcement of local building codes and critical areas regulations.

Lead Agency	City Building and Public Works Depts.
Funding Source	Local; City General Funds
Current Status	Ongoing

MU-j. Protect Infrastructure and Critical Facilities. The City Public Works Department continues to work to protect infrastructure and critical facilities, including through regular inspections, annual maintenance projects and capital improvement projects, such as elevating critical facilities above minimum standards.

Lead Agency	City Public Works Dept.
Funding Source	Local; City General, Water and Sewer Funds
Current Status	Ongoing



MU-k. Increase Hazard Education and Risk Awareness. The City Public Works Department continues to work to increase hazard education and risk awareness, including through informational materials included in quarterly newsletters and posted on the City website.

Lead Agency	City Public Works Dept.
Funding Source	Local; City General Fund
Current Status	Ongoing



Sumas 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

Goal 1. Protect Life, Property and Public Welfare

Goal 2. Increase Public Awareness

Goal 3. Preserve and Enhance Natural Systems

Goal 4. Encourage Partnership for Implementation

Goal 5. Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Sumas-Specific Hazard Mitigation Goals

Sumas supports the above county-wide goals. No additional community-specific mitigation planning goals have been identified at this time.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Sumas considered mitigation options related to earthquakes, droughts, land subsidence, winter storms, severe winds, severe storms, and especially those related to flooding, because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Sumas. Some options have already been implemented or are ongoing in Sumas, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Sumas has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial, and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property, and public welfare. Sumas is working in cooperation with the County and other participating communities



and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years)
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Sumas Identified Mitigation Actions 2021-2025

CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
GENERAL: ALL HAZARDS	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	Education and Awareness Actions	<i>G-a. Ongoing -- Adopt and Enforce Building Codes.</i>	1,2	City Building Dept		O	
Education and Outreach		<i>EO-a. Ongoing -- Emergency preparedness education programs for schools.</i>	2	School District		O	
		<i>EO-b. Ongoing -- Drills, exercises in homes, workplaces, classrooms, etc.</i>	2	School District		O	
		<i>EO-c. Ongoing -- Distribution of severe weather guides, preparedness handbooks, brochures homeowner's retrofit guide, etc.</i>	2	WCDEM		O	
		<i>EO-d. Ongoing -- Newsletters and utility bill inserts.</i>	2	City Public Works Dept		O	
Hazard Specific (Reference: Whatcom County Mitigation Ideas)	Actions communities should consider to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.						
Dam/Levee							
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Failures (See: Flooding)							
Droughts/Heat Waves	<i>D-a. Ongoing -- Assess Vulnerability to Drought Risk.</i>	1,2	City Planning Department		O		
	<i>D-b. Ongoing -- Monitor Drought Conditions.</i>	1,2	City Public Works Department		O		
	<i>D-c. Ongoing -- Monitor Water Supply.</i>	1,2,5	City Public Works Department		O		
	<i>D-e. Ongoing -- Plan for Drought.</i>	1			O		
	<i>D-f. Ongoing -- Require Water Conservation During Drought Conditions</i>	1	City Public Works Department		O		
	<i>D-g. Ongoing -- Educate Residents on Water Saving Techniques.</i>	2	City Administration		O		
Earthquakes	<i>EQ-a. Ongoing -- Incorporate Earthquake Mitigation into Local Planning.</i>	1,4	City Planning Dept		O		
	<i>EQ-b. Ongoing -- Map and Assess Community Vulnerability to Seismic</i>	1,2	City Planning Dept		O		
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>Hazards.</i>						
	<i>EQ-c. Ongoing -- Conduct Inspections of Building Safety.</i>	1	City Building Dept		O		
	<i>EQ-d. Ongoing -- Protect Critical Facilities and Infrastructure</i>	1,5	City Building, Planning and Public Works		O		
Volcano	VOL-1 Lahar Early Warning Trigger System The US Geological Survey has designed a number of systems that automatically detect lahars as they descend neighboring valleys. These systems automatically trigger various types of early warning systems, such as sirens or telephone-based warning systems.	1, 2, 5	Lynden Fire Department	L	M	Local sources, and state and federal grants	UNKNOWN
Extreme Temperatures	No actions are currently being considered/All mitigation actions are discontinued, or complete.						
Flooding	<i>FL-a. Ongoing -- Incorporate Flood Mitigation in Local Planning.</i>	1, 5	City Planning Dept.	M	O	Local	
	<i>FL-b. Ongoing -- Form Partnerships to Support Floodplain Management.</i>	1	City Planning and Public Works Depts.	M	O	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>FL-c. Ongoing -- Limit or Restrict Development in Floodplain Areas.</i>	1, 3	City Planning, Building and Public Works Depts.	M	O	Local	
	<i>FL-d. Ongoing -- Improve Stormwater Management Planning.</i>	1, 3	City Planning Dept	M	O	Local	
	<i>FL-e. Ongoing -- Improve Flood Risk Assessment.</i>	1	City Public Works Dept	M	O	Local	
	<i>FL-f. Ongoing -- Join or Improve Compliance with NFIP.</i>	1	City Planning, Building and Public Works Depts.	M	O	Local	
	<i>FL-g. Ongoing -- Manage the Floodplain Beyond Minimum Requirements.</i>	1, 3	City Planning and Building Depts.	M	O	Local	
	<i>FL-h. Ongoing -- Establish Local Funding Mechanisms for Flood Mitigation.</i>	1, 3	County Flood Control Zone District	M	O	Local, County Flood Fund	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	FL-i. Ongoing -- Improve Stormwater Drainage System Capacity.	1	City Public Works Dept	M	O	Local	
	FL-j. Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures	1	City Public Works Dept	M	O	Local	
	FL-k. Ongoing -- Preserve Floodplains as Open Space.	1, 3	City Planning Dept	M	O	Local	
	FL-1 Protect City Hall/Police Station This building is subject to flooding and is also prone to major damage in an earthquake, given that the building pre-dates modern building codes. A new facility should be constructed outside the floodplain.	1, 5	Sumas Public Works Department	M	M	State or Federal grants	\$4.5 Million
	FL-2 Protect the Fire Station This building is subject to flooding. A new facility should be constructed outside the floodplain.	1, 5	Whatcom County Fire District # 14	M	M	State or federal grants	2.5 Million
	FL-3 Flood Corridor Residential Buy-Out In a large flood, the Cherry Street bridge over Johnson Creek is a major impediment to flow. Water is forced out of the Johnson	1, 2, 3	City of Sumas	M	L	State or federal grants	\$1 Million

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Creek channel, leading to worse inundation in the commercial and residential areas to the north and northeast. The bridge should be replaced at a higher elevation and with less supporting pilings.						
	FL-4 Cherry Street Bridge Replacement In a large flood, the Cherry Street bridge over Johnson Creek is a major impediment to flow. Water is forced out of the Johnson Creek channel, leading to worse inundation in the commercial and residential areas to the north and northeast. The bridge should be replaced at a higher elevation and with less supporting pilings.	1, 2, 3	WA State Department of Transportation	M	L	State or federal grants	\$10 Million
Landslide/ Erosion	No actions are currently being considered/All mitigation actions are discontinued, or complete.						
Land Subsidence	SU-a. Ongoing -- Map and Assess Vulnerability to Subsidence.	1,2	City Planning Dept.		O		
	SU-b. Ongoing -- Manage Development in High-Risk Areas.	1	City Building Dept.		O		

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Lightning	No actions are currently being considered/All mitigation actions are discontinued, or complete.						
Severe Storms	No actions are currently being considered/All mitigation actions are discontinued, or complete.						
Severe Wind	<i>SW-a. Ongoing -- Protect Power Lines and Infrastructure.</i>	1,5	City Public Works		O		
	<i>SW-b. Ongoing -- Retrofit Public Buildings and Critical Facilities.</i>	1,5	City Public Works		O		
Tornadoes	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Tsunami	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Wildfires	No actions are currently being considered/All mitigation actions are ongoing, discontinued, or complete.						
Winter Storms/	<i>WW-a. Ongoing -- Protect Buildings and Infrastructure.</i>	1	City Public Works Dept		O		
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Freezes (Severe Winter Weather)	<i>WW-b. Ongoing -- Protect Power Lines.</i>	1,5	City Public Works Dept		O		
	<i>WW-c. Ongoing -- Reduce Impacts to Roadways</i>	1,5	City Public Works Dept		O		
Multiple Hazards	<i>MU-a. Ongoing -- Assess Community Risk.</i>	1,2	City Planning and Public Works Depts		O		
	<i>MU-b. Ongoing -- Map Community Risk.</i>	2	City Planning Dept.		O		
	<i>MU-c. Ongoing -- Prevent Development in Hazard Areas.</i>	1	City Building and Planning Depts		O		
	<i>MU-d. Ongoing -- Adopt Development Regulations in Hazard Areas.</i>	1	City Building and Planning Depts.		O		
	<i>MU-e. Ongoing -- Limit Density in Hazard Areas.</i>	1	City Planning Dept.		O		
	<i>MU-f. Ongoing -- Integrate Mitigation into Local Planning.</i>	1,4	City Planning Dept.		O		
	<i>MU-g. Ongoing -- Strengthen Land Use Regulations.</i>	1	City Planning Dept.		O		
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>MU-h. Ongoing -- Monitor Mitigation Plan Implementation.</i>	1	City Planning and Public Works Depts		O		
	<i>MU-i. Ongoing -- Protect Structures.</i>	1	City Planning and Public Works Depts		O		
	<i>MU-j. Ongoing -- Protect Infrastructure and Critical Facilities.</i>	1,5	City Public Works Dept.		O		
	<i>MU-k. Ongoing --Increase Hazard Education and Risk Awareness.</i>	2	City Public Works Dept.		O		
Advanced Mitigation Projects (Dream List)	Natural Hazard Early Warning Systems	1,5					
	Cell Phone-Based Early Warning System. A computerized early warning system that automatically dials each landline telephone number within a specified area, and play a recorded message when the phone is answered is currently provided to the City by the Whatcom County Sheriff's Office Division of Emergency Management. A larger capacity system that can also contact cell phones through the use of a federally	2, 5	WCDEM/LFD			Local sources, and state and federal grants	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	licensed COG would help to address a variety of natural and manmade problems.						

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Sumas Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



City of Sumas Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
GENERAL: ALL HAZARDS						
<i>G-a. Ongoing -- Emergency preparedness education programs for schools.</i>						
<i>G-b. Ongoing -- Drills, exercises in homes, workplaces, classrooms, etc.</i>						
<i>G-c. Ongoing -- Distribution of severe weather guides, preparedness handbooks, brochures homeowner's retrofit guide, etc.</i>						
<i>G-d. Ongoing -- Newsletters and utility bill inserts. .</i>						
<i>G-e. Ongoing -- Adopt and Enforce Building Codes.</i>						
<i>Add New Action Items if Applicable</i>						
DAM/LEEVE FAILURES						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						
<i>D-a. Ongoing -- Assess Vulnerability to Drought Risk.</i>						
<i>D-b. Ongoing -- Monitor Drought Conditions.</i>						
<i>D-c. Ongoing -- Monitor Water Supply.</i>						
<i>D-e. Ongoing -- Plan for Drought.</i>						
<i>D-f. Ongoing -- Require Water Conservation During Drought Conditions.</i>						
<i>D-g. Ongoing -- Educate Residents on Water Saving Techniques.</i>						
EARTHQUAKES						



City of Sumas Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>EQ-a. Ongoing -- Incorporate Earthquake Mitigation into Local Planning.</i>						
<i>EQ-b. Ongoing -- Map and Assess Community Vulnerability to Seismic Hazards.</i>						
<i>EQ-c. Ongoing -- Conduct Inspections of Building Safety.</i>						
<i>EQ-d. Ongoing -- Protect Critical Facilities and Infrastructure.</i>						
<i>EQ-e Ongoing -- Protect Wellfield Backup Power</i>						Discontinued
<i>Add New Action Items if Applicable</i>						
VOLCANO						
<i>VOL-a. Ongoing -- Lahar Early Warning System.</i>						
VOL-1 Lahar Early Warning Trigger System						
<i>Add New Action Items if Applicable</i>						
FLOODING						
<i>FL-a. Ongoing -- Incorporate Flood Mitigation in Local Planning.</i>						
<i>FL-b. Ongoing -- Form Partnerships to Support Floodplain Management.</i>						
<i>FL-c. Ongoing -- Limit or Restrict Development in Floodplain Areas.</i>						
<i>FL-d. Ongoing -- Improve Stormwater Management Planning.</i>						
<i>FL-e. Ongoing -- Improve Flood Risk Assessment.</i>						
<i>FL-f. Ongoing -- Join or Improve Compliance with NFIP.</i>						



City of Sumas Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>FL-g. Ongoing -- Manage the Floodplain Beyond Minimum Requirements.</i>						
<i>FL-h. Ongoing -- Establish Local Funding Mechanisms for Flood Mitigation.</i>						
<i>FL-i Ongoing --. Improve Stormwater Drainage System Capacity.</i>						
<i>FL-j. Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures.</i>						
<i>FL-k. Ongoing -- Preserve Floodplains as Open Space.</i>						
FL-1 Protect City Hall/Police Station						
FL-2 Protect the Fire Station						
FL-3 Flood Corridor Residential Buy-Out						
FL-4 Cherry Street Bridge Replacement						
<i>Add New Action Items if Applicable</i>						
LANDSLIDES/EROSION						
<i>Add New Action Items if Applicable</i>						
LAND SUBSIDENCE						
<i>SU-a. Ongoing -- Map and Assess Vulnerability to Subsidence.</i>						
<i>SU-b. Ongoing -- Manage Development in High-Risk Areas.</i>						
<i>Add New Action Items if Applicable</i>						
TORNADOES						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						



City of Sumas Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Add New Action Items if Applicable						
WILDFIRES						
Add New Action Items if Applicable						
WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
WW-a. Ongoing -- Protect Buildings and Infrastructure.						
WW-b. Ongoing -- Protect Power Lines.						
WW-c. Ongoing -- Reduce Impacts to Roadways.						
Add New Action Items if Applicable						
EXTREME TEMPERATURES						
Add New Action Items if Applicable						
LANDSLIDE						
Add New Action Items if Applicable						
LIGHTNING						
Add New Action Items if Applicable						
SEVERE WIND						
SW-a. Ongoing -- Protect Power Lines and Infrastructure.						
SW-b. Ongoing -- Retrofit Public Buildings and Critical Facilities.						
Add New Action Items if Applicable						
MULTIPLE HAZARDS						



City of Sumas Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
<i>MU-a. Ongoing -- Assess Community Risk.</i>						
<i>MU-b. Ongoing -- Map Community Risk.</i>						
<i>MU-c. Ongoing -- Prevent Development in Hazard Areas.</i>						
<i>MU-d. Ongoing -- Adopt Development Regulations in Hazard Areas.</i>						
<i>MU-e. Ongoing -- Limit Density in Hazard Areas.</i>						
<i>MU-f. Ongoing -- Integrate Mitigation into Local Planning.</i>						
<i>MU-g. Ongoing -- Strengthen Land Use Regulations.</i>						
<i>MU-h. Ongoing -- Monitor Mitigation Plan Implementation</i>						
<i>MU-i. Ongoing -- Protect Structures.</i>						
<i>MU-j. Ongoing -- Protect Infrastructure and Critical Facilities.</i>						
<i>MU-k. Ongoing -- Increase Hazard Education and Risk Awareness.</i>						
<i>Add New Action Items if Applicable</i>						



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WHATCOM COUNTY

Contact Information

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Whatcom County Sheriff's Office
Division of Emergency Management
3888 Sound Way, Bellingham, WA 98226
(360) 778-7160

Approving Authority

County Executive Satpal Singh Sidhu & County Council Members
311 Grand Avenue, Suite 108
Bellingham, WA 98225
(360) 778-5200

Planning Process

Whatcom County began the process reviewing, updating, and adopting the 2021 Natural Hazards Mitigation Plan (NHMP or Plan) in the winter of 2020. Biweekly county wide meetings took place to guide Whatcom County through updating the plan. The planning process involved all local political subdivisions in Whatcom County as well as several special districts. The wider Whatcom County community was invited to participate through multiple webinars and outreach efforts.

Key Contributor List

- Wally Kost, Program Specialist, Whatcom County Sheriff's Office, Div. of Emergency Management
- John Gargett, Deputy Director, Whatcom County Sheriff's Office, Div. of Emergency Management
- Frances Burkhart, Program Specialist, Whatcom County Sheriff's Office, Div. of Emergency Management
- Roland Middleton, Whatcom County Public Works
- Paula Harris, River and Flood Manager, Whatcom County Public Works
- Andy Wiser, Geohazard Specialists/Planner, Whatcom County Planning and Development Services

The information contained in the Natural Hazards Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the available science, historical



occurrence, known hazards and technology available. This information is used as a planning tool and source document when the County updates other plans and programs, such as the following:

- Whatcom County Comprehensive Emergency Management Plan
- Shoreline Management Program (part of comprehensive plan)
- Transportation Plan (part of comprehensive plan)
- Urban Growth Areas SubArea Plans
- Zoning Code
- Capital Improvement Program for Whatcom County Facilities
- Whatcom County Comprehensive Emergency Management Plan
- Whatcom County Disaster Debris Management Plan
- Whatcom County Severe Storm Action Plan
- Whatcom County Tsunami Action Plan
- Whatcom County Mount Baker Action Plan

As information becomes available from other planning sources, actual incidents and events, or emerging threats that can enhance this Plan, that information will be incorporated through the periodic update process.

Plan Maintenance for Whatcom County

Each year, beginning in August, an annual review will be conducted by each community. Each community will update the status of their 2021-2025 mitigation actions using the annual review and progress table.

The Whatcom County Sheriff's Office Division of Emergency Management will initiate the action. Updates or changes to the plan will be annotated and submitted to the Whatcom County Sheriff's Office Division of Emergency Management. Should the plan require a major change(s) due to legislative or other action, a virtual public meeting will be coordinated by the Whatcom County Sheriff's Office Division of Emergency Management. The update process will be completed when a letter or amendment, as required, is sent to the Washington Military Department, Emergency Management Division Hazard Mitigation Officer stating completion of the review.

Public Outreach and Education



Program	Yes/No, Year Adopted	Description
Nonprofit organizations or local residents' groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.	Yes	<p>Map Your Neighborhood: prepares residents for the span of time when emergency services are unavailable during a disaster.</p> <p>CERT: Community Emergency Response Training prepares residents to safely and efficiently assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help.</p> <p>Volunteer Mobilization Center: The VMC is dedicated to being ready after a disaster to sign up spontaneous volunteers as temporary State emergency workers and matching their skills with emergency responders' needs.</p>
School-related programs for natural hazard safety	Yes, 2015-2021	Emergency preparedness education programs for school staff in multiple Whatcom County School Districts.
Public education or information program	Yes, Continuous	<p>Public Engagement: Drills, exercises in homes, workplaces, classrooms, etc.; Regular PSA and social media posts; Hazard "safety fairs"; hazard conferences, seminars; Distribution of severe weather guides, preparedness handbooks, brochures homeowner's retrofit guide, etc.; Direct Mailings; Regular newspaper articles</p> <p>Whatcom County Sheriff's Office Division of Emergency Management</p> <p>Annual correspondence: Notify residents reminding them of the need to be hazard prepared.</p>



SECTION 3: JURISDICTION PROFILES AND MITIGATION ACTION PLANS – WHATCOM COUNTY

StormReady certification	Yes, first adopted in 2003, and has been renewed every five years since with the most recent renewal being 2021.	Whatcom County is one of 14 counties in Washington State to be certified StormReady. StormReady uses a grassroots approach to help communities develop plans to handle all types of extreme weather.
Firewise Community certification	Yes, initially started in 2015.	There are six FireWise sites in Whatcom County: Clark's Point, The Town of Diablo, Lummi Island Scenic Estates, The Town of Newhalen, North Cascades Environmental Learning Center, and Paradise Lakes Country Club. The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. Any community that meets a set of voluntary criteria on an annual basis and retains an "In Good Standing Status" may identify itself as being a Firewise® Site.
Public-Private Partnership initiatives addressing disaster-related issues	Yes, 2015	The Whatcom County Sheriff's Office Division of Emergency Management has undertaken multiple disaster planning and response support with industries in Whatcom County, including response support and planning in 2020 for COVID-19 and the Custer Train Derailment.
Other		



Overview of Whatcom County, Hazards, and Assets

Geography of Whatcom County

Whatcom County Total Population	228,000 (2020 Census estimate)
Unincorporated Area Population	95,300 (2020 Census estimate)
Whatcom County Total Area	2,120 mi
Whatcom County Incorporated Area	95.4 mi
Whatcom County Unincorporated Area	2,024.6 mi



Presence of Hazards and their Impacts in Whatcom County

Since its establishment in 1854, Whatcom County has experienced many of the hazards in this Plan. As recently as January of 2020, Whatcom County faced flooding costing millions of dollars in damages, across the County, with specific impact in the Sumas drainage. There have been four FEMA disaster declarations by Whatcom County from January 2016 to June 2021, including:

Declaration Year	Incident Date	Designation	Title	Individual Assistance	Public Assistance ²
2017	30-Jan-2017 thru 22-Feb-2017	DR-4309-WA	Severe Winter Storms, Flooding, Landslides, and Mudslides in 2017	x	✓ Types A, B, C, D, E, F, and G
2019	10-Dec-2018 thru 24-Dec-2018	DR-4418-WA	Straight-Line Winds, Flooding, Landslides, and Tornado	x	✓ Types A, B, C, D, E, F, and G
2020	20-Jan-2020 thru 10-Feb-2020	DR-4539-WA	Severe Storms, Flooding, Landslides, and Mudslides	x	✓ Types A, B, C, D, E, F, and G
2020	22-Mar-2020 ¹ thru unknown	DR-4481-WA	Covid-19 Pandemic	✓ (crisis counseling; funeral assistance)	✓ Type B

¹Emergency declaration on 13-Mar-2020, superseded by disaster declaration on 22-Mar-2020.

²Public Assistance Types: A-debris removal, B-emergency protective measures, C-permanent work (roads and bridges), D-permanent work (water control facilities), E-permanent work (buildings and equipment), F-permanent work (utilities), G- permanent works (other) , H-fire management.

Since 2016, Whatcom County Unincorporated has grown by roughly 5,000 residents. This growth has increased the threat of natural hazards, particularly wildfires in the wildland urban interface.

In the table below is a list of the major hazards that effect Whatcom County. The second column provides the percentage of Whatcom County's total area that is exposed to each hazard. The third column indicates the severity of anticipated impacts to community function, considering the credible worst-case hazard scenario. Severity of anticipated impacts considers



effects on basic community function such as shelter, transportation, utilities, commerce, industry, agriculture, education, health, recreation, and cultural identity. Severity ranges from none to extreme, as shown in the key below the table. Finally, the last column of the table describes where the hazard impacts the community and which services the hazard would most significantly impact.



	Hazard	% area Exposed	Severity of Anticipated Impacts	Hazard Descriptions
Geological	Earthquake	86.4%	Moderate to High	The risk of earthquakes to the county is moderate to high. Shorelines, wetlands and river/stream beds are especially subject to damage through liquefaction. There are also potential threats from landslides impacting transportation routes. Structural damage could be moderate to high for many older structures in Whatcom County.
	Liquefaction	25.5%	Moderate to High	The loss of intergranular strength in saturated, loosely-packed sediment due to elevated pore pressures typically generated by seismic shaking during large magnitude earthquakes. Liquefaction can result in a loss of foundation bearing support and significant building damage, as well as lateral spreading, sand boils, and excessive ground settlement with associated disruption of utilities, roadway systems, and infrastructure.
	Landslide	5.8%	Moderate	Landslides can affect many places throughout the county, caused destruction to infrastructure, property, and interrupting transportation. Landslides could be caused by earthquakes or erosion, including excess rainfall. Mount Baker, the Chuckanut Mountains, and the Nooksack are just some of the areas susceptible to landslides.
	Volcano	33.9%	High	The principal threat from Mount Baker are lahar flows. Lahar flows to the west will impact the Nooksack drainages, with the potential for the greatest impact in the Sumas Plain north to British Columbia. Lahar flows to the east will, and have (1975), threatened the Baker River project



				dams. In 2019 it was estimated that the damage from an eruption of Mount Baker could reach 12-15 billion dollars in damage and long-term impact.
	Tsunami	1.2%	Low	All Whatcom County shorelines are at risk of tsunami damage based on current modeling, however the only area in unincorporated Whatcom County where evidence of a tsunami has been found is in Birch Bay at Birch Bay State Park.
	Mine Hazards	0.1%	Low	Mine hazards are minimal in Whatcom County and generally the mines are deep enough that even a collapse of the shafts would have minimal impact on the surface. Coal mining occurred in Whatcom County over 100 years ago, but there are no active coal mines since then.
Hydrological	Flooding	4.8%	Moderate	<p>The Nooksack River is the primary river basin subject to flooding in Whatcom County that causes significant impacts, however there are other rivers and creeks that cause flooding, including Johnson Creek, Sumas River, and Jones Creek. All Whatcom County shorelines are at risk of coastal flooding based on actual events over the last 100 years.</p> <p>The communities in unincorporated Whatcom County impacted by coastal flooding are Sandy Point, Birch Bay, Blaine, Point Roberts, and Lummi Peninsula and Lummi Island. Damages have included structural damage to residences, seawalls and transportation as large debris is carried by waves hitting the shoreline, inundation damage to structures, and debris accumulation and flooding of roadways. In December of 2018 over 3.5 million dollars in damage occurred in Birch Bay and Blaine from coastal flooding.</p>



Meteorological	Wildfire	12.3%	Moderate	Certain communities at risk have been identified, as well as levels of fire risk. Smaller communities on the Mt Baker Highway, as well as residents around the North and South shore of Lake Whatcom, along Highway 2 and 542, Pt. Roberts, and Lummi Island are some of the the WUI intermix and interface areas and at the highest risk.

Severity Scale: **None** = no impact to community function

Low = minor degradation of community functions, not widespread

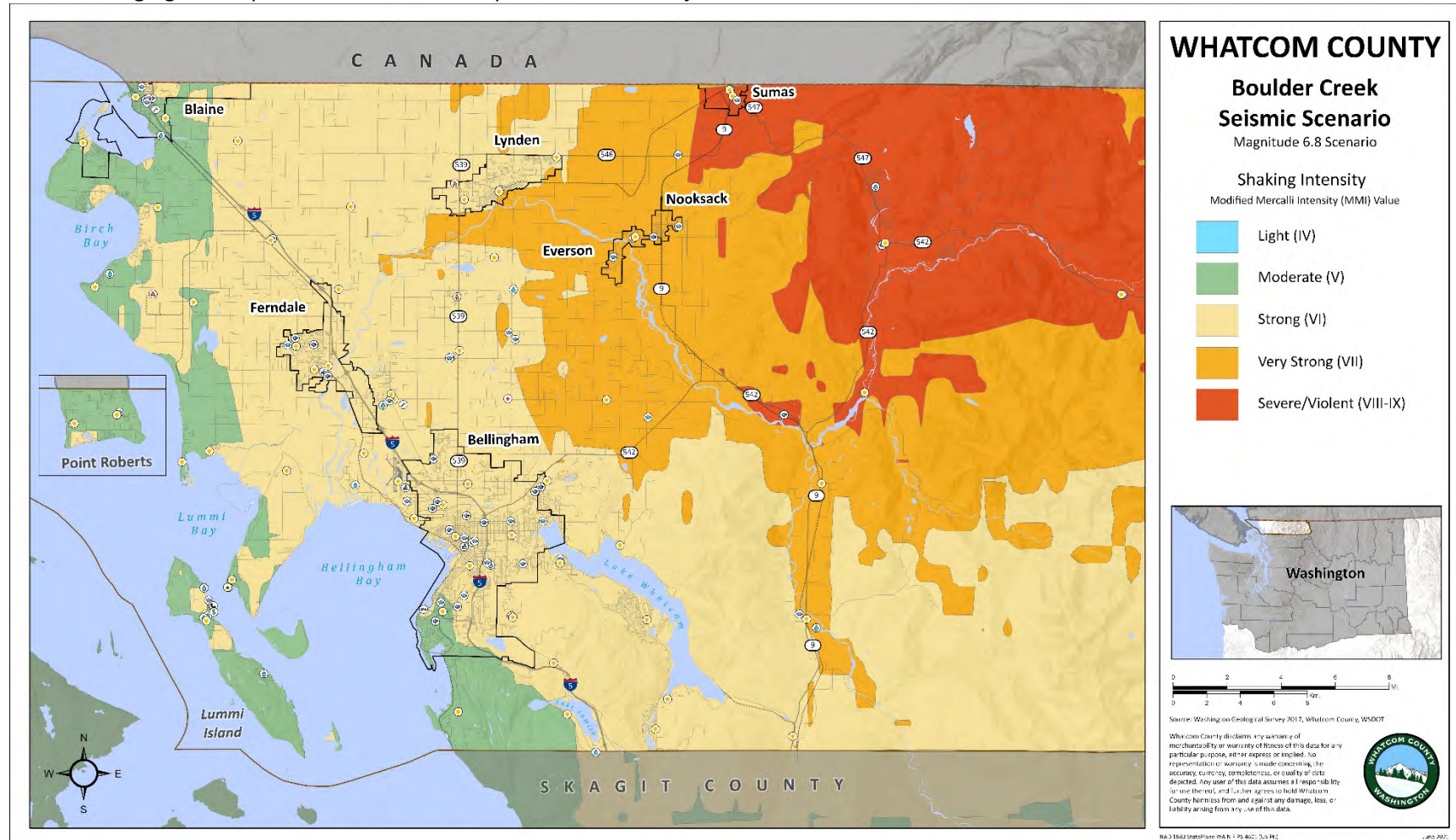
Moderate = moderate degradation over multiple weeks or widespread

High = degradation or loss over many weeks, widespread

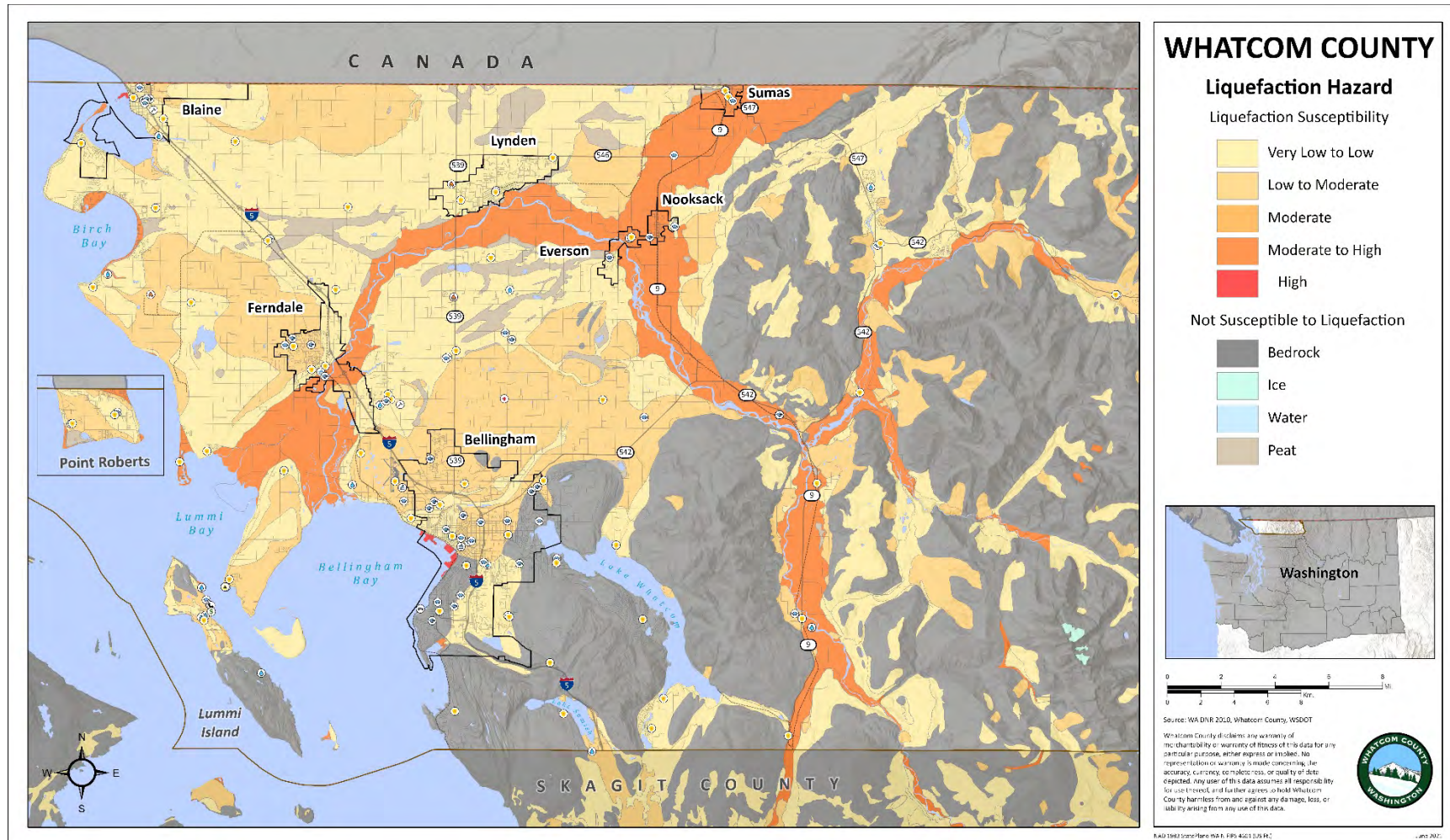


Natural Hazard Maps

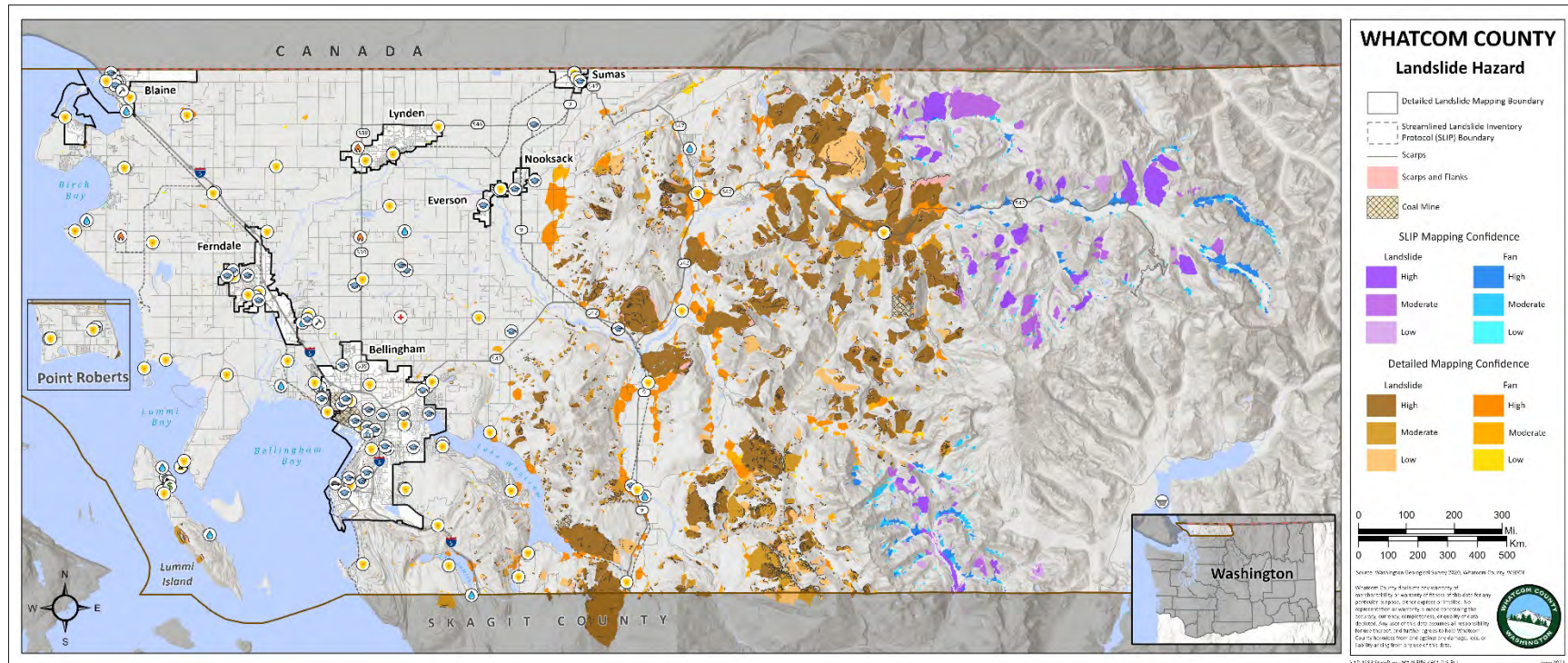
The following figures depict the natural hazards present within the jurisdiction.



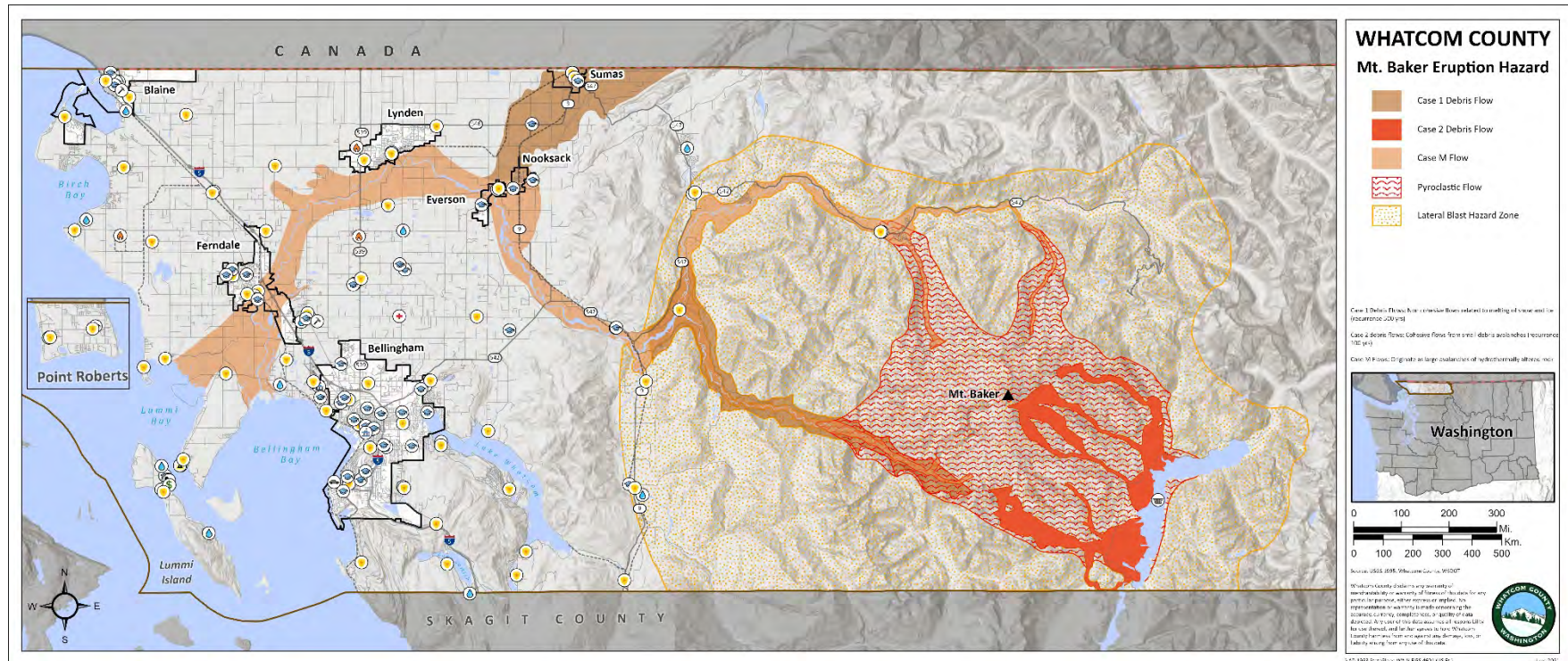
Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.



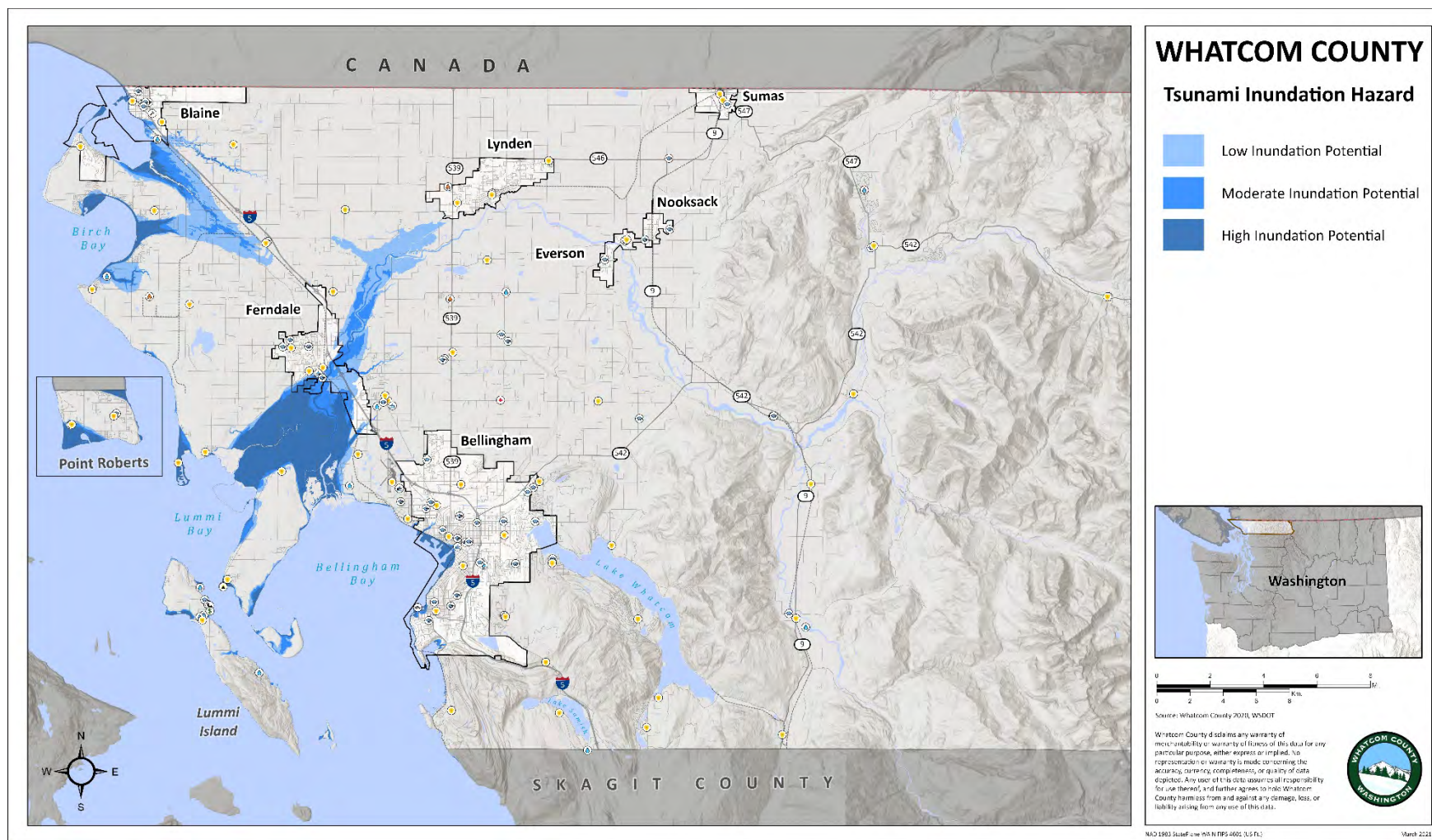
Washington Department of Natural Resources (WA DNR) 2010 liquefaction susceptibility data. This feature class is part of a geodatabase that contains statewide ground response data for Washington State.



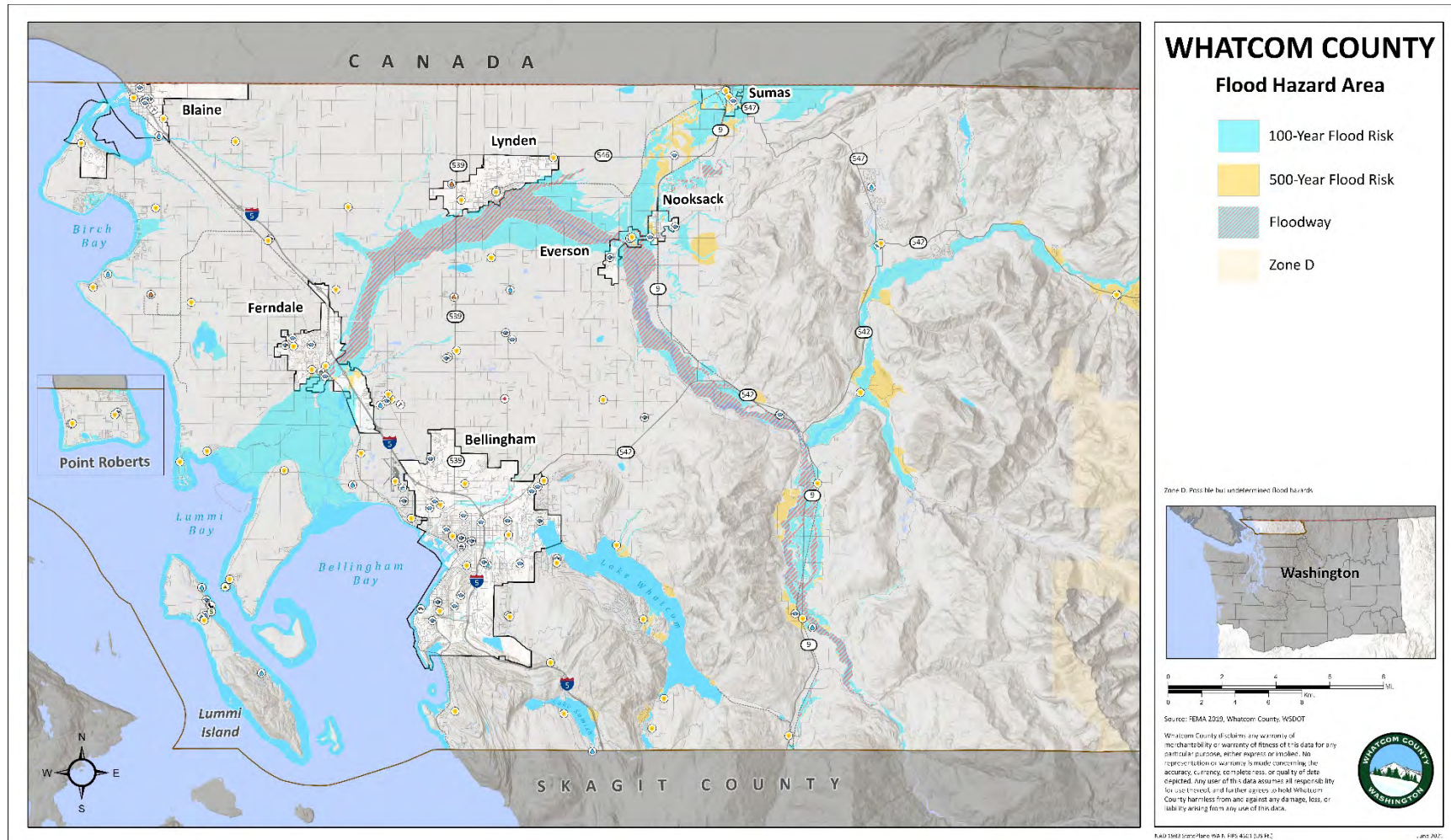
Washington Geological Survey (WGS) 2020 Washington landslide inventory data compiled following streamline landslide mapping protocol (SLIP). SLIP was developed by the WGS's Landslide Hazards Program to help geologists rapidly map landslide landforms from lidar. This data shows both detailed mapping and SLIP landslide data.



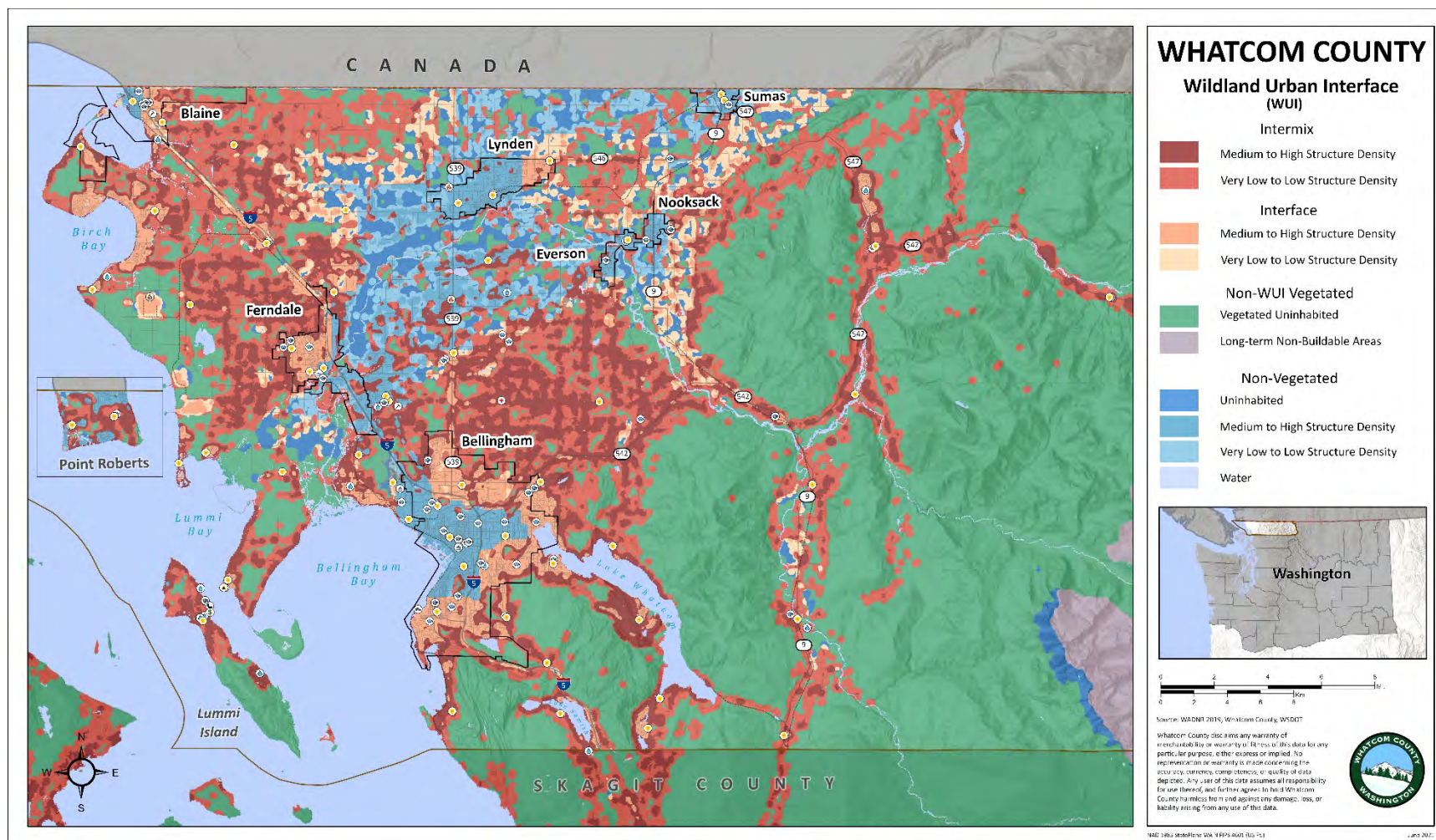
USGS Hazards from Future Activity of Mount Baker, WA (1995) data shows different volcanic flows. Case M flows originate as large avalanches of hydrothermally altered rock. Case 1 debris flows are non-cohesive flows related to melting of snow and ice, with a recurrence of 500 years. Case 2 debris flows are cohesive flows from small debris avalanches, with a recurrence of 100 years.



Whatcom County 2020 tsunami inundation data. Assumes, magnitude 9.0 Cascadia Subduction Zone earthquake-induced tsunami scenario. This scenario predicts a maximum wave height of about 9.6 feet, which could come on top of a 10 ft high tide. Additionally, tsunami inundation can be “funneled” into bays, river and stream deltas, pushing water well inland of the coast and past 20 ft elevation.



FEMA 2019 flood hazard data showing 100-year flooding, 500-year flooding, floodways, and flood zones. FEMA flood data includes both riverine and coastal flooding.



Washington Department of Natural Resources (WA DNR) 2019 mapped data of Washington's Wildland Urban Interface (WUI). The WUI displays areas of WA where structures and wildland overlap with specific structure densities.



Whatcom County Critical Facility List

While this section of the Whatcom County Natural Hazards Mitigation Plan focuses on unincorporated Whatcom County, the list of critical facilities includes all critical facilities in the county, whether located in the unincorporated section of the county or within a city limit. First response critical facilities, in particular, engage in mutual aid; fire and police stations in a city also support response in unincorporated county. Water and sewage pumping stations and treatment sites are often located in unincorporated county while servicing cities and vis-versa. School district boundaries do always follow city boundaries; during a disaster, schools may serve as educational site and/or mass care sites and serve residents beyond their traditional school catchment area.

Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
Columbia Valley Water District	LUS	3	6229 Azure Way, Maple Falls, WA 98266		Water District
Beach School Elementary School	EF	1	3786 Centerview Road		Shelter for Lummi Island Residents
Fairhaven Alaskan Ferry Terminal	EF	3	355 Harris Ave, Bellingham, WA 98225		Southern terminus of Alaska Marine Highway system.
Gooseberry Point Ferry Dock	EF	3	Lummi View Drive		Ferry dock for Lummi Island
Isle Aire Beach Association	LUS	2	P.O. Box 211		Water District on Lummi Island
LISECC	LUS	2	1211 Island Drive		Water District on Lummi Island
Lummi Island Dock	EF	3	N Nugent Road		Ferry dock for Lummi Island
Lummi Island Grange	EF	1	2210 N. Nugent Road		Shelter for Lummi Island Residents
Lummi Island Post Office	EF	1	2211 N Nugent Road		Post Office for Lummi Island
Lummi Point Water	LUS	3	3766 Blizard Rd.		Water District on Lummi Island
Owners Association	LUS	3	2174 Granger Way		Utility: Water



Beach Club Condos					
Puget Sound Energy Switch	LUS	3	Gooseberry Point		Utility: Power for Lummi Island
Sunset Water and Maintenance Association	LUS	3	2040 Granger Way		Utility: Water
					Private contractor, not essential
The Islander	EF	1	2130 S. Nugent Road		Lummi Island Store
Vander Yacht Propane	LUS	3	6811 WA-539, Lynden, WA 98264		Largest propane distributor in Whatcom County with thousands of customers and serves the San Juan Islands
Whatcom Farmers Co-op	LUS	3	2041 Agronomy Way, Lynden, WA 98264		propane distributor in Whatcom County with thousands of customers
Lummi Law & Order	EF	3	Lummi Reservation		Lummi Police
Nooksack Police Department	EF	3	111 W Main St, Everson, WA 98247		Nooksack Police
Northwest Water Association	LUS	3	5207 Graveline Rd, Bellingham, WA 98226		Utility: Water
Pole Road Water Association	LUS	3	6912 Hannegan Rd #105, Lynden, WA 98264		Utility: Water
Alderwood Elementary School	EF	1	3400 Hollywood Avenue, Bellingham, WA 98225-1134		School, possible shelter, distribution site or staging area.
Birchwood Elementary School	EF	1	3200 Pinewood Avenue, Bellingham, WA 98225-1436		School, possible shelter, distribution site or staging area.
Carl Cozier Elementary School	EF	1	1330 Lincoln Street, Bellingham WA 98229-6238		School, possible shelter, distribution site or staging area.



Columbia Elementary School	EF	1	2508 Utter Street, Bellingham WA 98225-2708		School, possible shelter, distribution site or staging area.
Cordata Elementary School	EF	1	4420 Aldrich Road, Bellingham, WA 98226-9680		School, possible shelter, distribution site or staging area.
Geneva Elementary School	EF	1	1401 Geneva Street, Bellingham WA 98229-5218		School, possible shelter, distribution site or staging area.
Happy Valley Elementary School	EF	1	1041 24th Street, Bellingham WA 98225-8603		School, possible shelter, distribution site or staging area.
Lowell Elementary School	EF	1	935 14th Street, Bellingham WA 98225-6305		School, possible shelter, distribution site or staging area.
Northern Heights Elementary School	EF	1	4000 Magrath Road, Bellingham WA 98226-1729		School, possible shelter, distribution site or staging area.
Parkview Elementary School	EF	1	3033 Coolidge Drive, Bellingham WA 98225-1803		School, possible shelter, distribution site or staging area.
Roosevelt Elementary School	EF	1	2900 Yew Street, Bellingham WA 98226-6127		School, possible shelter, distribution site or staging area.
Silver Beach Elementary School	EF	1	4101 Academy Street, Bellingham WA 98226-4443		School, possible shelter, distribution site or staging area.
Sunnyland Elementary School	EF	1	2800 James Street, Bellingham WA 98225-2639		School, possible shelter, distribution site or staging area.
Wade King Elementary School	EF	1	2155 Yew Street Road, Bellingham, WA 98229-8812		School, possible shelter, distribution site or staging area.
Fairhaven Middle School	EF	1	110 Parkridge Road, Bellingham WA 98225-7907		School, possible shelter, distribution site or staging area.
Kulshan Middle School	EF	1	1250 Kenoyer Drive, Bellingham WA 98229-2346		School, possible shelter, distribution site or staging area.



Shuksan Middle School	EF	1	2717 Alderwood Avenue, Bellingham WA 98225-1222		School, possible shelter, distribution site or staging area.
Whatcom Middle School	EF	1	810 Halleck Street, Bellingham WA 98225-3243		School, possible shelter, distribution site or staging area.
Bellingham High School	EF	1	2020 Cornwall Avenue, Bellingham WA 98225-3648		School, possible shelter, distribution site or staging area.
Options High School	EF	1	2015 Franklin Street, Bellingham WA 98225-4220		School, possible shelter, distribution site or staging area.
Sehome High School	EF	1	2700 Bill McDonald Parkway, Bellingham WA 98225-5909		School, possible shelter, distribution site or staging area.
Squalicum High School	EF	1	3773 E McLeod Road, Bellingham WA 98226-7728		School, possible shelter, distribution site or staging area.
Blaine High School	EF	1	1055 H Street Blaine, WA 98230		School, possible shelter, distribution site or staging area.
Blaine Middle School	EF	1	975 H Street Blaine, WA 98230		School, possible shelter, distribution site or staging area.
Blaine Elementary School	EF	1	836 Mitchell Avenue Blaine, Washington 98230		School, possible shelter, distribution site or staging area.
Blaine Primary School	EF	1	820 Boblett Street Blaine, WA 98230		School, possible shelter, distribution site or staging area.
Point Roberts Primary School	EF	1	2050 Benson Road Pt. Roberts, WA 98281		School, possible shelter, distribution site or staging area.
Irene Reither Elementary School	EF	1	954 East Hemmi Road Everson, WA 98247		School, possible shelter, distribution site or staging area.



Meridian Middle School	EF	1	861 Ten Mile Road Lynden, WA 98264		School, possible shelter, distribution site or staging area.
Meridian High School	EF	1	194 West Laurel Road Bellingham, WA 98226		School, possible shelter, distribution site or staging area.
Acme Elementary School	EF	1	5200 Turkington Rd, Acme, WA 98220		School, possible shelter, distribution site or staging area.
Harmony Elementary School	EF	1	5060 Sand Rd, Bellingham, WA 98226		School, possible shelter, distribution site or staging area.
Kendall Elementary School	EF	1	7547 Kendall Rd, Maple Falls, WA 98266		School, possible shelter, distribution site or staging area.
Mt. Baker Junior/Senior High School	EF	1	4936 Deming Rd Deming, WA 98244		School, possible shelter, distribution site or staging area.
Ferndale High School	EF	1	5830 Golden Eagle Drive PO Box 428 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Horizon Middle School	EF	1	2671 Thornton Road PO Box 1769 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Vista Middle School	EF	1	6051 Vista Drive PO Box 1328 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Beach Elementary School	EF	1	3786 Centerview Road Ferndale WA 98262		School, possible shelter, distribution site or staging area.
Cascadia Elementary School	EF	1	6175 Church Road PO Box 2009 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Central Elementary School	EF	1	5610 Second Avenue PO Box 187 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Custer Elementary School	EF	1	7660 Custer School Road Custer WA 98240		School, possible shelter, distribution site or staging area.



Eagleridge Elementary School	EF	1	2651 Thornton Road PO Box 1127 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
Skyline Elementary School	EF	1	2225 Thornton Road PO Box 905 Ferndale WA 98248		School, possible shelter, distribution site or staging area.
North Bellingham Learning Center (Ferndale Schools)	EF	1	5275 Northwest Drive Bellingham, WA 98226		School, possible shelter, distribution site or staging area.
Nooksack Valley High School	EF	1	3326 E. Badger Rd. Everson, WA 98247		School, possible shelter, distribution site or staging area.
Nooksack Valley Middle School	EF	1	404 W. Columbia Everson, WA 98247		School, possible shelter, distribution site or staging area.
Everson Elementary School	EF	1	216 Everson Goshen Rd Everson, WA 98247		School, possible shelter, distribution site or staging area.
Nooksack Elementary School	EF	1	3333 Breckenridge Rd Everson, WA 98247		School, possible shelter, distribution site or staging area.
Sumas Elementary School	EF	1	1024 Lawson St Sumas, WA 98295		School, possible shelter, distribution site or staging area.
Whatcom County Search & Rescue	EF	3	1041 W Smith Rd, Bellingham, WA 98226		
Seattle City Light Ross Dam	LUS	3	Newhalem		Utility: Power
Seattle City Light Diablo Dam	LUS	3	Newhalem		Utility: Power
Seattle City Light Gorge Dam	LUS	3	Newhalem		Utility: Power
Puget Sound Energy Upper Baker Dam	LUS	3	Baker Lake		Utility: Power
Water District #2 – Bellingham	LUS	3	Bellingham		Utility: Water



Water District #7 – Bellingham	LUS	3	Bellingham		Utility: Water
Water District #4 – Point Roberts	LUS	3	Point Roberts		Utility: Water
Water District #10 – Geneva/Sudden Valley	LUS	3	Bellingham		Utility: Water
Water District #12 – Lake Samish	LUS	3	Bellingham		Utility: Water
Water District #13 – Maple Falls	LUS	3	Maple Falls		Utility: Water
Water District #14 – Glacier	LUS	3	Bellingham		Utility: Water
Water District #18 – Acme	LUS	3	Acme		Utility: Water
BP-Cherry Point Refinery	Fuel	2	4519 Grandview Road		
Birch Bay Water and Sewer (District 8)	LUS	3	7096 Pt. Whitehorn Road		Utility: Water
Birch Bay Water Connection	LUS	3	2701 Bell Road		Utility: Water
Whatcom County Sheriff's Office Emergency Coordination Center	EF	3	3888 Sound Way Bellingham, WA 98226		Critical Government Facility
Whatcom County Sheriff's Office	EF	3	311 Grand Avenue Public Safety Office Bellingham, WA 98225		Critical Government Facility
Fire Station 01 – Bellingham Fire Station	EF	3	1800 Broadway St, Bellingham, Wa 98225		Critical Government Facility



Fire Station 02 – Bellingham Fire Station	EF	3	1590 Harris Ave, Bellingham, Wa 98225		Critical Government Facility
Fire Station 03 – Bellingham Fire Station	EF	3	1111 Billy Frank Jr St, Bellingham, Wa 98225		Critical Government Facility
Fire Station 04 – Bellingham Fire Station	EF	3	2306 Yew St, Bellingham, Wa 98229		Critical Government Facility
Fire Station 05 – Bellingham Fire Station	EF	3	3314 Northwest Ave, Bellingham, Wa 98225		Critical Government Facility
Fire Station 06 – Bellingham Fire Station	EF	3	4060 Deemer Rd, Bellingham, Wa 98226		Critical Government Facility
Fire Station 10 – Bellingham Fire Station	EF	3	858 E Smith Rd, Bellingham, Wa 98226		Critical Government Facility
Fire Station 31 – Bellingham Fire / WCFD 08 Station	EF	3	752 Marine Dr, Bellingham, Wa 98225		Critical Government Facility
Fire Station 34 – Bellingham Fire / WCFD 08 Station	EF	3	2600 Mackenzie Rd, Bellingham, Wa 98226		Critical Government Facility
Fire Station 33 – Bellingham Fire / WCFD 08 Station	EF	3	4504 Curtis Rd, Bellingham, Wa 98229		Critical Government Facility
Fire Station 32 - Bellingham International Airport ARFF	EF	3	2005 West Bakerview Road, Bellingham, WA 98226		Critical Government Facility
Fire Station 96 – WCFD 19	EF	3	9953 Mt Baker Hwy Deming Wa 98244		Critical Government Facility
Fire Station 71 – Lynden Fire Department	EF	3	203 19th St Lynden Wa 98264		Critical Government Facility
Fire Station 75 – Lynden Fire Department	EF	3	215 4th St Lynden Wa 98264		Critical Government Facility



Fire Station 72 – Lynden Fire Department	EF	3	1507 E Badger Rd Lynden Wa 98247		Critical Government Facility
Fire Station 13 – North Whatcom Fire Rescue	EF	3	2308 E Smith Rd, Bellingham, Wa 98226		Critical Government Facility
Fire Station 11 – North Whatcom Fire Rescue	EF	3	3131 Y Road Bellingham Wa 98226		Critical Government Facility
Fire Station 12 – North Whatcom Fire Rescue	EF	3	4142 Britton Loop Bellingham Wa 98226		Critical Government Facility
Fire Station 36 – North Whatcom Fire Rescue	EF	3	633 E Wiser Lake Rd Lynden Wa 98264		Critical Government Facility
Fire Station 61 – North Whatcom Fire Rescue	EF	3	9408 Odell Rd Blaine Wa 98230		Critical Government Facility
Fire Station 62 – North Whatcom Fire Rescue	EF	3	9001 Semiahmoo PkwY Blaine Wa 98230		Critical Government Facility
Fire Station 63 – North Whatcom Fire Rescue	EF	3	4581 Birch Bay Lynden Rd Blaine Wa 98230		Critical Government Facility
Fire Station 64 – North Whatcom Fire Rescue	EF	3	7625 Custer School Rd Custer Wa 98240		Critical Government Facility
Fire Station 65 – North Whatcom Fire Rescue	EF	3	3401 Haymie Rd Blaine Wa 98230		Critical Government Facility
Fire Station 68 – North Whatcom Fire Rescue	EF	3	8118 N Enterprise Rd Custer Wa 98240		Critical Government Facility



Fire Station 69 – North Whatcom Fire Rescue	EF	3	6028 Guide Meridian Bellingham Wa 98226		Critical Government Facility
Fire Station 56 – Sandy Point Fire	EF	3	4332 Sucia Dr Ferndale Wa 98248		Critical Government Facility
Fire Station 57 – Sandy Point Fire	EF	3	3685 Prevost Way Ferndale Wa 98248		Critical Government Facility
Fire Station 16 – South Whatcom Fire Authority	EF	3	2095 Yew St Rd Bellingham Wa 98229		Critical Government Facility
Fire Station 18 – South Whatcom Fire Authority	EF	3	686 Chuckanut Dr Bellingham Wa 98229		Critical Government Facility
Fire Station 21 – South Whatcom Fire Authority	EF	3	4518 Cable St Bellingham Wa 98229		Critical Government Facility
Fire Station 22 – South Whatcom Fire Authority	EF	3	2050 Lake Whatcom Blvd Bellingham Wa 98229		Critical Government Facility
Fire Station 28 – South Whatcom Fire Authority	EF	3	5170 Samish Way Bellingham Wa 98229		Critical Government Facility
Fire Station 29 – South Whatcom Fire Authority	EF	3	705 W Lake Samish Dr Bellingham Wa 98229		Critical Government Facility
Fire Station 80 – WCFD 01	EF	3	101 E Main St Everson Wa 98247		Critical Government Facility
Fire Station 81 – WCFD 01	EF	3	3740 Mt Baker Hwy Everson Wa 98247		Critical Government Facility
Fire Station 58 – WCFD 05	EF	3	2030 Benson Rd Point Roberts Wa 98281		Critical Government Facility
Fire Station 59 – WCFD 05	EF	3	1431 Gulf Rd Point Roberts Wa 98281		Critical Government Facility



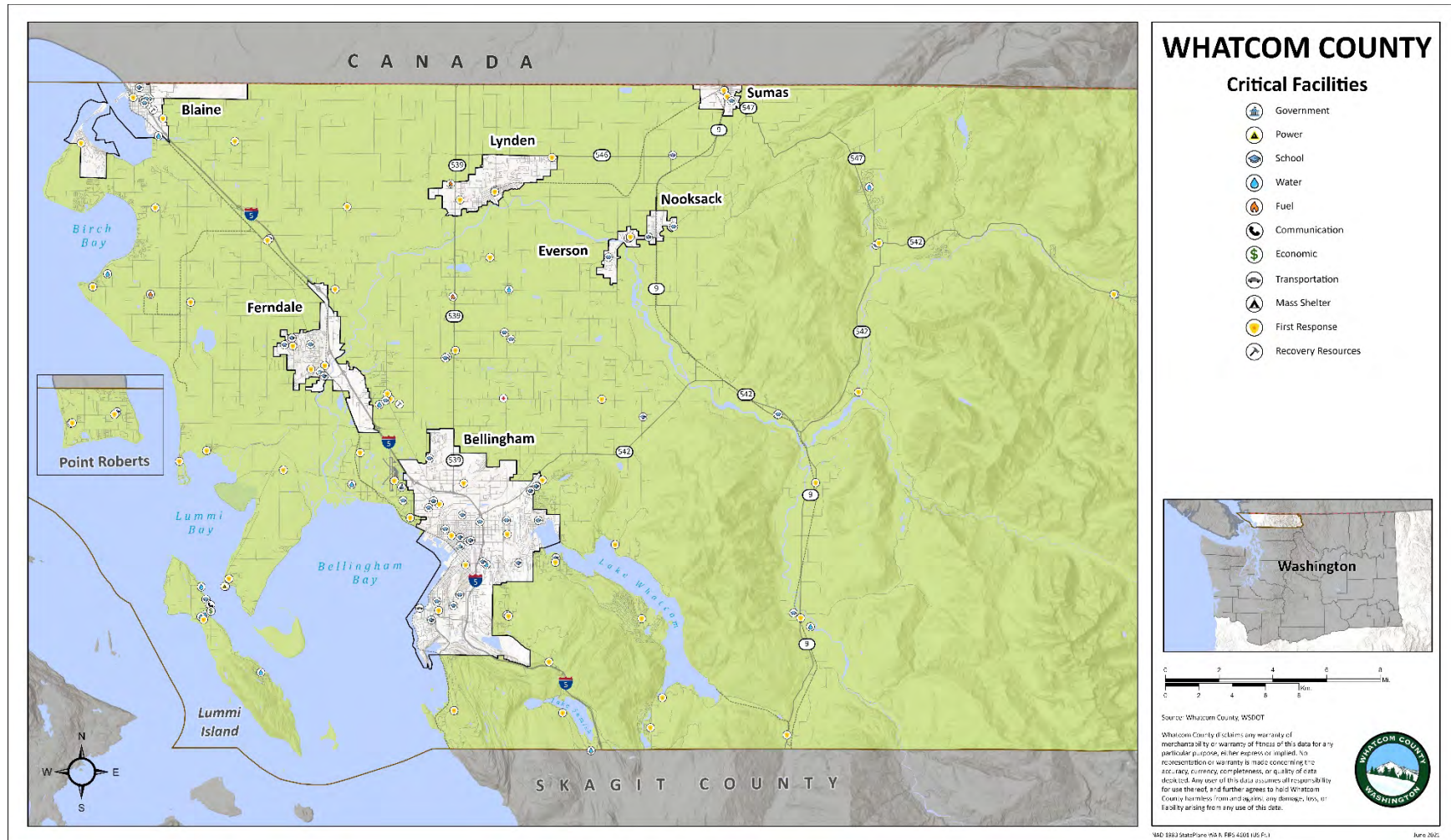
Fire Station 41 – WCFD 07	EF	3	2020 Washington St Ferndale Wa 98248		Critical Government Facility
Fire Station 42 – WCFD 07	EF	3	4047 Brown Rd Ferndale Wa 98248		Critical Government Facility
Fire Station 43 – WCFD 07	EF	3	5368 Northwest Dr Bellingham Wa 98226		Critical Government Facility
Fire Station 44 – WCFD 07	EF	3	5491 Grandview Rd Blaine Wa 98230		Critical Government Facility
Fire Station 45 – WCFD 07	EF	3	1886 Grandview Rd Ferndale Wa 8248		Critical Government Facility
Fire Station 46 – WCFD 07	EF	3	6081 Church Rd Ferndale Wa 98248		Critical Government Facility
Fire Station 38 – Lummi Island	EF	3	3809 Legoe Bay Rd Lummi Island Wa 98262		Critical Government Facility
Fire Station 91 – WCFD 14	EF	3	841 Sumas Ave Sumas Wa 98295		Critical Government Facility
Fire Station 92 – WCFD 14	EF	3	7528 Kendall Rd Maple Falls Wa 98266		Critical Government Facility
Fire Station 93 – WCFD 14	EF	3	5640 Mosquito Lake Rd Deming Wa 98244		Critical Government Facility
Fire Station 86 – WCFD 16	EF	3	5491 Potter Rd Acme Wa 98220		Critical Government Facility
Fire Station 87 – WCFD 16	EF	3	2036 Valley Hwy Acme Wa 98220		Critical Government Facility
Fire Station 88 – WCFD 16	EF	3	319 Valley Hwy Acme Wa 98220		Critical Government Facility
Fire Station 25 – WCFD 18	EF	3	3250 South Bay Dr Sedro Woolley Wa		Critical Government Facility
Fire Station 26 – WCFD 18	EF	3	431 Cain Lake Rd Sedro Woolley Wa 98284		Critical Government Facility
Ferndale Police Department	EF	3	2220 Main St, Ferndale, WA 98248		Critical Government Facility
Blaine Police Department	EF	3	322 H St, Blaine, WA 98230		Critical Government Facility
Lynden Police Department	EF	3	203 19th St, Lynden, WA 98264		Critical Government Facility
Sumas Police Department	EF	3	433 Cherry Street, Sumas, WA 98295		Critical Government Facility



Everson Police Department	EF	3	111 W Main St, Everson, WA 98247		Critical Government Facility
Whatcom County Public Works	EF	3	901 East Smith Road, Bellingham, WA 98226		Critical Government Facility
Sumas Public Works Department	EF	3	433 Cherry Street, Sumas, WA 98295		Critical Government Facility
Ferndale Public Works Department	EF	3	2095 Main St, Ferndale, WA 98248		Critical Government Facility
Blaine Public Works Department	EF	3	1200 Yew Ave, Blaine, WA 98230		Critical Government Facility
Lynden Public Works Department	EF	3	300 4th St, Lynden, WA 98264		Critical Government Facility
Everson Public Works Department	EF	3	111 West Main Street, Everson, WA 98247		Critical Government Facility

Facility Type: EF = Essential Facility; HMF = Hazardous Materials Facility; HPL = High Potential Loss; LUS = Lifeline Utility System

Significance to community function: 1=Moderate; 2= High; 3 =Very High



Map of critical facilities identified by Unincorporated Whatcom County. Across Whatcom County, critical facilities fell into 15 categories. Unique categories developed for this plan update include mass shelter, assisted living, and recovery resources. Mass shelter includes facilities such as fairgrounds and community centers. Recovery resources are facilities that are required post-hazard event, for example public works and private construction companies. Not all jurisdictions identified or included critical facilities in each category.



Critical Facility Rankings for the Whatcom County

The table below indicates whether each critical facility falls within known hazard zones for earthquake, liquefaction, landslide, tsunami, volcano, riverine flooding, coastal flooding and wildfire zones. A rank assessment in the last column indicates how the relative risk of community impact. This ranking considers the significance of the facility to the community and the number of hazard zones the facility is within. The frequency of each hazard is also considered, such that being in a low frequency hazard zone would receive a lower ranking than that same facility being in a high frequency hazard zone. Ranking is on a scale of 1 to 10, with 1 being the facility with the highest-ranking score, and 10 being a facility with the lowest ranking score in the jurisdiction.

$$\text{Rank} = \text{Significance} * \left[\frac{\text{EQ_Zone}}{\text{EQ_Freq}} + \frac{\text{LQ_Zone}}{\text{LQ_Freq}} + \frac{\text{LS_Zone}}{\text{LS_Freq}} + \dots + \frac{\text{WF_Zone}}{\text{WF_Freq}} \right]$$

Ranking value will be from 0.0 to 1.0, scaled to the highest ranking in the jurisdiction.

Significance: 1=moderate; 2=high; 3=very high, as assessed in the critical facilities list in the previous section

Zone: 0=facility not in hazard zone; 1 = facility in the hazard zone

Frequency (e.g. EQ_Freq, LQ_Freq) is the most difficult variable to which to assign a value. Frequency varies based upon the magnitude of a hazard event and varies from one place to another. It was not possible within the time constraints to assess frequency of hazard at each critical facility location. Instead, a qualitative assessment of the hazard frequency across the entire county was made, as shown in the chart below.

Description	Freq Value used in formula	Hazards
Frequent, occurring on the order of decades	3	Riverine flooding (FL); Coastal flooding (COA)
Rare, occurring on the order of centuries	2	Earthquake (EQ); Liquefaction (LQ); Landslide (LS); Wildfire (WF)
Very rare, occurring on the order of millennia	1	Tsunami (TSU); Volcano (VOL)

Note: Severe storm, a very frequent hazard, was omitted because it is ubiquitous and because no hazard map of storm severity was available.



Critical Facilities Ranking Table

Facility Name	Facility Type	Significance	EQ	LQ	LS	TSU	VOL	FL	COA	WF	Rank Assessment
Columbia Valley Water District	LUS	3	1	1	0	0	0	0	0	1	0.45
Beach School Elementary School	EF	1	1	1	0	0	0	1	1	1	0.22
Fairhaven Alaskan Ferry Terminal	EF	3	1	0	0	1	0	0	1	0	0.55
Gooseberry Point Ferry Dock	EF	3	1	1	0	1	0	0	1	1	0.85
Isle Aire Beach Association	LUS	2	1	1	0	0	0	0	0	0	0.2
LISECC	LUS	2	1	0	0	0	0	0	0	1	0.2
Lummi Island Dock	EF	3	1	1	0	0	0	0	0	0	0.3
Lummi Island Grange	EF	1	1	1	0	0	0	0	0	1	0.15
Lummi Island Post Office	EF	1	1	0	0	1	0	0	0	1	0.2
Lummi Point Water	LUS	3	1	0	0	1	0	0	1	1	0.7
Owners Association Beach Club Condos	LUS	3	1	1	0	0	0	0	0	1	0.45
Puget Sound Energy Switch	LUS	3	1	1	0	1	0	0	1	1	0.85
Sunset Water and Maintenance Association	LUS	3	1	1	0	0	0	0	0	1	0.45
The Islander	EF	1	1	1	0	1	0	0	0	1	0.25
Vander Yacht Propane	LUS	3	1	1	0	0	0	0	0	0	0.3
Whatcom Farmers Co-op	LUS	3	1	1	0	0	0	0	0	0	0.3



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Lummi Law & Order	EF	3	1	1	0	0	0	0	0	1	0.45
Nooksack Police Department	EF	3	1	1	0	0	0	0	0	0	0.3
Northwest Water Association	LUS	3	1	1	0	0	0	0	0	0	0.3
Pole Road Water Association	LUS	3	1	1	0	0	0	0	0	0	0.3
Alderwood Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Birchwood Elementary School	EF	1	1	1	1	0	0	0	0	0	0.15
Carl Cozier Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Columbia Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Cordata Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Geneva Elementary School	EF	1	1	0	0	0	0	0	0	1	0.1
Happy Valley Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Lowell Elementary School	EF	1	1	0	0	0	0	0	0	1	0.1
Northern Heights Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Parkview Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Roosevelt Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Silver Beach Elementary School	EF	1	1	0	0	0	0	0	0	1	0.1
Sunnyland Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Wade King Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Fairhaven Middle School	EF	1	1	0	0	0	0	0	0	1	0.1
Kulshan Middle School	EF	1	1	0	0	0	0	0	0	1	0.1
Shuksan Middle School	EF	1	1	1	1	0	0	0	0	0	0.15
Whatcom Middle School	EF	1	1	1	0	0	0	0	0	0	0.1
Bellingham High School	EF	1	1	1	0	0	0	0	0	0	0.1
Options High School	EF	1	1	1	0	0	0	0	0	0	0.1
Sehome High School	EF	1	1	0	0	0	0	0	0	0	0.05
Squalicum High School	EF	1	1	0	0	0	0	0	0	1	0.1
Blaine High School	EF	1	1	1	0	0	0	0	0	1	0.15
Blaine Middle School	EF	1	1	1	0	0	0	0	0	1	0.15
Blaine Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Blaine Primary School	EF	1	1	1	0	0	0	0	0	1	0.15
Point Roberts Primary School	EF	1	1	1	0	0	0	0	0	1	0.15
Irene Reither Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Meridian Middle School	EF	1	1	1	0	0	0	0	0	1	0.15
Meridian High School	EF	1	1	1	0	0	0	0	0	1	0.15



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Acme Elementary School	EF	1	1	1	1	0	1	1	0	1	0.33
Harmony Elementary School	EF	1	1	1	0	0	1	0	0	1	0.25
Kendall Elementary School	EF	1	1	1	0	0	0	0	0	1	0.15
Mt. Baker Junior/Senior High School	EF	1	1	1	0	0	1	0	0	1	0.25
Ferndale High School	EF	1	1	1	0	0	0	0	0	0	0.1
Horizon Middle School	EF	1	1	1	0	0	0	0	0	0	0.1
Vista Middle School	EF	1	1	1	0	0	0	0	0	0	0.1
Beach Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Cascadia Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Central Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Custer Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Eagleridge Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Skyline Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
North Bellingham Learning Center (Ferndale Schools)	EF	1	1	1	0	0	0	0	0	0	0.1
Nooksack Valley High School	EF	1	1	1	0	0	0	0	0	0	0.1



Nooksack Valley Middle School	EF	1	1	1	0	0	0	0	0	0	0.1
Everson Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Nooksack Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Sumas Elementary School	EF	1	1	1	0	0	0	0	0	0	0.1
Whatcom County Search & Rescue	EF	3	1	1	0	0	0	0	0	0	0.3
Seattle City Light Ross Dam	LUS	3	1	0	0	0	0	1	0	0	0.25
Seattle City Light Diablo Dam	LUS	3	1	0	0	0	0	1	0	0	0.25
Seattle City Light Gorge Dam	LUS	3	1	0	0	0	0	1	0	0	0.25
Puget Sound Energy Upper Baker Dam	LUS	3	1	1	0	0	0	0	0	0	0.3
Water District #2 – Bellingham	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #7 – Bellingham	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #4 – Point Roberts	LUS	3	1	1	0	1	0	0	0	1	0.75
Water District #10 – Geneva/Sudden Valley	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #12 – Lake Samish	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #13 – Maple Falls	LUS	3	1	1	0	0	0	0	0	1	0.45
Water District #14 – Glacier	LUS	3	1	1	1	0	1	1	0	1	1



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Water District #18 – Acme	LUS	3	1	1	0	0	1	1	0	1	0.85
BP-Cherry Point Refinery	Fuel	2	1	1	0	0	0	0	0	1	0.3
Birch Bay Water and Sewer (District 8)	LUS	3		1	0	1	0	0	0	1	0.75
Birch Bay Water Connection	LUS	3	1	1	0	1	0	0	0	1	0.75
Whatcom County Sheriff's Office Emergency Coordination Center	EF	3	1	1	0	0	0	0	0	0	0.3
Whatcom County Sheriff's Office	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 01 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 02 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 03 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 04 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 05 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 06 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 10 – Bellingham Fire Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 31 – Bellingham Fire / WCFD 08 Station	EF	3	1	1	0	0	0	0	0	0	0.3



Fire Station 34 – Bellingham Fire / WCFD 08 Station	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 33 – Bellingham Fire / WCFD 08 Station	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 32 – Bellingham International Airport ARFF	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 96 – WCFD 19	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 71 – Lynden Fire Department	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 75 – Lynden Fire Department	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 72 – Lynden Fire Department	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 13 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 11 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 12 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 36 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 61 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 62 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 63 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Fire Station 64 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 65 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 68 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 69 – North Whatcom Fire Rescue	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 56 – Sandy Point Fire	EF	3	1	1	0	1	0	0	1	1	0.85
Fire Station 57 – Sandy Point Fire	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 16 – South Whatcom Fire Authority	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 18 – South Whatcom Fire Authority	EF	3	1	0	0	0	0	0	0	1	0.3
Fire Station 21 – South Whatcom Fire Authority	EF	3	1	0	0	0	0	0	0	1	0.3
Fire Station 22 – South Whatcom Fire Authority	EF	3	1	0	0	0	0	0	0	1	0.3
Fire Station 28 – South Whatcom Fire Authority	EF	3	1	0	0	0	0	0	0	1	0.3
Fire Station 29 – South Whatcom Fire Authority	EF	3	1	0	0	0	0	0	0	1	0.3
Fire Station 80 – WCDF 01	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 81 – WCDF 01	EF	3	1	1	0	0	1	1	0	0	0.7
Fire Station 58 – WCDF 05	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 59 – WCDF 05	EF	3	1	1	0	0	0	0	0	1	0.45



**SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY**

Fire Station 41 – WCFD 07	EF	3	1	1	0	0	1	0	0	0	0.6
Fire Station 42 – WCFD 07	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 43 – WCFD 07	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 44 – WCFD 07	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 45 – WCFD 07	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 46 – WCFD 07	EF	3	1	1	0	0	0	0	0	1	0.45
Fire Station 38 – Lummi Island	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 91 – WCFD 14	EF	3	1	1	0	0	1	0	0	0	0.6
Fire Station 92 – WCFD 14	EF	3	1	1	0	0	1	0	0	1	0.75
Fire Station 93 – WCFD 14	EF	3	1	0	0	0	1	0	0	1	0.6
Fire Station 86 – WCFD 16	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 87 – WCFD 16	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 88 – WCFD 16	EF	3	1	1	0	0	0	0	0	0	0.3
Fire Station 25 – WCFD 18	EF	3	1	0	1	0	0	0	0	0	0.3
Fire Station 26 – WCFD 18	EF	3	1	1	0	0	0	0	0	1	0.45
Ferndale Police Department	EF	3	1	1	0	0	0	0	0	0	0.3
Blaine Police Department	EF	3	1	1	0	0	0	0	0	0	0.3
Lynden Police Department	EF	3	1	1	0	0	0	0	0	0	0.3
Sumas Police Department	EF	3	1	1	0	0	0	0	0	0	0.3
Everson Police Department	EF	3	1	1	0	0	1	1	0	0	0.7
Whatcom County Public Works	EF	3	1	1	0	0	0	0	0	0	0.3



SECTION 3: JURISDICTION PROFILES AND MITIGATION
ACTION PLANS – WHATCOM COUNTY

Sumas Public Works Department	EF	3	1	1	0	0	0	0	0	0	0.3
Ferndale Public Works Department	EF	3	1	1	0	0	0	0	0	0	0.3
Blaine Public Works Department	EF	3	1	1	0	0	0	0	0	0	0.3
Lynden Public Works Department	EF	3	1	1	0	0	0	0	0	0	0.3
Everson Public Works Department	EF	3	1	1	0	0	0	0	0	0	0.3

Notes: **EQ** = Earthquake; **LQ** = Liquefaction; **LS** = Landslide; **TSUN** = Tsunami; **VOL** = Volcano; **FL** = Riverine Flooding; **COA** = Coastal Flooding; **WF** = Wildland Fire



Areas and Assets Exposed, Per Hazard

	Unincorporated Whatcom County Exposure to Natural Hazards					
	Hazard Susceptibility					Critical Facilities Appraised Value (Million)
		Area (sq.mi.)	Population	Parcels	Critical Facilities	
Geological						
	MMI IV	7.7%	-	0.03%	-	-
	MMI V	31.7%	15.3%	15.7%	23.8%	\$161 ¹
	MMI VI	29.6%	63.5%	66.8%	47.6%	\$1396 ¹
	MMI VII	11.7%	13.8%	8.4%	9.8%	\$37
	MMI VIII - IX	5.7%	7.3%	7.4%	9.1%	\$44
	TOTAL	86.4%	99.9%	98.3%	90.3%	\$1,638
	Very Low to Low	14.6%	45.4%	41.8%	45.5%	\$283 ¹
	Low to Moderate	6.5%	24.4%	27.5%	28%	\$1189 ¹
	Moderate	-	-	-	-	-
	Moderate to High	4.4%	7.5%	8.5%	11.2%	\$59
	High	0.02%	-	0.04%	-	-
	TOTAL	25.5%	77.3%	77.84%	84.7%	\$1,531
	Landslide Low	0.7%	0.2%	0.25	-	-
	Landslide Moderate	1%	0.2%	0.1%	-	-
	Landslide High	2.9%	1.2%	1.9%	1.4%	\$0.3



	<i>Fan Low</i>	0.1%	0.1%	0.06%	-	-
	<i>Fan Moderate</i>	0.3%	0.2%	0.2%	-	-
	<i>Fan High</i>	0.8%	2.4%	1.9%	2.8%	\$3
	<i>Mine Hazard</i>	0.1%	0.4%	2.1%	1.4%	19% ¹
	TOTAL	5.9%	4.7%	6.51%	5.6%	\$22.3
	<i>Case 1 Debris Flows</i>	1.6%	1.9%	2.1%	4.9% ²	\$19 ²
	<i>Case 2 Debris Flows</i>	0.9%	1.2%	-	-	-
	<i>Case M Flows</i>	2.9%	5.6%	6.3%	7.7% ²	\$43 ²
	<i>Pyroclastic Flows, Lava Flows, and Ballistic Debris</i>	5.8%	0.2%	0.6%	2.1% ²	\$0.3 ²
	<i>Lateral Blast Hazard Zone</i>	22.7%	3.8%	5.5%	7% ²	\$11 ²
	TOTAL	33.9%	12.7%	14.5%	21.7%	\$73.3
	<i>Low to Moderate Inundation Potential</i>	0.3%	3%	0.6%	3.5%	\$7
	<i>Moderate to High Inundation Potential</i>	0.3%	1.5%	0.5%	-	-
	<i>High Inundation Potential</i>	0.6%	3.8%	5.6%	4.2%	\$18
	TOTAL	1.6%	8.3%	6.7%	7.7%	\$25
Hydrol						
	<i>100-year Flood</i>	3.5%	6.7%	8%	9.1%	\$66



	<i>500-year Flood</i>	0.4%	1.9%	3.4%	4.9%	\$129
	<i>Floodway</i>	0.9%	1.4%	-	-	-
	<i>Undetermined (Zone D)</i>	52.1%	0.1%	0.05%	1.4%	\$9
	TOTAL	4.8%	10.1%	11.45%	15.4%	\$204
Meteorological	Wildfire Zones					
	<i>Interface Very Low-Low Structure Density</i>	0.9%	1.9%	7.7%	0.7%	\$0.4
	<i>Interface Medium-High Structure Density</i>	1.4%	23.2%	26.9%	39.2%	\$1,331 ¹
	<i>Intermix Very Low-Low Structure Density</i>	5.9%	17.2%	1.6%	19.6%	\$112
	<i>Intermix Medium-High Structure Density</i>	4.1%	32.1%	30.4%	23.1%	\$39
	TOTAL	12.3%	74.4%	66.6%	82.6%	\$1,482.4

¹This value shows the total of 2020 Whatcom County parcel data appraised total value and community's critical facility assessed dollar value (found in the community's critical facilities list). The critical facility's assessed dollar value was used instead of the appraised total value when available.

²Some critical facilities located in multiple hazard zones.



Status of Unincorporated Whatcom County's 2016-2020 and Ongoing Hazard Mitigation Actions

This section describes the status of mitigation actions that were proposed in the 2016 Mitigation Plan and are now 1) currently being implemented and are ongoing, 2) are now completed, or 3) are now discontinued because they are no longer needed. The actions are organized by hazard and indicate the lead agency, funding source, and status.

Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
Funding Source	Local; State; FEMA; Private; Other
Current Status	Action Discontinued / Action Completed / Action ongoing and expected completion date

Education and Outreach

EO-a. Emergency preparedness education programs for schools. Emergency preparedness and emergency management is delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom County with emergency planning.

Lead Agency	School Districts 501, 502, 503, 504, 506, 507
Funding Source	Local, Homeland Security Grant Funding
Current Status	Action Ongoing and continuous

EO-b. Drills, exercises in homes, workplaces, classrooms, etc. Emergency drills and exercises are delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom County with emergency drills and exercises.

Lead Agency	School Districts 501, 502, 503, 504, 506, 507
Funding Source	Local
Current Status	Action Ongoing and continuous

EO-c. Hazard "safety fairs." Hazard "safety fairs" are conducted at the local level within jurisdictions or special districts. While COVID-19 did disrupt these fairs in 2020, the Whatcom County Sheriff's Office Division of Emergency Management did participate in a number of these (Night Out, Lummi Island Safety Fair, Sudden Valley Safety Fair, Northwest Washington Fair,



etc.).

Lead Agency	Local jurisdictions and special districts
Funding Source	Local, other
Current Status	Action Ongoing and continuous

EO-d. Hazard conferences, seminars. The Whatcom County Sheriff's Office Division of Emergency Management has sponsored, participated in, or attended numerous hazard specific conferences and seminars over the last 5 years on all natural hazards listed in this plan.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action Ongoing and continuous

EO-e. Distribution of severe weather guides, preparedness handbooks, brochures homeowner's retrofit guide, etc. The Whatcom County Sheriff's Office Division of Emergency Management is the county focal point for the distribution of brochures, handbooks and guides for emergency and disaster management.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action Ongoing and continuous

EO-f. Newspaper articles - There has been no articles regularly published on disaster preparedness in the last 5 years as the local media does not support regular submissions or have a section for disaster planning. They have reported on disasters and did do a fictional (internal) account of what would happen after a major earthquake, with input from local experts and emergency managers.

Lead Agency	None
Funding Source	Other
Current Status	Ad hoc

EO-g. Annual correspondence with residents. Whatcom County Public Works does distribute an annual flood and emergency preparedness outreach paper.

Lead Agency	Whatcom county Public Works
Funding Source	Local
Current Status	Action Ongoing and continuous



Drought/heat wave

Action initiating with initial goals of identifying, documenting and determining applicability of Droughts and Heat Waves.

Earthquake

EQ-a. Incorporate Earthquake Mitigation into Local Planning. Whatcom County has incorporated building mitigation strategies for earthquakes into the Comprehensive Plan.

Lead Agency	Whatcom County Planning and Development Services
Funding Source	Local
Current Status	Action Ongoing and continuous

EQ-b. Conduct Inspections of Building Safety. Building safety inspections are carried out on a continual and regular basis.

Lead Agency	Whatcom County Planning and Development Services
Funding Source	Local
Current Status	Action Ongoing and continuous

EQ-c. Increase Earthquake Risk Awareness. The Whatcom County Sheriff's Office Division of Emergency Management promotes earthquake awareness on a continual and ongoing basis.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local, State and Federal
Current Status	Action Ongoing and continuous

Debris Slides

LS-a. Manage Development in Landslide Hazard Areas. Whatcom County Planning and Development Services does manage development in Landslide Hazard Areas on a continual and ongoing basis.

Lead Agency	Whatcom County Planning and Development Services
Funding Source	Local
Current Status	Action Ongoing and continuous

Flooding



FL-a. Establish Local Funding Mechanisms for Flood Mitigation

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous

FL-b. Remove Existing Structures from Flood Hazard Areas

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and expected to be completed in 2025

FL-c. Improve Stormwater Drainage System Capacity

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous

FL-d. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous

FL-e. Protect Infrastructure

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works for any infrastructure that is County property
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous

FL-f. Construct Flood Control Measures

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works for any infrastructure that is County property
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous



FL-g. Protect and Restore Natural Flood Mitigation Features

Lead Agency	Lead responsibility lies Flood Zone & Surface Water/ Public Works in repetitive problem areas
Funding Source	Local, state, FEMA, Private, Other
Current Status	Action ongoing and continuous

Landslide/erosion

No actions ongoing, discontinued, or completed for this hazard.

Severe Storm

No actions ongoing, discontinued, or completed for this hazard.

Severe Wind

SW-a. Protect Power Lines and Infrastructure

Lead Agency	Puget Sound Energy, Blaine Electric, Bonneville Power Administration, Western States Power Grid
Funding Source	Private Investment
Current Status	Action ongoing and continuous

Tsunami

TSU-a. Map and Assess Vulnerability to Tsunami

Lead Agency	Lead responsibility lies with the DNR. They have completed all mapping in Whatcom County in 2013.
Funding Source	State, other
Current Status	Action ongoing and expected to be completed in 2025

TSU-b. Manage Development in Tsunami Hazard Areas

Lead Agency	Lead responsibility lies with Whatcom County Planning Department
Funding Source	Local
Current Status	Action ongoing and continuous



Wildfire

WF-a. Incorporate Wildfire Mitigation in the Comprehensive Plan. The Whatcom County Sheriff's Office Division of Emergency Management has been working with the fire community to write a Wildland Fire plan for Whatcom County.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local
Current Status	Action ongoing and continuous

WF-b. Participate in Firewise Program. Firewise is managed by the Whatcom Conservation District and is a continual improvement process.

Lead Agency	Whatcom Conservation District
Funding Source	State & Local
Current Status	Action ongoing and continuous

Winter storms/Freezes

WW-a. Reduce Impacts to Roadways

Lead Agency	Whatcom County Public Works.
Funding Source	Local
Current Status	Action ongoing and continuous

WW-b. Conduct Winter Weather Risk Awareness Activities

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management
Funding Source	Local
Current Status	Action ongoing and continuous

Multiple Hazards

MU-a. Adopt and Enforce Building Codes. Whatcom County adopts the International Building Code Suit, including the Residential and Building Codes, which include standards for seismic, wind, and snow loads, among others; it also adopts the suite's Fire Code. It currently follows the 2018 editions of those codes per Ordinance 2021-016, passed March 23, 2021. The Whatcom County Planning Department supports enforcement through its permitting and inspection processes.



Lead Agency	Whatcom County Planning and Development Services
Funding Source	Local
Current Status	Action Ongoing and continuous

MU-b. Improve Household Disaster Preparedness. The shortage in staff for the task is leveraged through social media outreach. In 2019, the Division of Emergency Management partnered with CERT and Western Washington University to pilot a door-to-door and online survey on resident hazard awareness and disaster preparedness. Residents surveyed were given information about natural hazards in Whatcom County, expected impacts, and simple ways they could be better prepare. Future iterations of the survey are planned for post-pandemic conditions.

Lead Agency	Whatcom County Sheriff's Office Division of Emergency Management.
Funding Source	Local
Current Status	Action Ongoing and continuous



Unincorporated Whatcom County 2021-2025 Hazard Mitigation Strategy

Whatcom County Hazard Mitigation Goals

Whatcom County has identified five overarching hazard mitigation goals, which represent what a community seeks to achieve through mitigation actions.

Goal 1. Protect Life, Property and Public Welfare

Goal 2. Increase Public Awareness

Goal 3. Preserve and Enhance Natural Systems

Goal 4. Encourage Partnership for Implementation

Goal 5. Ensure Continuity of Emergency Services

These countywide goals help guide any prioritization and implementation of mitigation actions, ensuring that the actions contribute to a community's vision for the future.

Mitigation Action Options

Appendix E of the Whatcom County Natural Hazard Mitigation Plan provides a list of mitigation options. Unincorporated Whatcom County considered mitigation options related to geological, hydrological, and meteorological hazards, especially those related to earthquake, liquefaction and volcano because these hazards have the potential to cause the greatest loss and damage. Not all mitigation options in Appendix E were relevant or a strong priority for Unincorporated Whatcom County. Some options have already been implemented or are ongoing in Unincorporated Whatcom County, as documented in the section above on the status of 2016-2020 and ongoing hazard mitigation actions.

Mitigation Action Prioritization

The mitigation actions in this section are new actions that Unincorporated Whatcom County has prioritized for the 2021-2025 planning period and beyond. Mitigation options were prioritized based upon review of the following two criteria: 1) The action's Overall Feasibility based on engineering, environmental, financial and political considerations, 2) The Criticality of the action, based upon a consideration of which actions had the greatest potential to protect life, property and public welfare. Unincorporated Whatcom County is working with other participating communities and special districts to develop a systematic methodology that would use multiple evaluation criteria to determine mitigation action prioritization. This new methodology will be used in future updates of this Plan.

Unincorporated Whatcom County has, since the first Natural Hazards Mitigation Plan in 2005, consistently maintained the goals of the plans to be similar and addressed the natural hazards



in a maintenance format. Since 2005, many of the understandings of the natural hazards, along with the science supporting these hazards, has changed. In this 2021-2025 plan, Whatcom County will focus on mitigation actions that will help Unincorporated Whatcom County integrate the new science, assumptions and realities for each of the major natural hazards, coupled with an expansion of the use of GIS, both for documentation and geospatial analysis, as well as multiagency coordination. Finally, it will focus on enhanced education outreach. The goal is to establish a baseline that will be up-to-date, accurate and based on best available science, from which the most appropriate mitigation actions can be chosen.

In the following Identified Mitigation Actions 2021-2025 table, each priority action is listed by hazard. Each action is followed by planning goals, lead agency, the priority evaluation, timeline, funding source and estimated cost, where such information is available. This information can be used by local decision makers in pursuing strategies for implementation.

1	Goals	Indicates the hazard mitigation planning goal or goals this action addresses; countywide and/or community-specific
2	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
3	Priority	H (High); M (Medium); L (Low)
4	Timeline	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing
5	Funding Source	Local; State; FEMA; Private; Other
6	Estimated Cost	Actual; Estimated



Unincorporated Whatcom County Identified Mitigation Actions 2021-2025

UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
MULTIPLE HAZARDS	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.						
	<i>MU-a Ongoing -- Adopt and Enforce Building Codes</i> Whatcom County adopts the International Building Code Suit, including the Residential and Building Codes, which include standards for seismic, wind, and snow loads, among others; it also adopts the suite’s Fire Code. It currently follows the 2018 editions of those codes per Ordinance 2021-016, passed March 23, 2021. The Whatcom County Planning Department supports enforcement through its permitting and inspection processes.	1	Whatcom County Planning and Development Services	H	O	Local	
	<i>MU-b Ongoing -- Improve Household Disaster Preparedness</i> The shortage in staff for the task is leveraged through social media outreach. In 2019, the Division of Emergency Management partnered with CERT and Western Washington University to pilot a door-to-door	1	Whatcom County Sheriff’s Office Division of Emergency Management.	H	O	Local	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	and online survey on resident hazard awareness and disaster preparedness. Residents surveyed were given information about natural hazards in Whatcom County, expected impacts, and simple ways they could be better prepare. Future iterations of the survey are planned for post-pandemic conditions.						
	MU-1 Assess Community Risk Task: <ol style="list-style-type: none"> Obtain local data including tax parcels, building footprints, critical facility locations, and other information for use in risk analysis. Develop and maintain a database to track community exposure in known hazard areas. Establish a process to coordinate with state and Federal agencies to maintain up-to-date hazard data, maps, and assessments. 	1, 2, 3	Whatcom County Sheriff's Office Division of Emergency	H	MR	Local, State, FEMA	\$250,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	4. Update aerial photography current, especially in rapidly developing areas. 5. Identify the most at-risk critical facilities and evaluating potential mitigation techniques. 6. Perform a social vulnerability analysis to identify neighborhoods of high vulnerability to hazard impacts, considering income, age, insurance rates, education, length of time in community and other potential indicators.						
	MU-2 Integrate Mitigation into Local Planning Tasks: 1. Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts. 2. Incorporate a stand-alone element for hazard mitigation into the local comprehensive (land use) plan.	1, 4	Whatcom County Planning and Development Services	M	LR	Local, State, FEMA	\$250,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	3. Incorporate hazard mitigation into broader growth management (i.e., Smart Growth) initiatives. 4. Incorporate a hazard risk assessment into the local development and subdivision review process.						
	MU-3 Monitor Mitigation Plan Implementation Tasks: 1. Form a plan implementation steering committee to monitor progress on local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government. 2. Prepare a plan implementation monitoring schedule and outlining roles for those responsible for monitoring (i.e., local departments, agencies, and committees). 3. Prepare and submit an annual plan implementation progress report to the local elected body.	1,4	Whatcom County Sheriff's Office Division of Emergency	H	MR	Local, State, FEMA	\$125,000
	MU-4 Protect Structures	1,5	Task 1:	H	MR	Local,	\$5,000,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Tasks: 1. Acquire or relocating structures located in hazard areas. 2. Assess the need to retrofit fire and police stations to become hazard resistant.		Whatcom County Public Works Task 2: Whatcom County Sheriff's Office Division of Emergency			State, FEMA	
	MU-5 Increase Hazard Education and Risk Awareness Tasks: 1. Develop and implement a multi-hazard public awareness program. 2. Establish a "hazard awareness week" in coordination with the media to promote hazard awareness (seasonal). 3. Create a speaker's bureau for disaster-related topics that focus on mitigation and preparedness measures.	2	Whatcom County Sheriff's Office Division of Emergency	H	MR	Local, State, FEMA	\$100,000
Education and Outreach	EO-a Ongoing -- Emergency preparedness education programs for schools Emergency preparedness and emergency	2	School Districts 501, 502, 503, 504, 506, 507	H	O	Local, Homeland Security	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	management is delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom County with emergency planning.					Grant Funding	
	EO-b Ongoing -- Drills, exercises in homes, workplaces, classrooms, etc. Emergency drills and exercises are delegated to school districts by Washington State RCW's. The Whatcom County Sheriff's Office Division of Emergency Management does support all the school districts in Whatcom County with emergency drills and exercises.	1, 2	School Districts 501, 502, 503, 504, 506, 507	H	O	Local	
	EO-c Ongoing -- Hazard "safety fairs." Hazard "safety fairs" are conducted at the local level within jurisdictions or special districts. While COVID-19 did disrupt these fairs in 2020, the Whatcom County Sheriff's Office Division of Emergency Management did participate in a number of these (Night Out, Lummi Island Safety Fair, Sudden Valley Safety Fair, Northwest Washington Fair,	2	Local jurisdictions and special districts	H	O	Local, Other	
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	etc.).						
	EO-d Ongoing -- Hazard conferences, seminars The Whatcom County Sheriff's Office Division of Emergency Management has sponsored, participated in, or attended numerous hazard specific conferences and seminars over the last 5 years on all natural hazards listed in this plan.	2	Whatcom County Sheriff's Office Division of Emergency Management	M	O	Local, state, FEMA, Private, Other	
	EO-e Ongoing -- Distribution of severe weather guides, preparedness handbooks, brochures homeowner's retrofit guide, etc. The Whatcom County Sheriff's Office Division of Emergency Management is the county focal point for the distribution of brochures, handbooks and guides for emergency and disaster management.	2	Whatcom County Sheriff's Office Division of Emergency Management	M	O	Local, state, FEMA, Private, Other	
	EO-f Ongoing -- Newspaper articles There has been no articles regularly published on disaster preparedness in the last 5 years as the local media does not support regular submissions or have a section	2	None	L	O	Other	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	for disaster planning. They have reported on disasters and did do a fictional (internal) account of what would happen after a major earthquake, with input from local experts and emergency managers.						
	EO-g Ongoing -- Annual correspondence with residents Whatcom County Public Works does distribute an annual flood and emergency preparedness outreach paper.	2	Whatcom county Public Works	M	O	Local	
Hazard Specific (Reference: Whatcom County Mitigation Ideas)							
Droughts/Heat Waves	D-1 Assess Vulnerability to Drought Risk Tasks: 1. Gather and analyze existing water and climate data and projection modeling to gain a better understanding of local climate and changes in future precipitation and temperature patterns.	1, 5	Whatcom County Sheriff's Office Division of Emergency Management	L	M	State, FEMA, and Federal	\$75,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	2. Identify factors that affect the severity of a drought, including water usage and population projections. 3. Identify available water supplies and projected shortages. 4. Identify appropriate water saving and use reduction strategies that may reduce impact of drought. 5. Integrate drought mitigation into public awareness actions.						
Earthquakes	<i>EQ-a Ongoing -- Incorporate Earthquake Mitigation into Local Planning.</i> Whatcom County has incorporated building mitigation strategies for earthquakes into the Comprehensive Plan.	1	Whatcom County Planning and Development Services	M	O	Local	
	<i>EQ-b Ongoing -- Conduct Inspections of Building Safety</i> Building safety inspections are carried out on a continual and regular basis.	1	Whatcom County Planning and Development Services	M	O	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>EQ-c Ongoing -- Increase Earthquake Risk Awareness.</i> The Whatcom County Sheriff's Office Division of Emergency Management promotes earthquake awareness on a continual and ongoing basis.	1	Whatcom County Sheriff's Office Division of Emergency Management	M	O	Local, State, Federal	
	EQ-1 Increase Earthquake Risk Awareness Tasks: 1. Develop an outreach program about earthquake risk and mitigation activities in homes, schools, and businesses.	2	Whatcom County Sheriff's Office Division of Emergency Management	H	M	Local, state, FEMA, Private, Other	\$100,000
	EQ-2 Conduct Outreach to Builders, Architects, Engineers, and Inspector Tasks: 1. Training building department staff and officials on Form ATC-20 for post-earthquake building evaluation. The ATC-20 report and addendum, prepared by the Applied Technology Council, provide procedures and guidelines for making on-the-spot evaluations and decisions regarding continued use and	2,3	Whatcom County Sheriff's Office Division of Emergency Management	M	M	Local, state, FEMA, Private, Other	\$75,000
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	occupancy of earthquake-damaged buildings.						
Erosion	ER-1 Map and Assess Vulnerability to Erosion Tasks: 1. Use satellite and aerial photography to identify and map erosion hazard areas. 2. Develop and maintain a database to track community vulnerability to erosion. 3. Use GIS to identify concentrations of at-risk structures.	1	Whatcom County Sheriff's Office Division of Emergency Management	M	M	Local, State, FEMA, Private, Other	\$150,000
Landslides	LS-a Ongoing -- Manage Development in Landslide Hazard Areas. Whatcom County Planning and Development Services does manage development in Landslide Hazard Areas on a continual and ongoing basis.	1, 3	Whatcom County Planning and Development Services	M	O	Local	
	LS-1 Map and Assess Vulnerability to Landslides Tasks:	1, 2	Whatcom County Sheriff's Office Division of	H	M	Local, State, FEMA,	\$150,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	1. Study areas where riparian landslides may occur. 2. Complete an inventory of locations where critical facilities, other buildings, and infrastructure are vulnerable to landslides. 3. Develop and maintaining a database to track community vulnerability to landslides.		Emergency Management			Private, Other	
Flooding	<i>FL-a Ongoing -- Establish Local Funding Mechanisms for Flood Mitigation</i>	1	Lead responsibility lies Flood Zone & Surface Water/ Public Works	M	O	Local, state, FEMA, Private, Other	
	<i>FL-b Ongoing -- Remove Existing Structures from Flood Hazard Areas</i>	1	Lead responsibility lies Flood Zone & Surface Water/ Public Works	M	O	Local, state, FEMA, Private, Other	
	<i>FL-c Ongoing -- Improve Stormwater</i>	1	Lead	M	O	Local,	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<i>Drainage System Capacity</i>		responsibility lies Flood Zone & Surface Water/ Public Works			state, FEMA, Private, Other	
	<i>FL-d Ongoing -- Conduct Regular Maintenance for Drainage Systems and Flood Control Structures</i>	1	Lead responsibility lies Flood Zone & Surface Water/ Public Works	M	O	Local, state, FEMA, Private, Other	
	<i>FL-e Ongoing -- Protect Infrastructure</i>	1	Lead responsibility lies Flood Zone & Surface Water/ Public Works for any infrastructure that is County property	M	O	Local, state, FEMA, Private, Other	
	<i>FL-f Ongoing -- Construct Flood Control Measures</i>	1	Lead responsibility	M	O	Local, state,	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
			lies Flood Zone & Surface Water/ Public Works for any infrastructure that is County property			FEMA, Private, Other	
	<i>FL-g Ongoing -- Protect and Restore Natural Flood Mitigation Features</i>	1	Lead responsibility lies Flood Zone & Surface Water/ Public Works in repetitive problem areas	M	O	Local, state, FEMA, Private, Other	
Coastal Flooding	CF-1 Map and Assess Vulnerability to Coastal Flooding Tasks: 1. Model various “what-if” scenarios to estimate potential vulnerabilities in order to develop coastal mitigation priorities. 2. Use GIS to map hazard areas, at-risk	1, 2, 5	Whatcom County Sheriff’s Office Division of Emergency Management	M	M	Local, State, FEMA, Private, Other	\$250,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	structures, and associated hazards (e.g., flood and storm surge) to assess high-risk areas. 3. Develop an inventory of public buildings and infrastructure that may be particularly vulnerable to coastal flooding.						
Winter Weather	WW-a. Reduce Impacts to Roadways	1	Whatcom County Public Works.	M	O	Local	
	WW-b. Conduct Winter Weather Risk Awareness Activities	1	Whatcom County Sheriff's Office Division of Emergency Management	M	O	Local	
	WW-1 Conduct Winter Weather Risk Awareness Activities Tasks: 1. Inform the public about severe winter weather impacts. 2. Distribute family and traveler emergency preparedness information	1, 2	Whatcom County Sheriff's Office Division of Emergency Management	M	M	Local, State, FEMA, Private, Other	\$50,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	about severe winter weather hazards. 3. Encourage homeowners to install carbon monoxide monitors and alarms. 4. Educating citizens that all fuel-burning equipment should be vented to the outside.						
	WW-2 Assist Vulnerable Populations Tasks: 1. Identify specific at-risk populations that may be exceptionally vulnerable in the event of long-term power outages. 2. Organize outreach to vulnerable populations, including establishing and promoting accessible heating centers in the community.	1	Task 1: Whatcom County Sheriff's Office Division of Emergency Management Task 2: Whatcom County Health Department	M	M	Local, State, FEMA, Private, Other	\$100,000
Subsidence	SU-1 Map and Assess Vulnerability to Subsidence Tasks: 1. Using GIS to map areas that are susceptible to subsidence. 2. Identify and map old mining areas or		Whatcom County Sheriff's Office Division of Emergency Management	M	M	Local, State, FEMA, Private, Other	\$75,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	geologically unstable terrain so that development can be prevented or eliminated. 3. Improve accuracy of hazard area maps to educate residents about unanticipated risks.						
Tsunami	<i>TSU-a Ongoing -- Map and Assess Vulnerability to Tsunami</i>	1	Lead responsibility lies with the DNR. They have completed all mapping in Whatcom County in 2013.	M	O	State, Other	
	<i>TSU-b Ongoing -- Manage Development in Tsunami Hazard Areas</i>	1, 3	Lead responsibility lies with Whatcom County Planning Department	M	O	Local	
	TSU-1 Map and Assess Vulnerability to		Whatcom	H	S	Local,	\$250,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	Tsunami Tasks: 1. Using updated tsunami indentation modeling from DNR, develop and maintain a database to track community vulnerability to tsunamis. 2. Offer tsunami hazard mapping online for residents and design professionals. 3. Educate map users on the appropriate uses and limitations of maps. 4. More accurately map problem areas to educate residents about unanticipated risks.		County Sheriff's Office Division of Emergency Management			State, FEMA, Private, Other	
	TSU-2 Manage Development in Tsunami Hazard Areas Tasks: 1. Encourage awareness of and compliance with the IBC's non-mandatory appendix on tsunami-generated flood hazard. 2. Where modeled wave height is low, encourage new development that is configured to minimize tsunami losses	1,3,5	Whatcom County Planning and Development Services	H	S	Local, State, FEMA, Private, Other	\$25,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	by using site planning strategies that slow water currents, steer water forces, and block water forces.						
	TSU-3 Increase Public Awareness of Tsunami Hazard Tasks: 1. Educate citizens regarding the dangers of tsunami and inform them of emergency procedures and routes to use should a tsunami warning be issued. 2. Designate tsunami inundation zones and evacuation routes. 3. Conduct tsunami evacuation drills. 4. Develop maps showing possible tsunami inundation areas. 5. Participating in NOAA's TsunamiReady Community program.	2	Whatcom County Sheriff's Office Division of Emergency Management	H	S	Local, State, FEMA, Private, Other	\$150,
	WF-a Ongoing -- Incorporate Wildfire Mitigation in the Comprehensive Plan The Whatcom County Sheriff's Office Division of Emergency Management has been	1	Whatcom County Sheriff's Office Division of Emergency	M	O	Local	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
Wildfire	working with the fire community to write a Wildland Fire plan for Whatcom County.		Management				
	WF-b Ongoing -- Participate in Firewise Program. Firewise is managed by the Whatcom Conservation District and is a continual improvement process.	1	Whatcom Conservation District	M	O	State, Local	
	WF-1 Map and Assess Vulnerability to Wildfire Tasks: 1. Use GIS mapping of wildfire hazard areas to facilitate analysis and planning decisions through comparison with zoning, development, infrastructure, etc. 2. Develop and maintain a database to track community vulnerability to wildfire. 3. Create a wildfire scenario to estimate potential loss of life and injuries, the types of potential damage, and existing	1,2	Whatcom County Sheriff's Office Division of Emergency Management	H	S	Local, state, FEMA, Private, Other	\$250,000
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	vulnerabilities within a community to develop wildfire mitigation priorities.						
	WF-2 Require or Encourage Fire-Resistant Construction Techniques Tasks: 1. Encourage the use of non-combustible materials for new construction in wildfire hazard areas. 2. Using fire resistant roofing and building materials in remodels, upgrades, and new construction. 3. Encourage enclosing the foundations of homes and other buildings in wildfire-prone areas, rather than leaving them open and potentially exposing undersides to blown embers or other materials.		Whatcom County Planning and Development Services	H	S	Local, state, FEMA, Private, Other	\$125,000
	WF-3 Create Defensible Space Around Structures and Infrastructure Tasks: 1. Encourage creating buffers around residential and non-residential structures through the removal or reduction of flammable vegetation,		Whatcom County Sheriff's Office Division of Emergency Management	H	S	Local, state, FEMA, Private, Other	\$125,000
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing			Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	including vertical clearance of tree branches. 2. Encourage replacing flammable vegetation with less flammable species. 3. Encourage creating defensible zones around power lines, oil and gas lines, and other infrastructure systems.						
	WF-4 Participate in Firewise Program Tasks: 1. Expand the “Firewise Communities/USA” recognition program sponsored by the National Wildlife Coordinating Group (firewise.org). 2. Sponsor Firewise workshops for local officials, developers, civic groups, and neighborhood/homeowners’ associations. 3. Publicize Firewise guidance and encourage best practices in Whatcom County.		Whatcom County Conservation District	H	S	Local, state, FEMA, Private, Other	\$125,000
	WF-5 Increase Wildfire Risk Awareness Tasks:		Whatcom County Sheriff’s Office Division of	H	S	Local, state, FEMA,	\$75,000

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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UNINCORPORATED WHATCOM COUNTY IDENTIFIED MITIGATION ACTIONS 2021-2025							
MITIGATION ACTIONS		(1) Goals	(2) Lead Responsibility for Carrying out Measure	(3) Priority	(4) Timeline	(5) Funding Source	(6) Estimated Cost
Hazard	Action Items						
	<ol style="list-style-type: none"> Offer GIS hazard mapping online for residents, developers, and design professionals. Organize Fire District tours to show elected officials and planners the most vulnerable areas of the community's wildland-urban interface and increase their understanding of risks. Develop partnerships with neighborhood groups, homeowners' associations, and others to conduct outreach activities. Conduct education programs in schools. Educate the public about evacuation procedures. Form a citizen plan implementation steering committee to monitor progress of local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government. 		Emergency Management			Private, Other	

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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Unincorporated Whatcom County Annual Review and Progress for Hazard-Specific Mitigation Actions 2021-2025

Progress monitoring means tracking the implementation of the hazard specific mitigation actions over time. Each jurisdiction must identify how, when, and by whom action items will be monitored. The responsible agency assigned to each mitigation action is responsible for tracking and reporting on each of their actions.

Annual review and progress reporting includes the following:

- Step One:** Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.
- Step Two:** Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.
- Step Three:** Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review
- Step Four:** Submit the completed form(s) to the Whatcom County DEM.



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
MULTIPLE HAZARDS						
MU-a Ongoing -- Adopt and Enforce Building Codes						
MU-b Ongoing -- Improve Household Disaster Preparedness						
MU-1 Assess Community Risk - Obtain local data including tax parcels, building footprints, critical facility locations, and other information for use in risk analysis						
MU-1 Assess Community Risk - Develop and maintain a database to track community vulnerability (i.e., exposure in known hazard areas)						
MU-1 Assess Community Risk - Establish a process to coordinate with state and Federal agencies to maintain up-to-date hazard data, maps, and assessments						
MU-1 Assess Community Risk - Update aerial photography current, especially in rapidly developing areas						
MU-1 Assess Community Risk - Identify the most at-risk critical facilities and evaluating potential mitigation techniques						
MU-2 Integrate Mitigation into Local Planning - Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts						
MU-2 Integrate Mitigation into Local Planning - Incorporate a stand-alone element for hazard mitigation into the local comprehensive (land use) plan						
MU-2 Integrate Mitigation into Local Planning - Incorporate hazard mitigation into broader growth management (i.e.,						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Smart Growth) initiatives.						
MU-2 Integrate Mitigation into Local Planning - Incorporate a hazard risk assessment into the local development and subdivision review process.						
MU-3 Monitor Mitigation Plan Implementation - Form a plan implementation steering committee to monitor progress on local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government						
MU-3 Monitor Mitigation Plan Implementation - Prepare a plan implementation monitoring schedule and outlining roles for those responsible for monitoring (i.e., local departments, agencies, and committees)						
MU-3 Monitor Mitigation Plan Implementation - Prepare and submit an annual plan implementation progress report to the local elected body						
MU-4 Protect Structures - Acquire or relocating structures located in hazard areas						
MU-4 Protect Structures - Assess the need to retrofit fire and police stations to become hazard resistant						
MU-5 Increase Hazard Education and Risk Awareness - Develop and implement a multi-hazard public awareness program						
MU-5 Increase Hazard Education and Risk Awareness - Establish a “hazard awareness week” in coordination with the media to promote hazard awareness (seasonal)						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
MU-5 Increase Hazard Education and Risk Awareness - Create a speaker's bureau for disaster-related topics that focus on mitigation and preparedness measures						
<i>Add New Action Items if Applicable</i>						
DROUGHTS/HEAT WAVES						
D-1 Assess Vulnerability to Drought Risk - Gather and analyze water and climate data to gain a better understanding of local climate and drought history						
D-1 Assess Vulnerability to Drought Risk - Identify factors that affect the severity of a drought						
D-1 Assess Vulnerability to Drought Risk - Identify available water supplies						
D-1 Assess Vulnerability to Drought Risk - Determine how the community and its water sources have been impacted by droughts in the past						
EARTHQUAKES						
<i>EQ-a Ongoing -- Incorporate Earthquake Mitigation into Local Planning.</i> Whatcom County has incorporated building mitigation strategies for earthquakes into the Comprehensive Plan.						
<i>EQ-b Ongoing -- Conduct Inspections of Building Safety</i> Building safety inspections are carried out on a continual and regular basis.						
<i>EQ-c Ongoing -- Increase Earthquake Risk Awareness.</i> The Whatcom County Sheriff's Office Division of Emergency Management promotes earthquake awareness on a continual and ongoing basis.						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
EQ-1 Increase Earthquake Risk Awareness - Develop an outreach program about earthquake risk and mitigation activities in homes, schools, and businesses						
EQ-2 Conduct Outreach to Builders, Architects, Engineers, and Inspectors - Training building department staff and officials on Form ATC-20 for post-earthquake building evaluation. The ATC-20 report and addendum, prepared by the Applied Technology Council, provide procedures and guidelines for making on-the-spot evaluations and decisions regarding continued use and occupancy of earthquake-damaged buildings						
<i>Add New Action Items if Applicable</i>						
EROSION						
ER-1 Map and Assess Vulnerability to Erosion - Use GIS to identify and map erosion hazard areas						
ER-1 Map and Assess Vulnerability to Erosion - Develop and maintain a database to track community vulnerability to erosion						
ER-1 Map and Assess Vulnerability to Erosion - Use GIS to identify concentrations of at-risk structures						
<i>Add New Action Items if Applicable</i>						
LANDSLIDES						
LS-a Ongoing -- Manage Development in Landslide Hazard Areas. Whatcom County Planning and Development Services does manage development in Landslide Hazard Areas on a continual and ongoing basis.						
LS-1 Map and Assess Vulnerability to Landslides – Study areas where						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
riparian landslides may occur						
LS-1 Map and Assess Vulnerability to Landslides - Complete an inventory of locations where critical facilities, other buildings, and infrastructure are vulnerable to landslides						
LS-1 Map and Assess Vulnerability to Landslides - Use GIS to identify and map landslide hazard areas						
LS-1 Map and Assess Vulnerability to Landslides - Develop and maintaining a database to track community vulnerability to landslides						
Add New Action Items if Applicable						
FLOODING						
FL-a. Comprehensive Flood Hazard Management Plan						
FL-b. Adopt and Enforce Building Codes and Development Standards						
FL-c. Improve Flood Risk Assessment						
FL-d. Join or Improve Compliance with NFIP						
FL-e. Manage the Floodplain Beyond Minimum Requirements						
FL-f. Participate in the CRS						
FL-g. Remove Existing Structures from Flood Hazard Areas						
FL-h. Improve Stormwater Drainage System Capacity						
FL-i. Conduct Regular Maintenance for Drainage Systems and Flood Control Structures						
FL-j. Protect Infrastructure						
FL-k. Protect Critical Facilities						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
FL-l. Construct Flood Control Measures						
FL-m. Protect and Restore Natural Flood Mitigation Features						
FL-1 Incorporate Flood Mitigation in Local Planning						
FL-2 Form Partnerships to Support Floodplain Management						
FL-3 Limit or Restrict Development in Floodplain Areas						
FL-4 Improve Stormwater Management Planning						
FL-5 Adopt Policies to Reduce Stormwater Runoff						
FL-6 Establish Local Funding Mechanisms for Flood Mitigation						
FL-7 Elevate or Retrofit Structures and Utilities						
FL-8 Flood proof Residential and Non-Residential Structures						
FL-9 Preserve Floodplains as Open Space						
FL-10 Increase Awareness of Flood Risk and Safety						
FL-11 Educate Property Owners about Flood Mitigation Techniques						
Add New Action Items if Applicable						
ALLUEVIAL FANS						
AF-a. Map and Assess Alluvial Fans Hazards						
AF-b. Manage Development in Alluvial Fan Hazard Areas						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
AF-c. Promote or Require Site and Building Design Standards to Minimize Risk on Alluvial Fans						
AF-d. Remove Existing Buildings and Infrastructure from Erosion/Alluvial Fan Hazard Areas						
AF-e. Develop Basin-Specific Plans for Alluvial Fan Hazard Areas						
AF-f. Construct Mitigation Measures on Alluvial Fan Hazard Areas						
AF-g. Increase Awareness of Alluvial Fan Hazards						
<i>Add New Action Items if Applicable</i>						
COASTAL FLOODING (including STORM SURGE)						
CF-1 Map and Assess Vulnerability to Coastal Flooding - Model various “what-if” scenarios to estimate potential vulnerabilities in order to develop coastal mitigation priorities						
CF-1 Map and Assess Vulnerability to Coastal Flooding - Use GIS to map hazard areas, at-risk structures, and associated hazards (e.g., flood and storm surge) to assess high-risk areas						
CF-1 Map and Assess Vulnerability to Coastal Flooding - Develop an inventory of public buildings and infrastructure that may be particularly vulnerable to coastal flooding						
<i>Add New Action Items if Applicable</i>						
WINTER WEATHER						
WW-1 Conduct Winter Weather Risk Awareness Activities - Inform the public about severe winter weather impacts						
WW-1 Conduct Winter Weather Risk						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Awareness Activities - Distribute family and traveler emergency preparedness information about severe winter weather hazards						
WW-1 Conduct Winter Weather Risk Awareness Activities - Encourage homeowners to install carbon monoxide monitors and alarms						
WW-1 Conduct Winter Weather Risk Awareness Activities - Educating citizens that all fuel-burning equipment should be vented to the outside						
WW-2 Assist Vulnerable Populations - Organize outreach to vulnerable populations, including establishing and promoting accessible heating centers in the community						
<i>Add New Action Items if Applicable</i>						
SUBSIDENCE						
SU-1 Map and Assess Vulnerability to Subsidence - Use GIS to map areas that are susceptible to subsidence						
SU-1 Map and Assess Vulnerability to Subsidence - Identify and map old mining areas or geologically unstable terrain so that development can be prevented or eliminated						
SU-1 Map and Assess Vulnerability to Subsidence - Improve accuracy of hazard area maps to educate residents about unanticipated risks						
<i>Add New Action Items if Applicable</i>						
TSUNAMI						
TSU-1 Map and Assess Vulnerability to Tsunami - Using GIS to map areas that are vulnerable to inundation by tsunamis						
TSU-1 Map and Assess Vulnerability to						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Tsunami - Develop and maintain a database to track community vulnerability to tsunamis						
TSU-1 Map and Assess Vulnerability to Tsunami - Offer GIS hazard mapping online for residents and design professionals						
TSU-1 Map and Assess Vulnerability to Tsunami - Educate map users on the appropriate uses and limitations of maps						
TSU-1 Map and Assess Vulnerability to Tsunami - More accurately map problem areas to educate residents about unanticipated risks						
TSU-2 Manage Development in Tsunami Hazard Areas - Adopt and enforce building codes and design standards that contain requirements for tsunami-resistant design						
TSU-2 Manage Development in Tsunami Hazard Areas - Encourage new development that is configured to minimize tsunami losses by using site planning strategies that slow water currents, steer water forces, and block water forces						
TSU-3 Increase Public Awareness of Tsunami Hazard - Educate citizens regarding the dangers of tsunami and inform them of emergency procedures and routes to use should a tsunami warning be issued						
TSU-3 Increase Public Awareness of Tsunami Hazard - Conduct tsunami drills						
TSU-3 Increase Public Awareness of Tsunami Hazard - Designate tsunami inundation zones and evacuation routes						
TSU-3 Increase Public Awareness of Tsunami Hazard - Develop maps showing possible tsunami inundation areas						
TSU-3 Increase Public Awareness of						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
Tsunami Hazard - Participating in NOAA's TsunamiReady Community program						
<i>Add New Action Items if Applicable</i>						
WILDFIRE						
WF-1 Map and Assess Vulnerability to Wildfire - Use GIS mapping of wildfire hazard areas to facilitate analysis and planning decisions through comparison with zoning, development, infrastructure, etc						
WF-1 Map and Assess Vulnerability to Wildfire - Develop and maintain a database to track community vulnerability to wildfire						
WF-1 Map and Assess Vulnerability to Wildfire - Create a wildfire scenario to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities within a community to develop wildfire mitigation priorities						
WF-2 Require or Encourage Fire-Resistant Construction Techniques - Encourage the use of non-combustible materials for new construction in wildfire hazard areas						
WF-2 Require or Encourage Fire-Resistant Construction Techniques - Using fire resistant roofing and building materials in remodels, upgrades, and new construction						
WF-2 Require or Encourage Fire-Resistant Construction Techniques - Encourage enclosing the foundations of homes and other buildings in wildfire-prone areas, rather than leaving them open and potentially exposing undersides to blown embers or other materials						
WF-3 Create Defensible Space Around Structures and Infrastructure - Encourage creating buffers around residential and						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
non-residential structures through the removal or reduction of flammable vegetation, including vertical clearance of tree branches						
WF-3 Create Defensible Space Around Structures and Infrastructure - Encourage replacing flammable vegetation with less flammable species						
WF-3 Create Defensible Space Around Structures and Infrastructure - Encourage creating defensible zones around power lines, oil and gas lines, and other infrastructure systems						
WF-4 Participate in Firewise Program - Expand the “Firewise Communities/USA” recognition program sponsored by the National Wildlife Coordinating Group (firewise.org)						
WF-4 Participate in Firewise Program - Sponsor Firewise workshops for local officials, developers, civic groups, and neighborhood/homeowners’ associations						
WF-4 Participate in Firewise Program - Publicize Firewise guidance and encourage best practices in Whatcom County						
WF-5 Increase Wildfire Risk Awareness - Offer GIS hazard mapping online for residents, developers, and design professionals						
WF-5 Increase Wildfire Risk Awareness - Organize Fire District tours to show elected officials and planners the most vulnerable areas of the community’s wildland-urban interface and increase their understanding of risks						
WF-5 Increase Wildfire Risk Awareness - Develop partnerships with neighborhood groups, homeowners’ associations, and others to conduct outreach activities						



Unincorporated Whatcom County Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter): A. Completed; B. In Progress (on schedule); C. In Progress (delayed); D. Delayed Until Funding Available; E. Canceled					
	2021	2022	2023	2024	2025	Notes on yearly progress
WF-5 Increase Wildfire Risk Awareness - Conduct education programs in schools						
WF-5 Increase Wildfire Risk Awareness - Educate the public about evacuation procedures						
WF-5 Increase Wildfire Risk Awareness - Form a citizen plan implementation steering committee to monitor progress of local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government						
<i>Add New Action Items if Applicable</i>						
VOLCANIC						
VOL-1 – Update the 2019 Mount Baker Action Plan						
VOL-2 – Update the latest USGS geologic risks related to Mount Baker and publish in Whatcom County GIS						
VOL-3 – Conduct Whatcom County table top exercise on updated plans and risks.						
<i>Add New Action Items if Applicable</i>						



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SECTION 4. PLAN MAINTENANCE

Annual Review and Updates to the Plan

The Plan will be reviewed annually by each of the major jurisdictions that have adopted the Plan. It will be evaluated to determine the effectiveness of mitigation programs, projects, or other related activities and changed accordingly. As new hazard threats arise, or mitigation data becomes available, it will be incorporated into the Plan. Each adopting jurisdiction is responsible for the section of the Plan that refers to its jurisdiction and to provide written changes, if any, annually to Whatcom County DEM prior to each annual public meeting.

Note: Each participating jurisdiction is responsible for monitoring and performing an annual review of their proposed 2021 to 2025 hazard specific action items. Instructions are found in the Annual Review and Progress Report of their Community Profile.

By adopting the Plan, jurisdictions will notify the Whatcom County DEM of status updates regarding assets, mitigation planning, or general updates that occur during the 5-year cycle for the subsequent Plan update. If necessary, a public meeting will be held with representatives of the adopting jurisdictions present to answer any questions or concerns regarding their section of the Plan. Public notices will be posted to invite public participation in the process.

The County will use this plan as a resource in its planning efforts with other planning endeavors such as the Whatcom County Development Standards, and the Comprehensive Flood Hazard Management Plan, as well as the Comprehensive Emergency Management Plan. Local participating political jurisdictions will update Whatcom County DEM to any changes in how they integrated the plan into their capital improvement plans or comprehensive planning efforts during the 5-year cycle for the subsequent Plan update.

A written report containing a summary of any changes based on annual reviews will be produced by the DEM and sent to the WSHMO following each annual review. The annual reviews by each jurisdiction and the public meeting will conclude by November 30 each year. The DEM will facilitate the review process.

Major Plan Update and Plan Reviews



A major update to the Plan will be performed and published every 5 years. It will contain all changes in strategy, identified hazards, and project updates, and will incorporate new data as it relates to the Plan. The public will also be involved in this process through public meetings coordinated by the DEM. A copy of the updated Plan will be delivered to the WSHMO for approval and forwarding to FEMA, Region X. All the jurisdictions that have adopted the Plan within Whatcom County will receive a copy of the updated Plan once it is approved.

As changes are made to other plans, the plan will be used to review them for consistency, and changes will be incorporated into other plans as necessitated by review and update of this plan.

The next 5-year update will be delivered to the WSHMO within 30 days following December 31, 2025.

Date	Product
August 2021	First annual review/update
August 2022	Second annual review/update
August 2023	Third annual review/update
August 2024	Fourth annual review/update
January thru December 2025	Major Plan Update and resubmission



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SECTION 5: APPENDICES

Appendix A: Capabilities Identification

Appendix B: List of Acronyms and Abbreviations

Appendix C: Whatcom County Risk Assessment & Mitigation Strategies for Wildland Fire

Appendix D: National Flood Insurance Program Participation (NFIP)

Appendix E: Whatcom County Mitigation Ideas

Appendix F: Mitigation Action Progress Report Form

Appendix G: Whatcom County Contact List



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APPENDIX A: CAPABILITIES IDENTIFICATION

Types of Capabilities

The ability of a jurisdiction to develop an effective hazard mitigation plan depends upon its capability to implement policy and programs which is dependent on the type of jurisdiction. This ability comes from the different types of capabilities a jurisdiction maintains. The FEMA 386 publication describes a capability assessment and outlines the types of capabilities that should be considered:

- Legal and Regulatory
- Administrative and Technical
- Fiscal

Legal and regulatory capabilities refer to the laws, regulations, authorities, and policies that govern current and potential mitigation measures. This can be broken down into two basic areas, local and extra-local. Local are those generated by the local governing agency that the jurisdiction has control over. Extra-local laws, regulations, etc. are those from a different level of government. Administrative and technical capabilities refer to a jurisdiction's staff and technical resources, as well as completed plans and studies that have considered, directly or indirectly, the mitigation of natural hazards. Technical capabilities also include the existing electronic and systemic resources. Fiscal capabilities refer to the financial resources available to achieve the identified mitigation strategies.

For the organizational purposes of this plan, administrative capabilities are organizations, agencies or departments responsible for implementing or partnering to implement mitigation measures. The fiscal capabilities at the City level are thus correlated to the budgets and expenditures of these departments as well as the separate funds available for mitigation-related activities. For special purpose districts, fiscal capabilities center on levies, contracts, and grants.

For the purposes of this Plan the 10 jurisdictions have been placed into three categories or groups of jurisdictions: Cities/Towns, School Districts, and Special Purpose Districts.

Additionally, there are **State and Federal Capabilities**. These are the regulations that dictate what a specified jurisdiction in Washington can and cannot pursue with regards to mitigation, as well as what assistance may be available. They essentially cover the same 4 capability areas that are covered in local capabilities: **Legal and Regulatory, Administrative, Technical, and Fiscal**.



Extra-Local Fiscal Resources

One of the key issues in implementing mitigation measures is finding sufficient monetary resources to do it. Fiscal resources in the form of grants are available to jurisdictions in pursuing hazard reduction activities. Grants may be administered from the federal or state level, and in some instances may be administered by the private or non-profit sector. Each grant has specific requirements and uses varying elements to conduct benefit-cost analysis. The purpose of the benefit-cost analysis is to determine if the benefits of the project exceed the costs of the project. Jurisdictions should coordinate with the administering agency to understand the program-specific requirements and conduct the required analyses.

For example, if either Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation (PDM) funding is involved in a hazard mitigation project, the jurisdiction involved will conduct a benefit-cost analysis based on guidelines provided by U.S. Department of Homeland Security, FEMA, and Washington Emergency Management Division on how to determine cost-effectiveness of mitigation projects and how to calculate the benefit-cost ratio. Both the HMGP and PDM require a benefit-cost ratio of at least 1.0 for a project to be considered for funding.

Contained on the following pages are some of the major federal resources that currently may be used to secure funding to pursue implementation of mitigation measures. In addition, there is a list of State agencies that have mitigation capabilities and, in some cases, have funds that can assist with mitigation projects. Because the funding source, available funding, requirements, and type and number of grants is constantly changing, this assessment will outline neither all potential grants nor the detailed requirements of those grants that are mentioned. The websites listed here were accessed and confirmed just prior to the finalization of this document.

Federal Capabilities

The Federal Emergency Management Agency's (FEMA) Mitigation Grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. Currently, FEMA administers the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, and the Pre-Disaster Mitigation (PDM) program, the Repetitive Flood Claims (RFC) program, and the Severe Repetitive Loss (SRL) program.

FEMA's mitigation grants are provided to eligible Applicant States/Tribes/Territories that, in turn, provide sub-grants to local governments. The Applicant selects and prioritizes applications developed and submitted to them by local jurisdictions to submit to FEMA for grant funds.



Prospective Sub-applicants should consult the official designated point of contact for their Applicant State/Tribe/Territory for further information regarding specific program and application requirements.

For more information on the mitigation grant programs, see below:

Pre-Disaster Mitigation Grant Program (PDM)

<http://www.fema.gov/pre-disaster-mitigation-grant-program>

The PDM program provides funds to states, territories, Indian tribal governments, communities, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. PDM grants are to be awarded on a competitive basis and without reference to state allocations, quotas, or other formula-based allocation of funds.

Hazard Mitigation Grant Program (HMGP)

<http://www.fema.gov/hazard-mitigation-grant-program-hmgp>

The HMGP provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Flood Mitigation Assistance (FMA) Program

<http://www.fema.gov/flood-mitigation-assistance-program>

The FMA program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the [National Flood Insurance Program](#) (NFIP). FEMA provides FMA funds to assist States and communities implement measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program.

Repetitive Flood Claims Program (RFC)

<http://www.fema.gov/repetitive-flood-claims-program>

The RFC grant program was authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 (P.L. 108–264), which amended the National Flood Insurance Act (NFIA) of 1968 (42 U.S.C. 4001, et al). Up to \$10 million is available annually for FEMA to provide RFC



funds to assist States and communities reduce flood damages to insured properties that have had one or more claims to the [National Flood Insurance Program \(NFIP\)](#).

Severe Repetitive Loss Program (SRL)

<http://www.fema.gov/severe-repetitive-loss-program>

The SRL grant program was authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which amended the National Flood Insurance Act of 1968 to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss (SRL) structures insured under the [National Flood Insurance Program \(NFIP\)](#).

The definition of severe repetitive loss as applied to this program was established in section 1361A of the National Flood Insurance Act, as amended (NFIA), 42 U.S.C. 4102a. An SRL property is defined as a **residential property** that is covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. For both (a) and (b) above, at least two of the referenced claims must have occurred within any ten-year period, and must be greater than 10 days apart.

AFGP Fire Prevention & Safety Grants (DHS)

www.fema.gov/firegrants/fpsgrants/index.shtml

The Fire Prevention and Safety Grants (FP&S) are part of the Assistance to Firefighters Grants (AFG) and are under the purview of the Grant Programs Directorate in the Federal Emergency Management Agency. FP&S grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and mitigate high incidences of death and injury. Examples of the types of projects supported by FP&S include fire prevention and public safety education campaigns, juvenile firesetter interventions, media campaigns, and arson prevention and awareness programs. In fiscal year 2005, Congress reauthorized funding for FP&S and expanded the eligible uses of funds to include Firefighter Safety Research and Development.

Fire Prevention and Safety Grants

<http://www.firegrantshelp.com/search-grants/453560-fire-prevention-and-safety-fp-s-grants/>

FP&S offers grants to support activities in two categories:

- activities designed to reach high-risk target groups and mitigate incidences of death and injuries caused by fire and fire-related hazards (“Fire Prevention and Safety Activity”);
- research and development activities aimed at improving firefighter safety (“Firefighter Safety Research and Development Activity”).



Buffer Zone Protection Program (BZPP)

http://www.dhs.gov/files/programs/gc_1265397547397.shtm

BZPP provides grants to build security and risk-management capabilities at the State and local level in order to secure pre-designated Tier I and Tier II critical infrastructure sites, including chemical facilities, financial institutions, nuclear and electric power plants, dams, stadiums, and other high-risk/high-consequence facilities.

Community Development Block Grants (CDBG)

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/>

These grants are a source of funding for hazard mitigation initiatives. The objective of the CDBG program is to assist communities in rehabilitating substandard dwelling structures and to expand economic opportunities, primarily for low-to-moderate-income families. Following a Presidential declared disaster, CDBG funds may be used for long-term needs such as acquisition, reconstruction, and redevelopment of disaster-affected areas.

Disaster Preparedness and Response for Schools and Universities

<http://www.edfacilities.org/rl/disaster.cfm>

National Clearinghouse for Educational Facilities (NCEF's) resource list of links, books, and journal articles on building or retrofitting schools to withstand natural disasters and terrorism, developing emergency preparedness plans, and using school buildings to shelter community members during emergencies.

Emergency Management Program Grants (EMPG)

<http://www.fema.gov/non-disaster-grant-management-system>

The EMPG program provides resources to assist State and local governments to sustain and enhance all-hazards emergency management capabilities. States have the opportunity to use EMPG funds to further strengthen their ability to support emergency management activities while simultaneously addressing issues of national concern as identified in the National Priorities of the National Preparedness Guidelines. EMPG has a 50 percent Federal and 50 percent State cost-share cash or in-kind match requirement.

Environmental Protection Agency's National Estuary Program

<http://www.epa.gov/nep/>

The EPA's National Estuary Program was established by Congress in 1987 to improve the quality of estuaries of national importance. The [Clean Water Act Section 320](#) directs EPA to develop plans for attaining or maintaining water quality in an estuary. This includes protection of public



water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on water, requires that control of point and nonpoint sources of pollution to supplement existing controls of pollution. In several cases, more than one State is participating in a National Estuary Program. Each program establishes a [Comprehensive Conservation and Management Plan](#) to meet the goals of Section 320.

Hazardous Materials Emergency Preparedness (HMEP) Grant Program

<http://hazmat.dot.gov/training/state/hmep/hmep.htm>

The Hazardous Materials Emergency Preparedness (HMEP) grant program is intended to provide financial and technical assistance as well as national direction and guidance to enhance State, Territorial, Tribal, and local hazardous materials emergency planning and training. The HMEP Grant Program distributes fees collected from shippers and carriers of hazardous materials to emergency responders for hazmat training and to Local Emergency Planning Committees (LEPCs) for hazmat planning.

Homeland Security Grant Program

<http://www.fema.gov/government/grant/hsgp/index.shtm>

This core assistance program provides funds to build capabilities at the State and local levels through planning, organization, equipment, training, and exercise activities. State Homeland Security Program (SHSP) also supports the implementation of State homeland security strategies and key elements of the national preparedness architecture, including the National Preparedness Guidelines, the National Incident Management System and the National Response Framework.

The Homeland Security Grant Program (HSGP) plays an important role in the implementation of Presidential Policy Directive – 8 (PPD-8) by supporting the development and sustainment of core capabilities to fulfill the National Preparedness Goal (NPG). HSGP is comprised of three interconnected grant programs:

- State Homeland Security Program (SHSP)
- Urban Areas Security Initiative (UASI)
- Operation Stonegarden (OPSG)

Together, these grant programs fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration.

National Earthquake Hazards Reduction Program

<http://www.nehrp.gov/index.htm>



The National Earthquake Hazards Reduction Program (NEHRP) was established by the U.S. Congress when it passed the Earthquake Hazards Reduction Act of 1977, Public Law (PL) 95–124. At the time of its creation, Congress' stated purpose for NEHRP was "to reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program." In establishing NEHRP, Congress recognized that earthquake-related losses could be reduced through improved design and construction methods and practices, land use controls and redevelopment, prediction techniques and early-warning systems, coordinated emergency preparedness plans, and public education and involvement programs.

National Weather Service

<http://www.weather.gov/>

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.

Port Security Grant Program (PSGP)

<http://www.fema.gov/port-security-grant-program>

The PSGP provides grant funding to port areas for the protection of critical port infrastructure from terrorism. PSGP funds help ports enhance their risk management capabilities, domain awareness, training and exercises, and capabilities to prevent, detect, respond to, and recover from attacks involving improvised explosive devices and other non-conventional weapons.

Urban Areas Security Initiative Nonprofit Security Grant Program

<http://www.fema.gov/preparedness-non-disaster-grants/urban-areas-security-initiative-nonprofit-security-grant-program>

Nonprofit Security Grants Program (NSGP) provides funding support for target hardening and other physical security enhancements and activities to nonprofit organizations that are at high risk of a terrorist attack and located within one of the specific FY 2012 UASI-eligible urban areas. The FY 2012 NSGP plays an important role in the implementation of the Presidential Policy Directive – 8 by supporting the development and sustainment of core capabilities to fulfill the National Preparedness Goal.

Problem Solving Partnerships Grant Program (COPS)

<http://www.cops.usdoj.gov/>

The COPS Office has distributed over \$12 billion to advance community policing since it was created in 1994. This funding supports a wide range of activities. COPS funding helps local law



enforcement agencies hire, equip, and train new community policing professionals. COPS funding helps redeploy existing officers into their communities and studies ways to maximize the impact they have on the people who live there. COPS funds a wide variety of strategies to advance community policing through innovative techniques and technologies.

Transit Security Grant Program

<http://www.fema.gov/transit-security-grant-program>

TSGP provides funds to owners and operators of transit systems (which include intracity bus, commuter bus, ferries, and all forms of passenger rail) to protect critical surface transportation infrastructure and the traveling public from acts of terrorism and to increase the resilience of transit infrastructure. The TSGP plays an important role in the implementation of PPD-8 by supporting the development and sustainment of core capabilities to fulfill the National Preparedness Goal (NPG).

Rural Development-Housing & Community Facilities Programs

http://www.rurdev.usda.gov/rhs/cf/brief_cp_grant.htm

Community Programs provides grants to assist in the development of essential community facilities in rural areas and towns of up to 20,000 in population. Grants are authorized on a graduated scale. Applicants located in small communities with low populations and low incomes will receive a higher percentage of grants. Grants are available to public entities such as municipalities, counties, and special-purpose districts, as well as non-profit corporations and tribal governments.

Grant funds may be used to assist in the development of essential community facilities. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety, and community and public services. This can include the purchase of equipment required for a facility's operation. A grant may be made in combination with other Community Facilities financial assistance such as a direct or guaranteed loan, applicant contributions, or loans and grants from other sources.

Volunteers in Police Service (VIPS) Program

<http://www.policevolunteers.org/>

The VIPS Program provides support and resources for agencies interested in developing or enhancing a volunteer program and for citizens who wish to volunteer their time and skills with a community law enforcement agency. The program's ultimate goal is to enhance the capacity of state and local law enforcement to utilize volunteers.

Western Regional Climate Action Initiative

<http://www.westernclimateinitiative.org/>



The Western Climate Initiative (WCI) is a collaboration which was launched in February 2007 by the Governors of Arizona, California, New Mexico, Oregon and Washington to develop regional strategies to address climate change. WCI is identifying, evaluating and implementing collective and cooperative ways to reduce greenhouse gases in the region.

State Capabilities

Various law and rules have been identified in Washington State as supporting hazard mitigation. These can be found in Revised Code of Washington (RCW) and Washington Administrative Code (WAC). Washington State Constitution further identifies who does what and the basic rights in the State.

Various State of Washington State Agencies/Departments have mitigation capabilities:

- Community, Trade, Economic Development <http://www.cted.wa.gov/>
- Department of Fish and Wildlife <http://wdfw.wa.gov/>
- Department of Ecology <http://www.ecy.wa.gov/> Department of Labor and Industries <http://www.lni.wa.gov/>
- Department of Natural Resource <http://www.dnr.wa.gov/>
- Department of Transportation <http://www.wsdot.wa.gov/>
- Governor's Office <http://www.governor.wa.gov/>
- Military Department (Emergency Management Division) <http://www.emd.wa.gov/>
- Office of Superintendent of Public Instruction <http://www.k12.wa.us/>
- Washington State Patrol <http://www.wsp.wa.gov/>

Other various capabilities in Washington State:

- Association of Washington Cities <http://www.awcnet.org/>
- Association of Washington Counties <http://www.wacounties.org/>
- Cascade Land Conservancy <http://www.cascadeland.org/>
- Municipal Research of Washington <http://www.mrsc.org/>
- Structural Engineers Association of Washington <http://www.seaw.org/>
- WA Association of Building Officials <http://wabo.org/>
- WA Association of Fire Chiefs <http://www.wsafc.org/>



- WA Association of Maintenance & Operations Administrators <http://www.wamoa.org/>
- WA Association of Sheriffs & Police Chiefs <http://www.waspc.org/>
- WA Emergency Management Association <http://www.wsema.com/>
- WA Firefighter Association <http://www.wsffa.org/>
- WA Fire Commissioners Association <http://www.wfca.wa.gov/default.asp>
- Washington Public Ports Administration <http://www.washingtonports.org/>
- Washington Schools Risk Management Pool <http://www.wsrmp.com/>

Local Capabilities

Each of the 10 individual jurisdictions has extensive local capabilities in their individual documents. Any websites associated with these local capabilities will be found within the 10 jurisdictions' addenda.

Mitigation Tools	Yes/No	Comments
Jurisdictional Capabilities		
Comprehensive Plan	Yes	
Capital Facilities Element	Yes	
Environmental & Critical Areas Element	Yes	
Land Use Element	Yes	
County Code	Yes	
Building/Fire Code	Yes	
Critical Areas	Yes	
Shoreline Regulations	Yes	
Zoning	Yes	
Critical Areas Regulations	Yes	
Flood Hazards	Yes	
Administrative Tools		
County Executive (elected official)	Yes	
County Council (elected officials)	Yes	
Planning & Land Services	Yes	
Board of Adjustment/Hearing Examiner	Yes	
Commercial Fire Safety/Code Inspection	Yes	
Regional Capabilities		
Hazard Mitigation Planning Team	Yes	
Local Business Districts	Yes	
Local Emergency Management	Yes	
Local Fire Agencies	Yes	





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APPENDIX B: LIST OF ACRONYMS AND ABBREVIATIONS

ACS	Auxiliary Communications Service
AFG	Assistance to Firefighters Grants
AHAB	All Hazard Alert Broadcast Siren
APA	Approval Pending Adoption
AWIA	America’s Water infrastructure Act of 2018
BBWARM	Birch Bay area of Whatcom County Stormwater Program
B.C.	British Columbia
BCT	Bellingham Cruise Terminal
BFD	Bellingham Fire Department
BLI	Bellingham International Airport
BMC	Bellingham Municipal Code
BMC	Blaine Municipal Code
BST	Bellingham Shipping Terminal
BZPP	Buffer Zone Protection Program
Cascades	The Cascade Range
CDBG	Community Development Block Grants
CDS	Community Development Services
CEMP	Comprehensive Emergency Management Plan
CERT	Community Emergency Response Team
CFHMP	Comprehensive Flood Hazard Management Plan
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
COSMOS	Coastal Storm Modeling Systems
CRS	Community Rating System
CSZ	Cascadia Subduction Zone
CTP	Cooperating Technical Partners
CWPP	Community Wildfire Protection Plan
DMA	Disaster Mitigation Act of 2000
DEM	Division of Emergency Management
EF	Essential Facility
EIS	Environmental Impact Statement
EMD	Emergency Management Division
EMPG	Emergency Management Program Grants
EOC	Emergency Operations Center
EPA	Environmental Protection Agency



E&PS	Environmental and Planning Services
FCZD	Flood Control Zone District
FEMA	Federal Emergency Management Agency
FERN	Ferndale Emergency Response Network
FIPS	Federal Information Processing Standards
FLIP	Floodplain Integrated Planning Process
FMA	Flood Mitigation Assistance
FMC	Ferndale Municipal Code
FP&S	Fire Prevention and Safety Grants
FR	Federal Regulation
GIS	Geographic Information Systems
GMA	Growth Management Act
HIVA	Hazard Identification and Vulnerability Analysis
HMF	Hazardous Materials Facility
HMF	Hazard Mitigation Forum
HMEP	Hazardous Materials Emergency Preparedness Grants Program
HMGP	Hazard Mitigation Grant Program
HPL	High Potential Loss
HSGP	Homeland Security Grant Program
I-5	Interstate 5
IBC	International Building Code
ICC	International Code Council
ICT	Interagency Coordination Team
IFPL	Industrial Fire Precaution Level
IPAWS	Integrated Public Alert and Warning System
IRC	International Residential Code
KGMI	Emergency Alert System Station 790 AM
LAMIRD	Limited Area of More Intense Rural Development
LF	Linear Feet
LFD	Lynden Fire Department
LiDAR	Light Detection and Ranging
LUS	Lifeline Utility System
MAR	Managed Aquifer Recharge
MLLW	Mean Lower Low Water
MMI	Modified Mercalli Intensity Scale
MOST	Method of Splitting Tsunami
mph	miles per hour



MU	Multiple Hazards
NAD	North American Datum of 1983
NEHRP	National Earthquake Hazard Reduction Program
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHMP	Natural Hazards Mitigation Plan
NOA	Naturally Occurring Asbestos
NOAA	National Oceanic and Atmospheric Association
NPDES	National Pollutant Discharge Elimination System
NPG	National Preparedness Goal
NTHMP	National Tsunami Hazard Mitigation Program
NW	Northwest
NWAC	Northwest Avalanche Center
NWS	National Weather Service
OEM	Office of Emergency Management
OFM	Office of Financial Management
OHV	Off Highway Vehicle
OPSG	Operation Stonegarden
PDM	Pre-Disaster Mitigation
PL	Public Law
Plan	Whatcom County Natural Hazards Mitigation Plan
PSE	Puget Sound Energy
PSGP	Port Security Grant Program
PUD	Public Utility District
PW	Public Works
RAMS	Risk Assessment and Mitigation Strategy
RCW	Revised Code of Washington
RFL	Repetitive Flood Loss Property
SCSMAP	Swift Creek Sediment Management Action Plan
SHMO	State Hazard Mitigation Officer
SHSP	State Homeland Security Program
SLIP	Streamline Landslide Mapping Protocol
SRL	Severe Repetative Loss Program
SR	State Route
SWIF	System-Wide Improvement Framework
TIME	Tsunami Inundation Mapping Effort
TSGP	Transit Security Grant Program



UASI	Urban Areas Security Initiative
UGA	Urban Growth Area
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USGS	U.S. Geological Society
VMC	Volunteer Mobilization Center
WABO	Washington Association Building Officials
WAC	Washington Administrative Code
WCI	Western Climate Initiative
WCNHMP	Whatcom County Natural Hazard Mitigation Plan
WCSO	Whatcom County Sheriff's Office
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WGS	Washington Geological Survey
WPSAPS	Wildfire Prevention Spatial Assessment and Planning Strategies
WSCP	Water Shortage Contingency Plan
WSDOT	Washington State Department of Transportation
WTA	Whatcom Transportation Authority
WSHMO	Washington State Hazard Mitigation Officer
WUI	Wildland/Urban Interface



APPENDIX C: WHATCOM COUNTY RISK ASSESSMENT & MITIGATION STRATEGIES FOR WILDLAND FIRE

This Assessment has been prepared for the Whatcom County using the Risk Assessment and Mitigation Strategies (RAMS) planning process. RAMS was developed for fire managers to be a holistic approach to analyzing wildland FUELS, HAZARD, RISK, VALUE, and SUPPRESSION CAPABILITY. It considers the effects of fire on unit ecosystems by taking a coordinated approach to planning at a landscape level and allows users to develop fire prevention and/or fuels treatments programs.

The steps involved in this process include:

- Identification of spatial Compartments for study
- Fire Management Zone 37 = Whatcom County
- Assessment of significant issues within each Compartment

Compartment 13: 37653 Part 1

Compartment 13 contains 295,228 acres in Fire Management Zone 37. The Compartment experiences 4.00 fires per year, totaling 5 acres. The characteristics of the compartment indicate that: Catastrophic Fire Likely.

Fuels Hazard characteristics are rated:

- Fuels (flame length produced): 8 + Feet (High)
- Crowning Potential: 0 - 2 (Low)
- Slope Percent: 0 - 20 (Low)
- Aspect: North (Low)
- Elevation: 0 - 3500 (High)

Protection Capability ratings are:

- Initial Attack: 21 - 30 minutes (Moderate)
- Suppression Complexity: Average (Moderate)

Ignition Risk factors include:

- Population Density - Wildland Urban Interface
 - 1001+ Dwellings/structures



- Power Lines In Unit
 - Sub-station
 - Distribution Lines
 - Transmission Lines
- Industrial Operations
 - Active timber sale
 - Maintenance/service contracts
 - Mining
 - Debris/slash burning
 - Construction project
- Recreation
 - Dispersed camping areas, party areas, hunters, water based, hiking
 - Off highway vehicle use
 - Developed camping areas
- Flammables Present
 - Powder magazine
 - Gas pumps or storage
 - Gas or oil wells/transmission
- Other
 - Woodcutting area, power equipment
 - Dump
 - Fireworks, children with matches
 - Electronic installations
 - Shooting/target
 - Government operations
 - Cultural Activities
 - Incendiary
- Railroads
 - Railroads are present
- Transportation System
 - Public Access Road(s)
 - County road(s)
 - State/Federal highway(s)
- Commercial Development
 - Camps, resorts, stables
 - Schools
 - Business, agricultural/ranching



Compartment 13: 37653 Part II

Compartment Values are characterized:

- Recreation: Developed recreation site within or adjacent to area **(High)**
- Administrative: High value or numerous administrative sites **(High)**
- Wildlife/Fisheries: Highly significant habitat **(High)**
- Range Use: Range allotment within area, normal/average use **(Moderate)**
- Watershed: Stream Class PI, I. Important water use/riparian area. Domestic water use **(High)**
- Forest/Woodland: Standing timber/woodland on 26 - 50% of area **(Moderate)**
- Plantations: 15% or less of area in or programmed for plantations **(Low)**
- Private Property: High loss and threat potential due to numbers and placement **(High)**
- Cultural Resources: Archaeological/historical findings of high significance **(High)**
- Special Interest Areas: Area is adjacent to a Special Interest area **(Moderate)**
- Visual Resources: Maximum modification dominates **(Low)**
- T&E Species: Species present **(High)**
- Soils (Erosion): Low significance (EHR < 4) **(Low)**
- Airshed: High receptor sensitivity **(High)**
- Vegetation: Potential for sensitive plants **(Moderate)**

Compartment 14: 37656 Part I

Compartment 14 contains 360,471 acres in Fire Management Zone 37. The Compartment experiences 8.00 fires per year, totaling 98 acres. The characteristics of the compartment indicate that: Catastrophic Fire Likely.

Fuels Hazard characteristics are rated:

- Fuels (flame length produced): 8 + Feet **(High)**
- Crowning Potential: 6 + **(High)**
- Slope Percent: 21 - 35 **(Moderate)**
- Aspect: North **(Low)**
- Elevation: 0 - 3500 **(High)**

Protection Capability ratings are:

- Initial Attack: 31+ minutes **(High)**
- Suppression Complexity: Complex **(High)**

Ignition Risk factors include:

- Population Density - Wildland Urban Interface
 - 1001+ Dwellings/structures
- Power Lines In Unit



- Transmission Lines
- Distribution Lines
- Sub-station
- Industrial Operations
 - Active timber sale
 - Construction project
 - Debris/slash burning
 - Mining
 - Maintenance/service contracts
- Recreation
 - Dispersed camping areas, party areas, hunters, waterbased, hiking
 - Developed camping areas
 - Off highway vehicle use
- Flammables Present
 - Powder magazine
 - Gas or oil wells/transmission
 - Gas pumps or storage
- Other
 - Fireworks, children with matches
 - Electronic installations
 - Woodcutting area, power equipment
 - Shooting/target
 - Government operations
 - Incendiary
 - Cultural Activities
 - Dump
- Railroads
 - Railroads are present
- Transportation System
 - State/Federal highway(s)
 - County road(s)
 - Public Access Road(s)
- Commercial Development
 - Schools
 - Camps, resorts, stables
 - Business, agricultural/ranching

Compartment 14: 37656 Part II

Compartment Values are characterized:

- Recreation: Developed recreation site within or adjacent to area **(High)**
- Administrative: High value or numerous administrative sites **(High)**



- Wildlife/Fisheries: Highly significant habitat **(High)**
- Range Use: Range allotment within area, normal/average use **(Moderate)**
- Watershed: Stream Class PI, I. Important water use/riparian area. Domestic water use. **(High)**
- Forest/Woodland: Standing timber/woodland on 51+% of area **(High)**
- Plantations: 31+% or less of area in or programmed for plantations **(High)**
- Private Property: High loss and threat potential due to numbers and placement **(High)**
- Cultural Resources: Archaeological/historical findings of high significance **(High)**
- Special Interest Areas: Area is adjacent to a Special Interest area **(Moderate)**
- Visual Resources: Partially retain existing character **(Moderate)**
- T&E Species: Species present **(High)**
- Soils (Erosion): Moderately erodible (EHR 4-12) **(Moderate)**
- Airshed: High receptor sensitivity **(High)**
- Vegetation: Potential for sensitive plants **(Moderate)**

Compartment 15: 37658 Part I

Compartment 15 contains 948,133 acres in Fire Management Zone 37. The Compartment experiences 1.00 fires per year, totaling 6 acres. The characteristics of the compartment indicate that: Catastrophic Fire Possible.

Fuels Hazard characteristics are rated:

- Fuels (flame length produced): 8 + Feet (High)
- Crowning Potential: 3 - 5 (Moderate)
- Slope Percent: 36 + (High)
- Aspect: South (High)
- Elevation: 5001 + (Low)

Protection Capability ratings are:

- Initial Attack: 31+ minutes (High)
- Suppression Complexity: Simple (Low)

Ignition Risk factors include:

- Population Density - Wildland Urban Interface
 - 501-1000 Dwellings/structures
- Power Lines In Unit
 - Transmission Lines
 - Sub-station
 - Distribution Lines



- Industrial Operations
 - Debris/slash burning
 - Mining
 - Construction project
 - Active timber sale
 - Maintenance/service contracts
- Recreation
 - Dispersed camping areas, party areas, hunters, waterbased, hiking
 - Developed camping areas
 - Off highway vehicle use
- Flammables Present
 - Powder magazine
 - Gas or oil wells/transmission
 - Gas pumps or storage
- Other
 - Electronic installations
 - Fireworks, children with matches
 - Woodcutting area, power equipment
 - Shooting/target
 - Government operations
 - Incendiary
 - Cultural Activities
 - Dump
- Railroads
 - Railroads are present
- Transportation System
 - State/Federal highway(s)
 - Public Access Road(s)
 - County road(s)
- Commercial Development
 - Schools
 - Camps, resorts, stables
 - Business, agricultural/ranching

Compartment 15: 37658 Part II

Compartment Values are characterized:

- Recreation: Developed recreation site within or adjacent to area **(High)**
- Administrative:

Few or no administrative sites **(Low)**



- Wildlife/Fisheries: Highly significant habitat **(High)**
- Range Use: Little or no range use **(Low)**
- Watershed: Stream Class PI, I. Important water use/riparian area. Domestic water use **(High)**
- Forest/Woodland: Standing timber/woodland on 51+% of area **(High)**
- Plantations: 16 - 30% or less of area in or programmed for plantations **(Moderate)**
- Private Property: Little or no threat or loss potential **(Low)**
- Cultural Resources: Minimal archaeological/historical findings, potential for Native American use **(Moderate)**
- Special Interest Areas: Area is adjacent to a Special Interest area **(Moderate)**
- Visual Resources: Preserve and retain existing character **(High)**
- T&E Species: Species present. (High)
- Soils (Erosion): Moderately erodible (EHR 4-12) **(Moderate)**
- Airshed: Low receptor sensitivity (Low)
- Vegetation: Potential for sensitive plants **(Moderate)**



APPENDIX D: NATIONAL FLOOD INSURANCE PROGRAM PARTICIPATION (NFIP)

F1-WHATCOM COUNTY National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community? What is the total premium and coverage?	CRS Floodplain Specialist ISO, Community Hazard Mitigation	994 policies in force \$224,779,300.00 insurance in force 17 repetitive loss properties 7 mitigated properties. The Repetitive Loss Structures in Whatcom are residential. This is based off the 2018 Washington State Repetitive Loss Record from the State Mitigation Strategist at the Washington Emergency Management Division. There may currently be different Repetitive Loss structure types located in Whatcom, but the 2018 Repetitive Loss Record is the best available data.
	How many claims have been paid in the community? What is the total amount of paid claims?	CRS Floodplain Specialist ISO, Community Hazard Mitigation	307 paid losses \$3,712,362.59 total losses paid



Topic	Considerations	Where to find Information	Answer
	How many of the claims were for substantial damage?		24 sub. damage claims since 1977
	Number of Structures exposed to flood risk within the community	Community Floodplain Administrator (FPA)	Approx. 5,043 Assessor parcels with improvement values (or structures) as of last map update (2019) plus new construction to date - we do not have the ability to do a precise structure count per parcel.
	Describe any areas of flood risk with limited NFIP policy coverage	Community FPA & FEMA Insurance Specialist	There is good coverage within the mapped floodplain areas. However, areas that could get damage due to flood events outside of the mapped floodplain (alluvial fan and channel migration zone areas)
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	Community FPA	Yes
	Is floodplain management an auxiliary duty?		No
	Is there a Certified Floodplain Manager on Staff?		Yes there are 2 CFM's currently on staff
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections,		Education and outreach includes an annual flood newsletter, , annual repetitive



Topic	Considerations	Where to find Information	Answer
	engineering capability)		loss mailing, annual letter to Insurance/Local Realtors/Lenders regarding flood insurance. Administrative includes: Floodplain inquiries, permit review, GIS education, comprehensive flood planning, and flood hazard reduction.
	What are the barriers to running an effective NFIP program in the community, if any?		Limited resources due to budget constraints and competing priorities
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		Last CAV was closed on 12/4/2017
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/cs b.shtm 	09/30/1977 regular entry
	When did the community's Flood Insurance Rate Maps (FIRMS) become effective?		September 30, 1977
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Paper and digital (DFIRM-GIS layers)



Topic	Considerations	Where to find Information	Answer
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	<ul style="list-style-type: none"> Community FPA 	Yes , was updated in 2019 to reflect new Countywide Flood Insurance Study (FIS) and exceeds minimum requirements.
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none"> Community FPA 	Applicant goes to Planning/ Development services for a permit. Permit is screened at the counter to determine if the project is located within the floodplain. If project is located within the floodplain it is routed to the Flood Division for a flood review and conditions are put on the applicable permit (see attached).
	Does the community participate in CRS?	<ul style="list-style-type: none"> Community FPA, Sate, FEMA NFIP 	Yes
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none"> Flood Insurance Manual Community status book report for state WA (fema.gov) 	6
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none"> Community FPA, FEMA CRS Coordinator, ISO representative 	CRS Activities: 310,320,330,360,4 30,502,510,520,45 0, 501,510,520,530,6 10
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none"> CRS manual https://www.fema.gov/sites/ 	Yes



Topic	Considerations	Where to find Information	Answer
		default/files/documents/fema_community-rating-system_coordinators-manual_2017.pdf	



NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	We could use additional staff, but hiring is limited due to budget issues. We have 3 staff eligible to take the CFM.
Compliance	When is the next Community Assistance visit anticipated? If unknown, discuss any need for CAV, CAC, or other compliance assistance.	Unknown We have recently requested concurrence from FEMA regarding compliance with Ag. Structures.
Flood Risk Maps	Are there flood prone areas that need new flood studies? What areas are highest priority and why? Does the community have new data that can be included in future flood map updates?	Currently, Whatcom County is in the process of finalizing a Levee Analysis and Mapping Procedure (LAMP) project to update the Flood Maps and FIS for the Lower Nooksack River Reaches 1-5. Draft Work Maps have been submitted to the communities for comment. Preliminary FIRMS or Maps and FIS is scheduled to be released in the Winter of 2021 with a projected Effective date of Fall 2023.
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	We actively provide outreach and education as documented in CRS program. We have developed a "Building in a Floodplain" brochure and diagram for permit inquiries and applicants. We also provide outreach materials on our website accessible to variety of audiences.
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	Whatcom County currently participates in the CRS program No, not at this time. Nothing at this time.



F2-CITY OF BELLINGHAM National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community? What is the total premium and coverage?	<ul style="list-style-type: none">State NFIP Coordinator or FEMA NFIP Specialist	95 policies in force \$33,986,900.00 insurance in force 2 repetitive loss properties. The Repetitive Loss Structures in Bellingham are non- residential. This is based off the 2018 Washington State Repetitive Loss Record from the State Mitigation Strategist at the Washington Emergency Management Division. There may currently be different Repetitive Loss structure types located in Bellingham, but the 2018 Repetitive Loss Record is the best available data.
	How many claims have been paid in the community? What is the total amount of	<ul style="list-style-type: none">FEMA NFIP or Insurance Specialist	29 paid claims \$702,702.51 total losses paid



Topic	Considerations	Where to find Information	Answer
	paid claims? How many of the claims were for substantial damage?		1 sub. damage claim since 1978
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	464
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none"> Community FPA & FEMA Insurance Specialist 	A portion of the Baker Creek floodplain is not within a study area while it has had repeated flooding. Flooding is somewhat dependent on system capacity issues with Interstate 5 and other State conveyance systems.
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	<ul style="list-style-type: none"> Community FPA 	Storm and Surface Water Utility Manager also acts as Floodplain Administrator
	Is floodplain management an auxiliary duty?		Yes
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		Plan reviewers are trained to determine if projects or structures are within floodplain boundaries with required review for all permits. GIS system has FEMA coverage for



Topic	Considerations	Where to find Information	Answer
			permit review. Permits are conditioned for no occupancy until all certifications are complete and returned.
	What are the barriers to running an effective NFIP program in the community, if any?		Change to true digital mapping may ease process.
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		11/28/2016 last CAV date
	Is a CAV or CAC scheduled or needed?		Changes to floodplains are forthcoming. A CAV would be appreciated.
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/csb.s.htm 	09/02/1982 regular entry.
	When did the community's Flood Insurance Rate Maps (FIRMS) become effective?		09/02/1982
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Digital
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	<ul style="list-style-type: none"> Community FPA 	Ordinances and maps updated and revised January 16, 2004. Deemed in compliance at that time.



Topic	Considerations	Where to find Information	Answer
		NFIP Continued Compliance Actions	

NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	For the amount of floodplain area within City existing staff level is sufficient. Ongoing training and/or refresher courses would be helpful.
Compliance	When is the next Community Assistance visit anticipated? If unknown, discuss any need for CAV, CAC, or other compliance assistance.	Unknown. Bellingham would welcome a CAV, however, the number of projects within flood areas has diminished. We are looking at a major stream rerouting project for Squalicum Creek that would be of interest.
Regulation	Are there potential ordinance changes to consider strengthening requirements? Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program? Could the community enhance its floodplain services?	City still working on potential changes to comply with BiOp. Digital mapping. We should enter CRS program.
Flood Risk Maps	Are there flood prone areas that need new flood studies? What areas are highest priority and why? Does the community have new data that can be included in future flood map updates?	Yes, Bellingham has apprised FEMA of flood areas on Baker Creek outside of the area of study in the past. Bellingham will likely be providing a new study for Squalicum Creek as a part of the stream reroute. A new study for Padden Creek will be needed as a result of a proposed project to daylight 1/2 mile of this stream that was formerly culverted. Priority for the City would be Squalicum and Padden Creeks.



Topic	Considerations	Answer
		It is expected that the City will be submitting data for those two projects.
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	Community outreach has not been a significant part of our program due to the limited nature of the flooding. Discussion of that lacking at a CAV would be appreciated.
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	Not Participating. Bellingham will consider entering CRS. It is likely that we need only to quantify some of the existing activities that we already do to receive a CRS class ranking.

F3-CITY OF BLAINE National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community?	<ul style="list-style-type: none"> State NFIP Coordinator or FEMA NFIP Specialist 	51 policies in force
	What is the total premium and coverage?		\$13,963,900.00 insurance in force
			0 repetitive losses
	How many claims have been paid in the community?	<ul style="list-style-type: none"> FEMA NFIP or Insurance Specialist 	3 paid losses
	What is the total amount of paid claims?		\$267,790.34 total paid losses
	How many of the claims were for substantial damage?		0 sub. damage claims since 1978
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	8 (eight)
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none"> Community FPA & FEMA Insurance Specialist 	Not aware of any
	Does the community have a	<ul style="list-style-type: none"> Community FPA 	No, covered by



Topic	Considerations	Where to find Information	Answer
Staff Resources	dedicated Floodplain Manager or NFIP Coordinator?		Community Development Director
	Is floodplain management an auxiliary duty?		Yes
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		Permit review
	What are the barriers to running an effective NFIP program in the community, if any? Lack of staff, funds, and minimal impact/benefit		
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		11/28/2016 last CAV date
	Is a CAV or CAC scheduled or needed?		Not scheduled, and not needed
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/csb.shtm 	07/16/1979 regular entry
	When did the community's Flood Insurance Rate Maps (FIRMS) become effective?		7/16/1979
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Digital
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	<ul style="list-style-type: none"> Community FPA 	Does not meet the recent ESA standards
	Provide an explanation of the	<ul style="list-style-type: none"> Community FPA 	Requests are



Topic	Considerations	Where to find Information	Answer
	permitting process and include a copy of floodplain permit.		reviewed for compliance in conjunction with Shoreline permits, and with building permits when Shoreline permit not required. It is a staff review for code compliance. We do not have a flood plain permit application.
	Does the community participate in CRS?	<ul style="list-style-type: none"> Community FPA, Sate, FEMA NFIP 	No
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none"> Flood Insurance Manual http://www.fema.gov/business/nfip/manual.shtm 	
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none"> Community FPA, FEMA CRS Coordinator, ISO representative 	
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none"> CRS manual http://www.fema.gov/library/viewRecord.do?id=2434 	

NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	
Compliance	When is the next Community Assistance visit anticipated? If unknown, discuss any need for CAV, CAC, or other compliance assistance.	
Regulation	<p>Are there potential ordinance changes to consider strengthening requirements?</p> <p>Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program?</p> <p>Could the community enhance its floodplain</p>	Yes, the ordinance can be revised to comply with the ESA requirements.



Topic	Considerations	Answer
	services?	
Flood Risk Maps	Are there flood prone areas that need new flood studies? What areas are highest priority and why? Does the community have new data that can be included in future flood map updates?	
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	

F4-CITY OF EVERSON National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community? What is the total premium and coverage?	<ul style="list-style-type: none">State NFIP Coordinator or FEMA NFIP Specialist	127 policies in force \$31,819,000.00 insurance in force 9 repetitive loss properties. The Repetitive Loss Structures in Everson are residential. This is based off the 2018 Washington State Repetitive Loss Record from the State Mitigation



Topic	Considerations	Where to find Information	Answer
			Strategist at the Washington Emergency Management Division. There may currently be different Repetitive Loss structure types located in Whatcom, but the 2018 Repetitive Loss Record is the best available data.
	How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	<ul style="list-style-type: none">FEMA NFIP or Insurance Specialist	48 paid losses \$464,029.21 total losses paid 2 Substantial Damage Claims
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none">Community Floodplain Administrator (FPA)	Number of structures in the "Flood Plain": 453 Number of structures in the "Floodway": 14 Number of residential structures in the "Flood Plain": 254 Number of residential structures in the "Floodway": 5 (data compiled 10/2007)
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none">Community FPA & FEMA Insurance Specialist	None
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP	<ul style="list-style-type: none">Community FPA	Yes



Topic	Considerations	Where to find Information	Answer
	Coordinator?		
	Is floodplain management an auxiliary duty?		Yes
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		Permit review, community outreach, administration services, inspections.
	What are the barriers to running an effective NFIP program in the community, if any?		Loss of floodplain specialist at DOE regional level makes floodplain management more difficult to find answers to specific questions.
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		12/11/2014 last CAV date
	Is a CAV or CAC scheduled or needed?		None scheduled
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/cs b.shtm 	08/02/1982 regular entry
	When did the community's Flood Insurance Rate Maps (FIRMS) become effective?		08/02/1982
	When did the community's Flood Insurance Rate Maps (FIRMS) become effective?		08/02/1982
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Digital
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum	<ul style="list-style-type: none"> Community FPA 	Meets



Topic	Considerations	Where to find Information	Answer
	requirements? If so, in what ways?		
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none"> Community FPA 	We provide a City prepared Development Assessment Flow Chart and Floodplain Development Permit for applicants to complete as part of the normal Building Permit application process.
	Does the community participate in CRS?	<ul style="list-style-type: none"> Community FPA, State, FEMA NFIP 	Yes
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none"> Flood Insurance Manual Community status book report for state WA (fema.gov) 	6
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none"> Community FPA, FEMA CRS Coordinator, ISO representative 	Activities 310 -630 are applied and we continue to review policies and procedures to improve our rating.
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none"> CRS manual http://www.fema.gov/library/vi-ewRecord.do?id=2434 	Yes

NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	Additional staff would be helpful to maximize the best possible rating for our community through application of all aspects of Activities 310-630.
Compliance	When is the next Community Assistance visit anticipated?	As scheduled by DOE.



	If unknown, discuss any need for CAV, CAC, or other compliance assistance.	
Regulation	<p>Are there potential ordinance changes to consider strengthening requirements?</p> <p>Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program?</p> <p>Could the community enhance its floodplain services?</p>	<p>Considering amendments to assess BAS ramifications.</p> <p>None at this time.</p> <p>Not at this time.</p>
Flood Risk Maps	<p>Are there flood prone areas that need new flood studies?</p> <p>What areas are highest priority and why?</p> <p>Does the community have new data that can be included in future flood map updates?</p>	<p>Johnson creek overflow corridor.</p> <p>No</p>
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	
Community Rating System (CRS)	<p>Does the community want to participate in the CRS program?</p> <p>Does the community want to improve its current CRS class ranking?</p> <p>Identify activities the community is or will be pursuing to gain CRS points.</p>	<p>We currently participate.</p> <p>Yes</p> <p>More community information assimilation. Policy review and revision</p>

F5-CITY OF FERNDAL National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community?	<ul style="list-style-type: none"> State NFIP Coordinator or FEMA NFIP Specialist 	<p>98 policies in force</p> <p>\$25,096,400.00</p>



Topic	Considerations	Where to find Information	Answer
	What is the total premium and coverage?		insurance in force. 1 9 repetitive loss properties. The Repetitive Loss Structures in Ferndale are residential. This is based off the 2018 Washington State Repetitive Loss Record from the State Mitigation Strategist at the Washington Emergency Management Division. There may currently be different Repetitive Loss structure types located in Ferndale, but the 2018 Repetitive Loss Record is the best available data.
	How many claims have been paid in the community?	<ul style="list-style-type: none"> FEMA NFIP or Insurance Specialist 	40 paid losses
	What is the total amount of paid claims?		\$1,061,601.64 total losses paid
	How many of the claims were for substantial damage?		10 sub. damage claims since 1978
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	Undetermined / Do not know
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none"> Community FPA & FEMA Insurance Specialist 	Undetermined / Do not know
Staff	Does the community have a dedicated Floodplain	<ul style="list-style-type: none"> Community FPA 	No



Topic	Considerations	Where to find Information	Answer
Resources	Manager or NFIP Coordinator?		
	Is floodplain management an auxiliary duty?		Yes – managed by Community Development Director or designee
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		City of Ferndale reviews development proposals for compliance with Floodplain Management requirements as defined by the Ferndale Municipal Code. Review may include modifications to development submittals.
	What are the barriers to running an effective NFIP program in the community, if any?		Public perception that FIRM's in certain portions of the City are inaccurate/ out of date. Lack of new modeling cannot verify or deny these claims.
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none">State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No / Unknown
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		9/19/2012 last CAV date. Note that the City has worked with FEMA (last contact 7/29/2011) in



Topic	Considerations	Where to find Information	Answer
Regulation			developing ordinances intended to comply with NMFS Biological Opinion
	Is a CAV or CAC scheduled or needed?		Unknown
	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/csb.s.htm 	06/01/1983 regular entry
	What did the community's Flood Insurance Rate Maps (FIRMS) become effective?		January 16, 2004
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Yes
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	<ul style="list-style-type: none"> Community FPA 	The current ordinance meets or exceeds standards at this time, but does not reflect Biological Opinion. City Council will consider adopting new standard that meets or exceeds standards on August 15th 2011.
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none"> Community FPA 	Review processes vary dramatically depending on specific land use proposal. Generally speaking, an application is made to the City, and is reviewed by the Community Development Department. If the development is proposed within a floodplain, the City will attach



Topic	Considerations	Where to find Information	Answer
			conditions to the development permit specifying the steps necessary to achieve compliance with flood regulations. In these cases, the development permit acts as the floodplain permit.
	Does the community participate in CRS?	<ul style="list-style-type: none"> Community FPA, Sate, FEMA NFIP 	Yes
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none"> Flood Insurance Manual Community status book report for state WA (fema.gov) 	6
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none"> Community FPA, FEMA CRS Coordinator, ISO representative 	N/A – However, while DOE/FEMA staff have been very cooperative on navigating various compliance issues, there haven't been opportunities to discuss ways to participate in incentive programs, etc.
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none"> CRS manual http://www.fema.gov/library/view/Record.do?id=2434 	N/A

NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	<p>Identify need for additional staff.</p> <p>Identify training needs of existing staff.</p>	Application of current flood regulations is manageable under current staff levels. If there were ways to establish universal, electronic reporting or documentation



Topic	Considerations	Answer
		processes, it could be helpful (while modeling has improved, much of the reporting seems to have not kept up with technology)
Compliance	<p>When is the next Community Assistance visit anticipated?</p> <p>If unknown, discuss any need for CAV, CAC, or other compliance assistance.</p>	<p>Unknown. CAV's should be conducted less as an audit (though there are some auditing functions) and more as a way to provide tools to communities that may not be employing them and may not be aware of them.</p> <p>As development within the floodplain becomes less of an option, applications for development permits become less common. In some cases, lack of compliance may be the result of inactivity and unfamiliarity. CAV's should be conducted with the approach of trying to gain compliance, rather than searching for non-compliance.</p>
Regulation	<p>Are there potential ordinance changes to consider strengthening requirements?</p> <p>Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program?</p> <p>Could the community enhance its floodplain services?</p>	<p>The floodplain management ordinance, once adopted pursuant to the Biological Opinion, should offer improved guidance for development without substantial changes. Stable regulations will allow the City to expand its services to the community.</p> <p>Improvements in flood modeling technology has revealed that notions of mitigating flood attenuation capacity by "digging a bigger hole" do not always work. Regulations that emphasize this philosophy without providing other methods of discovery should be reexamined.</p>
Flood Risk Maps	<p>Are there flood prone areas that need new flood studies?</p> <p>What areas are highest priority and why?</p> <p>Does the community have new data that can be included in future flood map updates?</p>	<p>The community has questioned whether the current FIRM's accurately analyze the 100-Year Flood within the downtown core; the current FIRM's reflect flood areas that have not historically flooded or given indication of potential flooding.</p>



Topic	Considerations	Answer
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	If the Biological Opinion-compliant ordinance is adopted, the City expects to provide educational materials to elected officials and the development community.
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	The City is interested in participating, pending a CAV in September/October 2011.

F6-CITY OF LYNDEN National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community?	<ul style="list-style-type: none"> State NFIP Coordinator or FEMA NFIP Specialist 	20 policies in force
	What is the total premium and coverage?		\$5,941,900.00 insurance in force
			0 repetitive loss properties
	How many claims have been paid in the community?	<ul style="list-style-type: none"> FEMA NFIP or Insurance Specialist 	6 paid losses
	What is the total amount of paid claims?		\$54,898.81 total losses paid
	How many of the claims were for substantial damage?		0 sub. damage claims since 1978
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	3 to 4
	Describe any areas of flood	<ul style="list-style-type: none"> Community FPA & FEMA 	N/A



Topic	Considerations	Where to find Information	Answer
	risk with limited NFIP policy coverage	Insurance Specialist	
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	• Community FPA	Public Works Director
	Is floodplain management an auxiliary duty?		Yes
	Is there a Certified Floodplain Manager on Staff?		Yes
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		On a case by case basis
	What are the barriers to running an effective NFIP program in the community, if any?		None
Compliance History	Is the community in good standing with the NFIP?	• State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		9/21/2012 last CAV date
	Is a CAV or CAC scheduled or needed?		
Regulation	When did the community enter the NFIP?	• Community Status Book http://www.fema.gov/fema/csb.shtm	11/03/1982 regular entry
	What did the community's Flood Insurance Rate Maps (FIRMS) become effective?		11/03/1982
	Are the FIRMS digital or paper?	• Community FPA, State or FEMA NFIP Specialists	Digital
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	• Community FPA	Meets requirements



Topic	Considerations	Where to find Information	Answer
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none"> Community FPA 	Done on a case by case basis
	Does the community participate in CRS?	<ul style="list-style-type: none"> Community FPA, State, FEMA NFIP 	No
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none"> Flood Insurance Manual Community status book report for state WA (fema.gov) 	N/A
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none"> Community FPA, FEMA CRS Coordinator, ISO representative 	N/A
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none"> CRS manual http://www.fema.gov/library/viewRecord.do?id=2434 	N/A

NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	None
Compliance	When is the next Community Assistance visit anticipated? If unknown, discuss any need for CAV, CAC, or other compliance assistance.	Not needed
Regulation	Are there potential ordinance changes to consider strengthening requirements? Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program? Could the community enhance its floodplain services?	N/A No N/A
Flood Risk Maps	Are there flood prone areas that need new flood studies? What areas are highest priority and why?	No None Just the information the City



Topic	Considerations	Answer
	Does the community have new data that can be included in future flood map updates?	receives from Whatcom County River and Flood
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	N/A
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	Unknown

F7-CITY OF NOOKSACK National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community? What is the total premium and coverage?	<ul style="list-style-type: none"> State NFIP Coordinator or FEMA NFIP Specialist 	39 policies in force \$12,061,600.00 insurance in force 0 repetitive losses
	How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	<ul style="list-style-type: none"> FEMA NFIP or Insurance Specialist 	6 paid loss \$53,667.65 total losses paid 0 sub. damage claims since 1978
	Number of Structures exposed to flood risk within the community	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	174 (including outbuildings) in FEMA flood zone AE areas
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none"> Community FPA & FEMA Insurance Specialist 	None



Topic	Considerations	Where to find Information	Answer
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	<ul style="list-style-type: none"> Community FPA 	No
	Is floodplain management an auxiliary duty?		Yes, one of duties of the Public Works Director
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		Services are as listed with the exception of engineering capability
	What are the barriers to running an effective NFIP program in the community, if any?		None
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		04/24/2008 last CAV date
	Is a CAV or CAC scheduled or needed?		No
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/csb.shtm 	09/02/1982 regular entry
	What did the community's Flood Insurance Rate Maps (FIRMS) become effective?		01/16/2004, revision is currently underway.
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Both
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	<ul style="list-style-type: none"> Community FPA 	The current City of Nooksack ordinance meets all requirements.



Topic	Considerations	Where to find Information	Answer
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none">Community FPA	Builders or individuals apply for a Floodplain Development Permit at time of Building Permit application for individual structures. Permit application attached.
	Does the community participate in CRS?	<ul style="list-style-type: none">Community FPA, Sate, FEMA NFIP	No
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none">Flood Insurance Manual Community status book report for state WA (fema.gov)	
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none">Community FPA, FEMA CRS Coordinator, ISO representative	
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none">CRS manual http://www.fema.gov/library/viewRecord.do?id=2434	



NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff. Identify training needs of existing staff.	As small as the City of Nooksack is, staffing is adequate.
Compliance	When is the next Community Assistance visit anticipated? If unknown, discuss any need for CAV, CAC, or other compliance assistance.	2013, if a five year visit is standard.
Regulation	Are there potential ordinance changes to consider strengthening requirements? Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program? Could the community enhance its floodplain services?	There are no ordinance changes being planned, a change was made in 2010 to correct an omission from previous City Council action. The City is always looking for ways to improve the process involved.
Flood Risk Maps	Are there flood prone areas that need new flood studies? What areas are highest priority and why? Does the community have new data that can be included in future flood map updates?	The City of Nooksack recently completed a flood study that is submitted to FEMA at this time.
Community Outreach	Consider outreach and education to provide in the community. Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics. Consider a variety of audiences, such as elected officials or builders.	The City of Nooksack feels that additional outreach could be made, but local individuals, officials, and builders seem to understand the process if they are involved in any way.
Community Rating System (CRS)	Does the community want to participate in the CRS program? Does the community want to improve its current CRS class ranking? Identify activities the community is or will be pursuing to gain CRS points.	The City of Nooksack would be interested in participation in the CRS program. Yes Unknown



F8-CITY OF SUMAS National Flood Insurance Program Participation

Topic	Considerations	Where to find Information	Answer
Insurance Summary	How many NFIP policies are in the community?	<ul style="list-style-type: none"> State NFIP Coordinator or FEMA NFIP Specialist 	167 policies in force
	What is the total premium and coverage?		\$40,899,700.00 insurance in force
			8 repetitive loss properties. The Repetitive Loss Structures in Sumas are residential. This is based off the 2018 Washington State Repetitive Loss Record from the State Mitigation Strategist at the Washington Emergency Management Division. There may currently be different Repetitive Loss structure types located in Sumas, but the 2018 Repetitive Loss Record is the best available data.
	How many claims have been paid in the community?	<ul style="list-style-type: none"> FEMA NFIP or Insurance Specialist 	82 paid losses
	What is the total amount of paid claims?		\$1,043,047.34 total losses paid
	How many of the claims were for substantial damage?		5 sub. damage claims since 1978
	Number of Structures exposed to flood risk within	<ul style="list-style-type: none"> Community Floodplain Administrator (FPA) 	429



Topic	Considerations	Where to find Information	Answer
	the community		
	Describe any areas of flood risk with limited NFIP policy coverage	<ul style="list-style-type: none"> Community FPA & FEMA Insurance Specialist 	N/A
Staff Resources	Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	<ul style="list-style-type: none"> Community FPA 	Yes, Rod Fadden
	Is floodplain management an auxiliary duty?		Yes
	Is there a Certified Floodplain Manager on Staff?		No
	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		I do permit reviews, Outreach CCR renewals, Inspections
	What are the barriers to running an effective NFIP program in the community, if any?		N/A
Compliance History	Is the community in good standing with the NFIP?	<ul style="list-style-type: none"> State NFIP Coordinator, FEMA NFIP Specialist, community records 	Yes, we get the 15% discount
	Are there any outstanding compliance issues (i.e., current violations)?		No
	When was the most recent Community Assistance Visit (VAC) or Community Assistance Contact (CAC)?		12/11/2014 last CAV date
	Is a CAV or CAC scheduled or needed?		No
Regulation	When did the community enter the NFIP?	<ul style="list-style-type: none"> Community Status Book http://www.fema.gov/fema/csb.shtm 	05/15/1985 regular entry
	What did the community's Flood Insurance Rate Maps (FIRMS) become effective?		01/16/2004
	Are the FIRMS digital or paper?	<ul style="list-style-type: none"> Community FPA, State or FEMA NFIP Specialists 	Digital
	Does the Floodplain Ordinance meet or exceed FEMA or State minimum	<ul style="list-style-type: none"> Community FPA 	Yes

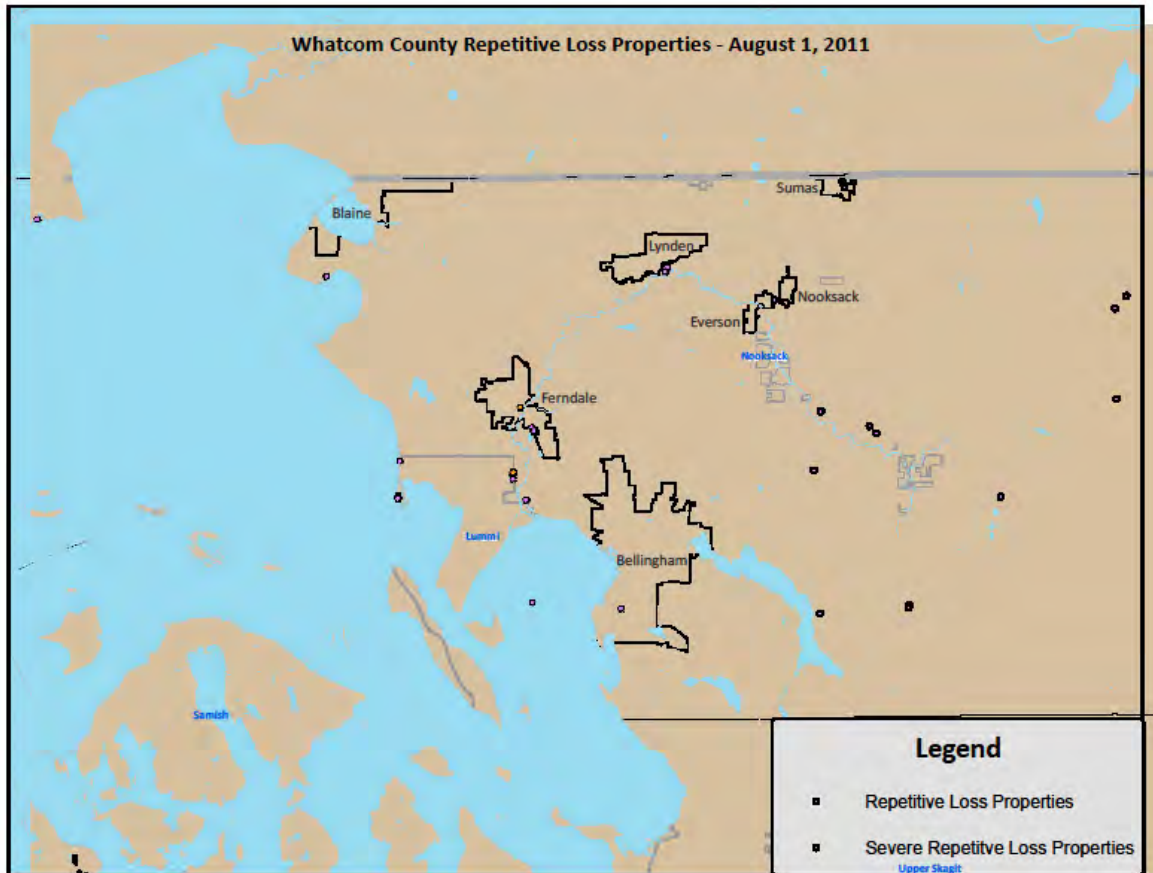


Topic	Considerations	Where to find Information	Answer
	requirements? If so, in what ways?		
	Provide an explanation of the permitting process and include a copy of floodplain permit.	<ul style="list-style-type: none">Community FPA	The floodplain permit is issued at the time the building permit is.
	Does the community participate in CRS?	<ul style="list-style-type: none">Community FPA, Sate, FEMA NFIP	Yes
	What is the community's CRS Class Ranking?	<ul style="list-style-type: none">Flood Insurance Manual Community status book report for state WA (fema.gov)	7
	What categories and activities provide CRS points and how can the class be improved?	<ul style="list-style-type: none">Community FPA, FEMA CRS Coordinator, ISO representative	310-350, 410-450, 510-540, 610-
	Does the plan include CRS planning requirements?	<ul style="list-style-type: none">CRS manual http://www.fema.gov/library/viewRecord.do?id=2434	



NFIP CONTINUED COMPLIANCE ACTIONS

Topic	Considerations	Answer
Staff Resources	Identify need for additional staff.	Ok
	Identify training needs of existing staff.	
Compliance	When is the next Community Assistance visit anticipated?	N/A
	If unknown, discuss any need for CAV, CAC, or other compliance assistance.	
Regulation	Are there potential ordinance changes to consider strengthening requirements?	No
		No
	Are there potential improvements to permitting process or other administrative aspects of the community's NFIP program?	No
	Could the community enhance its floodplain services?	
Flood Risk Maps	Are there flood prone areas that need new flood studies?	No
	What areas are highest priority and why?	N/A
	Does the community have new data that can be included in future flood map updates?	Yes
Community Outreach	Consider outreach and education to provide in the community.	We do newsletters
	Outreach can be targeted to increase NFIP policies, promote NFIP services, or increase knowledge of local flood risk, among other topics.	
	Consider a variety of audiences, such as elected officials or builders.	
Community Rating System (CRS)	Does the community want to participate in the CRS program?	Already in the program
	Does the community want to improve its current CRS class ranking?	
	Identify activities the community is or will be pursuing to gain CRS points.	



The repetitive loss properties in the 2011 Repetitive Loss Map above are up to date. Should there be changes to the properties displayed, or additional properties are added to the repetitive loss property category, this map will be updated to reflect those changes.



APPENDIX E: WHATCOM COUNTY MITIGATION IDEAS

(Reference: FEMA's Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards (January 2013))

The purpose of this document is to provide a resource that communities can use to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters. The focus of this document is mitigation, which is action taken to reduce or eliminate long-term risk to hazards. Mitigation is different from preparedness, which is action taken to improve emergency response or operational preparedness.

This document is intended to be a starting point for gathering ideas and should not be used as the only source for identifying actions. Communities should seek innovative and different ideas for reducing risk that meet their unique needs. The actions listed are not necessarily eligible for Federal assistance programs. Users should review specific program guidance and contact their State Hazard Mitigation Officer (SHMO) or regional FEMA office for more information.

Hazard Descriptions

Risk Codes: D—Drought; EQ—Earthquake; VE—Volcanic Eruption; ER—Erosion; ET--Extreme temperatures; F—Flood; HA—Hail; LS—Landslide; L—Lightning; SW--Severe wind; WW--Severe winter weather; SU—Subsidence; T—Tornado; Tsunami—TSU; WF—Wildfire; MU--Multiple Hazards

Drought (D)

A drought is a period of unusually constant dry weather that persists long enough to cause deficiencies in water supply (surface or underground). Droughts are slow onset hazards, but, over time, they can severely affect crops, municipal water supplies, recreational resources, and wildlife. If drought conditions extend over a number of years, the direct and indirect economic impacts can be significant. High temperatures, high winds, and low humidity can worsen drought conditions and also make areas more susceptible to wildfire. In addition, human actions and demands for water resources can accelerate drought-related impacts.

Earthquake (EQ)

An earthquake is a sudden release of energy that creates a movement in the earth's crust. Most earthquake-related property damage and deaths are caused by the failure and collapse of structures due to ground shaking. The level of damage depends upon the extent and duration of the shaking. Other damaging earthquake effects include landslides, the down-slope movement of soil and rock (in mountain regions and along hillsides), and liquefaction.

Volcanic Eruption

A volcano is a vent in the earth's crust through which magma (molten rock), rock fragments, gases, and ashes are ejected from the earth's interior. A volcanic mountain is created over time by the accumulation of these erupted products on the on the earth's surface.

Erosion (ER)

Erosion wearing away of land, such as loss of riverbank, beach, shoreline, or dune material. It is measured as the rate of change in the position or displacement of a riverbank or shoreline over a period of time. Short-term erosion typically results from periodic natural events, such as flooding, hurricanes, storm surge, and windstorms, but may be intensified by human activities. Long-term erosion is a result of multi-



year impacts such as repetitive flooding, wave action, sea level rise, sediment loss, subsidence, and climate change. Death and injury are not typically associated with erosion; however, it can destroy buildings and infrastructure.

Extreme Temperatures (ET)

Extreme heat and extreme cold constitute different conditions in different parts of the country. Extreme cold can range from near freezing temperatures in the southern United States to temperatures well below zero in the northern states. Similarly, extreme heat is typically recognized as the condition where temperatures consistently stay ten degrees or more above a region's average high temperature for an extended period. Fatalities can result from extreme temperatures, as they can push the human body beyond its limits (hyperthermia and hypothermia).

Flood (F)

A flood is the partial or complete inundation of normally dry land. The various types of flooding include riverine flooding, coastal flooding, and shallow flooding. Common impacts of flooding include damage to personal property, buildings, and infrastructure; bridge and road closures; service disruptions; and injuries or even fatalities.

Hail (HA)are a potentially damaging outgrowth

Hailstorms are a potentially damaging outgrowth of severe thunderstorms. Hailstorms frequently accompany thunderstorms, so their locations and spatial extents overlap. Hail can cause substantial damage to vehicles, roofs, landscaping, and other areas of the built environment. U.S. agriculture is typically the area most affected by hail storms, which cause severe crop damage even during minor events.

Landslide (LS)

The movement of a mass of rock, debris, or earth down a slope by force of gravity is considered a landslide. Landslides occur when the slope or soil stability changes from stable to unstable, which may be caused by earthquakes, storms, volcanic eruptions, erosion, fire, or additional human-induced activities. Slopes greater than 10 degrees are more likely to slide, as are slopes where the height from the top of the slope to its toe is greater than 40 feet. Slopes are also more likely to fail if vegetative cover is low and/or soil water content is high. Potential impacts include environmental disturbance, property and infrastructure damage, and injuries or fatalities.

Lightning (L)

Lightning is a discharge of electrical energy that results from the buildup of positive and negative charges in a thunderstorm, which creates a "bolt" when the buildup of charges becomes strong enough. Lightning can strike communications equipment (e.g., radio or cell towers, antennae, satellite dishes, etc.) and hamper communication and emergency response. Lightning strikes can also cause significant damage to buildings, critical facilities, and infrastructure, largely by igniting a fire. Lightning can also ignite a wildfire.

Severe Wind (SW)

Severe wind can occur alone, such as during straightline wind events, or it can accompany other natural hazards, including hurricanes and severe thunderstorms. Severe wind poses a threat to lives, property, and vital utilities primarily due to the effects of flying debris or downed trees and power lines. Severe wind will typically cause the greatest damage to structures of light construction, particularly manufactured homes.



Severe Winter Weather (WW)

Severe winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Severe winter weather can down trees, cause widespread power outages, damage property, and cause fatalities and injuries.

Subsidence (SU)

Subsidence is the gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials. The level of subsidence ranges from a broad lowering to collapse of land surface. Most causes of subsidence are human-induced, such as groundwater pumpage, aquifer system compaction, drainage of organic soils, underground mining, hydrocompaction, natural compaction, sinkholes, and thawing permafrost. Areas located above or adjacent to karsts topography have a greater risk of experiencing subsidence. Sudden collapses of surface areas can damage and destroy buildings and infrastructure.

Tornado (T)

A tornado is a violently rotating column of air that has contact with the ground and is often visible as a funnel cloud. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size, and duration of the storm. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings and particularly manufactured homes. Tornadoes are more likely to occur during the months of March through May and tend to form in the late afternoon and early evening.

Tsunami (TSU)

A tsunami is a series of great waves that are created by undersea disturbances, such as earthquakes or volcanic eruptions. As opposed to typical waves that crash at the shoreline, tsunamis bring a continuously flowing "wall of water" that has the potential to cause devastating damage in coastal areas immediately along the shore. Areas at greatest risk are less than 50 feet above sea level and within 1 mile of the shoreline. Most deaths that occur during a tsunami result from drowning. Associated risks include flooding, polluted water supplies, and damaged gas lines.

Wildfire (WF)

A wildfire is any outdoor fire that is not controlled, supervised, or arranged. Wildfire probability depends on local weather conditions; outdoor activities such as camping, debris burning, and construction; and the degree of public cooperation with fire prevention measures. Wildfires can result in widespread damage to property and loss of life.

The suggested mitigation actions are summarized into five types: (1) Public Awareness; (2) Local Planning and Regulations; (3) Structural and Infrastructure Projects; (4) Natural Systems Protection; and, (5) Education and Awareness Programs.

PUBLIC AWARENESS



- Emergency preparedness education programs for schools.
- Drills, exercises in homes, workplaces, classrooms, etc.
- Public service announcements.
- Hazard "safety fairs."
- Hazard conferences, seminars.
- Hazard awareness weeks.
- Preparedness handbooks, brochures.
- Distribution of severe weather guides, homeowner's retrofit guide, etc.
- Regular newspaper articles.
- Direct mailings.
- Utility bill inserts.
- Annual correspondence with residents reminding them of the need to be hazard prepared.

LOCAL PLANNING AND REGULATIONS

D-1 Assess Vulnerability to Drought Risk

To better understand and assess local vulnerability to drought, consider actions such as:

- Gathering and analyzing water and climate data to gain a better understanding of local climate and drought history.
- Identifying factors that affect the severity of a drought.
- Identifying available water supplies.
- Determining how the community and its water sources have been impacted by droughts in the past.

D-2 Monitor Drought Conditions

Monitoring drought conditions can provide early warning for policymakers and planners to make decisions through actions including:

- Identifying local drought indicators, such as precipitation, temperature, surface water levels, soil moisture, etc.
- Establishing a regular schedule to monitor and report conditions on at least a monthly basis.

D-3 Monitor Water Supply

Monitoring the water supply and its functions can save water in the long run through actions such as:

- Regularly checking for leaks to minimize water supply losses.
- Improving water supply monitoring.

D-4 Plan for Drought

Plan for future drought events in your area through actions such as:

- Developing a drought emergency plan.
- Developing criteria or triggers for drought-related actions.



- Developing a drought communication plan and early warning system to facilitate timely communication of relevant information to officials, decision makers, emergency managers, and the general public.
- Developing agreements for secondary water sources that may be used during drought conditions.
- Establishing an irrigation time/scheduling program or process so that all agricultural land gets the required amount of water. Through incremental timing, each area is irrigated at different times so that all water is not consumed at the same time. Spacing usage may also help with recharge of groundwater.

D-5 Require Water Conservation During Drought Conditions

Require mandatory water conservation measures during drought emergencies, including:

- Developing an ordinance to restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, filling swimming pools, etc.
- Adopting ordinances to prioritize or control water use, particularly for emergency situations like firefighting.

D-6 Prevent Overgrazing

Prevent overgrazing, which has been linked to drought vulnerability, through actions such as:

- Establishing a grazing policy or permitting program to prevent overgrazing.
- Reducing the number of animals and improving range management.

EQ-1 Adopt and Enforce Building Codes

Building codes reduce earthquake damage to structures. Consider actions such as:

- Adopting and enforcing updated building code provisions to reduce earthquake damage risk.
- Adopting the International Building Code (IBC) and International Residential Code (IRC).

EQ-2 Incorporate Earthquake Mitigation into Local Planning

Earthquake risk can be reduced through local planning, codes, and ordinances, including:

- Creating a seismic safety committee to provide policy recommendations, evaluate and recommend changes in seismic safety standards, and give an annual assessment of local and statewide implementation of seismic safety improvements.
- Developing and distributing guidelines or passing ordinances that require developers and building owners to locate lifelines, buildings, critical facilities, and hazardous materials out of areas subject to significant seismic hazards.
- Incorporating structural and non-structural seismic strengthening actions into ongoing building plans and activities in the capital improvement plan to ensure that facilities remain operational for years to come.
- Supporting financial incentives, such as low interest loans or tax breaks, for home and business owners who seismically retrofit their structures.

EQ-3 Map and Assess Community Vulnerability to Seismic Hazards



To better understand and assess local vulnerability to earthquakes, consider actions such as:

- Developing an inventory of public and commercial buildings that may be particularly vulnerable to earthquake damage, including pre-1940s homes and homes with cripple wall foundations.
- Collecting geologic information on seismic sources, soil conditions, and related potential hazards.
- Creating an earthquake scenario to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities within a community to develop earthquake mitigation priorities.
- Using Hazus to quantitatively estimate potential losses from an earthquake.
- Maintaining a database to track community vulnerability to earthquake risk.
- Using GIS to map hazard areas, at-risk structures, and associated hazards (e.g., liquefaction and landslides) to assess high-risk areas.

EQ-4 Conduct Inspections of Building Safety

Inspections can be used to assess earthquake risk, such as:

- Establishing a school survey procedure and guidance document to inventory structural and non-structural hazards in and around school buildings.
- Using rapid visual screening to quickly inspect a building and identify disaster damage or potential seismic structural and non-structural weaknesses to prioritize retrofit efforts, inventory high-risk structures and critical facilities, or assess post-disaster risk to determine if buildings are safe to re-occupy.
- Consulting industry standard publications such as American Society of Civil Engineers (ASCE) 31 - Seismic Evaluation of Existing Buildings, ASCE 41 - Seismic Rehabilitation of Existing Buildings, and Applied Technology Council (ATC) 20 - Procedures for Post-earthquake Safety Evaluation of Buildings.

ER-1 Map and Assess Vulnerability to Erosion

Erosion risk can be better assessed and monitored with mapping techniques, including the following:

- Using GIS to identify and map erosion hazard areas.
- Developing and maintaining a database to track community vulnerability to erosion.
- Using GIS to identify concentrations of at-risk structures.
- Improving mapping of hazard areas to educate residents about unexpected risks.

ER-2 Manage Development in Erosion Hazard Areas

Erosion damage can be mitigated by regulating how development occurs in hazard areas, such as the following:

- Adopting sediment and erosion control regulations.
- Adopting zoning and erosion overlay districts.
- Developing an erosion protection program for high hazard areas.
- Employing erosion control easements.
- Prohibiting development in high-hazard areas.
- Developing and implementing an erosion management plan.
- Requiring mandatory erosion surcharges on homes.
- Locating utilities and critical facilities outside of areas susceptible to erosion to decrease the risk



of service disruption.

ER-3 Promote or Require Site and Building Design Standards to Minimize Erosion Risk

Development can be designed to minimize damage due to erosion using the following techniques:

- Constructing open foundation systems on buildings to minimize scour.
- Constructing deep foundations in erosion hazard areas.
- Clustering buildings during building and site design.
- Designing and orienting infrastructure to deter erosion and accretion.

ET-1 Reduce Urban Heat Island Effect

As urban areas develop and buildings and roads replace open land and vegetation, urban regions become warmer than their rural surroundings, forming an “island” of heat. Several methods for reducing heat island effects include:

- Increasing tree plantings around buildings to shade parking lots and along public rights-of-way.
- Encouraging installation of green roofs, which provide shade and remove heat from the roof surface and surrounding air.
- Using cool roofing products that reflect sunlight and heat away from a building.

F-1 Incorporate Flood Mitigation in Local Planning

Comprehensive planning and floodplain management can mitigate flooding by influencing development. Strategies include:

- Determining and enforcing acceptable land uses to alleviate the risk of damage by limiting exposure in flood hazard areas. Floodplain and coastal zone management can be included in comprehensive planning.
- Developing a floodplain management plan and updating it regularly.
- Mitigating hazards during infrastructure planning. For example, decisions to extend roads or utilities to an area may increase exposure to flood hazards.
- Adopting a post-disaster recovery ordinance based on a plan to regulate repair activity, generally depending on property location.
- Passing and enforcing an ordinance that regulates dumping in streams and ditches.
- Establishing a “green infrastructure” program to link, manage, and expand existing parks, preserves, greenways, etc.
- Obtaining easements for planned and regulated public use of privately-owned land for temporary water retention and drainage.

F-2 Form Partnerships to Support Floodplain Management

Partnerships between local, state, and regional entities help expand resources and improve coordination. Consider the following actions:

- Developing a storm water committee that meets regularly to discuss issues and recommend projects.
- Forming a regional watershed council to help bring together resources for comprehensive analysis, planning, decision-making, and cooperation.



- Establishing watershed-based planning initiatives to address the flood hazard with neighboring jurisdictions.
- Forming a citizen plan implementation steering committee to monitor progress on local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government.

F-3 Limit or Restrict Development in Floodplain Areas

Flooding can be mitigated by limiting or restricting how development occurs in floodplain areas through actions such as:

- Prohibiting or limiting floodplain development through regulatory and/or incentive-based measures.
- Limiting the density of developments in the floodplain.
- Requiring that floodplains be kept as open space.
- Limiting the percentage of allowable impervious surface within developed parcels.
- Developing a stream buffer ordinance to protect water resources and limit flood impacts.
- Prohibiting any fill in floodplain areas.

F-4 Adopt and Enforce Building Codes and Development Standards

The use of building codes and development standards can ensure structures are able to withstand flooding. Potential actions include:

- Adopting the International Building Code (IBC) and International Residential Code (IRC).
- Adopting ASCE 24-05 Flood Resistant Design and Construction. ASCE 24 is a referenced standard in the IBC that specifies minimum requirements and expected performance for the design and construction of buildings and structures in the flood hazard areas to make them more resistant to flood loads and flood damage.
- Adding or increasing “freeboard” requirements (feet above base flood elevation) in the flood damage ordinance.
- Prohibiting all first floor enclosures below base flood elevation for all structures in flood hazard areas.
- Considering orientation of new development during design (e.g., subdivisions, buildings, infrastructure, etc.).
- Setting the design flood elevation at or above the historical high water mark if it is above the mapped base flood elevation.
- Using subdivision design standards to require elevation data collection during platting and to have buildable space on lots above the base flood elevation.
- Requiring standard tie-downs of propane tanks.

F-5 Improve Storm Water Management Planning

Rainwater and snowmelt can cause flooding and erosion in developed areas. Storm Water management practices to prevent this include:

- Completing a storm water drainage study for known problem areas.
- Preparing and adopting a storm water drainage plan and ordinance.
- Preparing and adopting a community-wide storm water management master plan.
- Regulating development in upland areas in order to reduce storm water run-off through a storm



water ordinance.

- Linking flood hazard mitigation objectives with EPA Storm water Phase II initiatives.
- Developing engineering guidelines for drainage from new development.
- Requiring a drainage study with new development.
- Encouraging the use of Low Impact Development techniques

F-6 Adopt Policies to Reduce Storm Water Runoff

In addition to storm water management, techniques to reduce rain runoff can prevent flooding and erosion, such as:

- Designing a “natural runoff” or “zero discharge” policy for storm water in subdivision design.
- Requiring more trees be preserved and planted in landscape designs to reduce the amount of storm water runoff.
- Requiring developers to plan for on-site sediment retention.
- Requiring developers to construct on-site retention basins for excessive storm water and as a firefighting water source.
- Encouraging the use of porous pavement, vegetative buffers, and islands in large parking areas.
- Conforming pavement to land contours so as not to provide easier avenues for storm water.
- Encouraging the use of permeable driveways and surfaces to reduce runoff and increase groundwater recharge.
- Adopting erosion and sedimentation control regulations for construction and farming.

F-7 Improve Flood Risk Assessment

Heighten awareness of flood risk with the following:

- Incorporating the procedures for tracking high water marks following a flood into emergency response plans.
- Conducting cumulative impact analyses for multiple development projects within the same watershed.
- Conducting a verification study of FEMA’s repetitive loss inventory and developing an associated tracking database.
- Regularly calculating and documenting the amount of flood-prone property preserved as open space.
- Requiring a thorough watershed analysis for all proposed dam or reservoir projects.
- Developing a dam failure study and emergency action plan.
- Using GIS to map areas that are at risk of flooding.
- Obtaining depth grid data and using it to illustrate flood risk to citizens.
- Incorporating digital floodplain and topographic data into GIS systems, in conjunction with Hazus, to assess risk.
- Developing and maintaining a database to track community exposure to flood risk.
- Revising and updating regulatory floodplain maps.

F-8 Join or Improve Compliance with NFIP

The National Flood Insurance Program (NFIP) enables property owners in participating communities to purchase insurance protection against flood losses. Actions to achieve eligibility and maintain compliance include:



- Participating in NFIP.
- Adopting ordinances that meet minimum Federal and state requirements to comply with NFIP.
- Conducting NFIP community workshops to provide information and incentives for property owners to acquire flood insurance.
- Designating a local floodplain manager and/or CRS coordinator who achieves CFM certification.
- Completing and maintaining FEMA elevation certificates for pre-FIRM and/or post-FIRM buildings.
- Requiring and maintaining FEMA elevation certificates for all new and improved buildings located in floodplains.

F-9 Manage the Floodplain Beyond Minimum Requirements

In addition to participation in NFIP, implementing good floodplain management techniques that exceed minimum requirements can help minimize flood losses. Examples include:

- Incorporating the ASFPM's "No Adverse Impact" policy into local floodplain management programs.
- Revising the floodplain ordinance to incorporate cumulative substantial damage requirements.
- Adopting a "no-rise" in base flood elevation clause for the flood damage prevention ordinance.
- Extending the freeboard requirement past the mapped floodplain to include an equivalent land elevation.
- Including requirements in the local floodplain ordinance for homeowners to sign non-conversion agreements for areas below base flood elevation.
- Establishing and publicizing a user-friendly, publicly-accessible repository for inquirers to obtain Flood Insurance Rate Maps.
- Developing an educational flyer targeting NFIP policyholders on increased cost of compliance during post-flood damage assessments.
- Annually notifying the owners of repetitive loss properties of Flood Mitigation Assistance funding.
- Offering incentives for building above the required freeboard minimum (code plus).

F-10 Participate in the CRS

The Community Rating System (CRS) rewards communities that exceed the minimum NFIP requirements. Depending upon the level of participation, flood insurance premium rates are discounted for policyholders. Potential activities that are eligible to receive credit include:

- Advising the public about the local flood hazard, flood insurance, and flood protection measures.
- Enacting and enforcing regulations that exceed NFIP minimum standards so that more flood protection is provided for new development.
- Implementing damage reduction measures for existing buildings such as acquisition, relocation, retrofitting, and maintenance of drainage ways and retention basins.
- Taking action to minimize the effects of flooding on people, property, and building contents through measures including flood warning, emergency response, and evacuation planning.

F-11 Establish Local Funding Mechanisms for Flood Mitigation

Potential methods to develop local funding sources for flood mitigation include:



- Using taxes to support a regulatory system.
- Using impact fees to help fund public projects to mitigate impacts of land development (e.g., increased runoff).
- Levying taxes to fix maintenance of drainage systems and capital improvements.

LS-1 Map and Assess Vulnerability to Landslides

Improve data and mapping on specific landslide risks in the community by:

- Studying areas where riparian landslides may occur.
- Completing an inventory of locations where critical facilities, other buildings, and infrastructure are vulnerable to landslides.
- Using GIS to identify and map landslide hazard areas.
- Developing and maintaining a database to track community vulnerability to landslides.
- Assessing vegetation in wildfire-prone areas to prevent landslides after fires (e.g., encourage plants with strong root systems).

LS-2 Manage Development in Landslide Hazard Areas

Landslide risk can be mitigated by regulating development in landslide hazard areas through actions such as:

- Creating a plan to implement reinforcement measures in high-risk areas.
- Defining steep slope/high-risk areas in land use and comprehensive plans and creating guidelines or restricting new development in those areas.
- Creating or increasing setback limits on parcels near high-risk areas.
- Locating utilities outside of landslide areas to decrease the risk of service disruption.
- Restricting or limiting industrial activity that would strip slopes of essential top soil.
- Incorporating economic development activity restrictions in high-risk areas.

SLR-1 Map and Assess Vulnerability to Sea Level Rise

To better understand and assess local vulnerability to sea level rise, consider actions such as:

- Modeling various “what-if” scenarios to estimate potential vulnerabilities in order to develop sea level rise mitigation priorities.
- Using GIS to map hazard areas, at-risk structures, and associated hazards (e.g., flood and storm surge) to assess high-risk areas.
- Developing an inventory of public buildings and infrastructure that may be particularly vulnerable to sea level rise.
- Adding future conditions hydrology and areas that may be inundated by sea level rise to Digital Flood Insurance Rate Maps (DFIRM).

SLR-2 Manage Development in High-Risk Areas

Local governments can mitigate future losses resulting from sea level rise by regulating development in potential hazard areas through land use planning, including:

- Using zoning, subdivision regulations, and/or a special sea level rise overlay district to designate high-risk areas and specify the conditions for the use and development of specific areas.



- Promoting conservation and management of open space, wetlands, and/or sea level rise boundary zones to separate developed areas from high-hazard areas.
- Prohibiting the redevelopment of areas destroyed by storms or chronic erosion in order to prevent future losses.
- Encouraging compact community design in low-risk areas.
- Establishing setbacks in high-risk areas that account for potential sea level rise.

SRL-3 Prevent Infrastructure Expansion in High-Risk Areas

Future development can be protected from damage resulting from sea level rise through the following:

- Setting guidelines for annexation and service extensions in high-risk areas.
- Locating utilities and critical facilities outside of areas susceptible to sea level rise to decrease the risk of service disruption.
- Requiring all critical facilities to be built 1 foot above the 500-year flood elevation (considering wave action) or the predicted sea level rise level, whichever is higher.

SW-1 Adopt and Enforce Building Codes

Adopt regulations governing residential construction to prevent wind damage. Examples of appropriate regulations are:

- Adopting the International Building Code (IBC) and International Residential Code (IRC).
- Adopting standards from International Code Council (ICC)-600 Standard for Residential Construction in High-Wind Regions.
- Reviewing building codes and structural policies to ensure they are adequate to protect older structures from wind damage.
- Requiring or encouraging wind engineering measures and construction techniques that may include structural bracing, straps and clips, anchor bolts, laminated or impact-resistant glass, reinforced pedestrian and garage doors, window shutters, waterproof adhesive sealing strips, or interlocking roof shingles.
- Requiring tie-downs with anchors and ground anchors appropriate for the soil type for manufactured homes.
- Prohibiting the use of carports and open coverings attached to manufactured homes.
- Requiring the use of special interlocking shingles designed to interlock and resist uplift forces in extreme wind conditions to reduce damage to a roof or other structures.
- Improving nailing patterns.
- Requiring building foundation design, braced elevated platforms, and protections against the lateral forces of winds and waves.
- Requiring new masonry chimneys greater than 6 feet above a roof to have continuous reinforced steel bracing.
- Requiring structures on temporary foundations to be securely anchored to permanent foundations.

SW-2 Promote or Require Site and Building Design Standards to Minimize Wind Damage

Damage associated with severe wind events can be reduced or prevented if considered during building and site design. Examples include the following:



- Using natural environmental features as wind buffers in site design.
- Incorporating passive ventilation in the building design.
- Incorporating passive ventilation in the site design. Passive ventilation systems use a series of vents in exterior walls or at exterior windows to allow outdoor air to enter the home in a controlled way.
- Encouraging architectural designs that limit potential for wind-borne debris.
- Improving architectural design standards for optimal wind conveyance.
- Encouraging wind-resistant roof shapes (e.g., hip over gable).

SW-3 Assess Vulnerability to Severe Wind

In order to better understand and assess local vulnerability to severe wind, consider actions such as:

- Developing and maintaining a database to track community vulnerability to severe wind.
- Using GIS to map areas that are at risk to the wind hazard associated with different hurricane conditions (e.g., Category 1, 2, 3, etc.) and to identify concentrations of at-risk structures.
- Creating a severe wind scenario to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities within a community to develop severe wind mitigation priorities.
- Using Hazus to quantitatively estimate potential losses from hurricane wind.

SW-4 Protect Power Lines and Infrastructure

The regular maintenance and upkeep of utilities can help prevent wind damage. Possible strategies are:

- Establishing standards for all utilities regarding tree pruning around lines.
- Incorporating inspection and management of hazardous trees into the drainage system maintenance process.
- Preemptively testing power line holes to determine if they are rotting.
- Inspecting utility poles to ensure they meet specifications and are wind resistant.
- Burying power lines to provide uninterrupted power after severe winds, considering both maintenance and repair issues.
- Upgrading overhead utility lines (e.g., adjust utility pole sizes, utility pole span widths, and/or line strength).
- Avoiding use of aerial extensions to water, sewer, and gas lines.
- Using designed-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
- Installing redundancies and loopfeeds.

WW-1 Adopt and Enforce Building Codes

Buildings and infrastructure can be protected from the impacts of winter storms with the following regulations:

- Adopting the International Building Code (IBC) and International Residential Code (IRC).
- Ensuring the development and enforcement of building codes for roof snow loads.
- Discouraging flat roofs in areas that experience heavy snows.

SS-1 Adopt Building Codes and Development Standards

Building codes and development standards can be established to mitigate storm surge damage. Possible



regulations include:

- Adopting the International Building Code (IBC) and International Residential Code (IRC).
- Adopting ASCE-24-05 Flood Resistant Design and Construction. ASCE 24, created by the American Society of Civil Engineers, is a referenced standard in the IBC that specifies minimum requirements and expected performance for the design and construction of buildings and structures in flood hazard areas to make them more resistant to flood loads and flood damage.
- Establishing design standards for buildings located in areas susceptible to storm surge.
- Implementing V-zone construction requirements for new development located in coastal A-zones.
- Adopting building requirements for higher elevation in inundation zones.
- Requiring open foundations (e.g., piles or piers) in coastal areas.
- Requiring deep foundations in order to avoid erosion and scour.

SS-2 Improve Land Use Planning and Regulations

Land uses should be planned and regulated to minimize the impact of storm surge. Possible measures to implement include:

- Developing and maintaining a beach management plan.
- Adopting shoreline setback regulations and establishing coastal setback lines.
- Adopting coastal zone management regulations.
- Eliminating all obstructions in areas along the coast subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves (also known as the V-zone).
- Planning for future storm surge heights due to sea level rise.
- Limiting or prohibiting development in areas along the coast subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves (referred to as the V-zone on Flood Insurance Rate Maps).
- Adopting coastal A-zones, areas of special flood hazard that extend inland and are subject to breaking waves between 1.5 and 3 feet, and ensuring that they are mapped accurately.
- Adopting and enforcing coastal A-zones in A-zones.

SS-3 Minimize Risk to New Facilities and Infrastructure

Infrastructure and critical facilities can be protected from storm surge damage through the following:

- Locating future critical facilities outside of areas susceptible to storm surge.
- Requiring that all critical facilities meet requirements of Executive Order 11988 and be built 1 foot above the 500-year flood elevation (considering wave action).

SS-4 Map and Assess Vulnerability to Storm Surge

Storm surge risk can be better assessed and monitored with mapping techniques, including the following:

- Using GIS to map areas that are at risk to inundation by storm surge.
- Developing and maintaining a database to track community vulnerability to storm surge.

SU-1 Map and Assess Vulnerability to Subsidence

Some areas with subsidence risk may not be fully identified in your community. Consider actions such as:



- Using GIS to map areas that are susceptible to subsidence.
- Identifying and mapping old mining areas or geologically unstable terrain so that development can be prevented or eliminated.
- Using ground-penetrating radar to detect lava tubes and map their location.
- Supporting mapping efforts to identify areas of existing permafrost.
- Improving accuracy of hazard area maps to educate residents about unanticipated risks. Upgrading maps provides a truer measure of risks to a community.

SU-2 Manage Development in High-Risk Areas

Development regulations should consider areas with poor soil conditions, including the following:

- Prohibiting development in areas that have been identified as at-risk to subsidence.
- Restricting development in areas with soil that is considered poor or unsuitable for development.

SU-3 Consider Subsidence in Building Design

If subsidence is considered during building design, future damage may be prevented. Potential actions include:

- Educating design professionals about where to locate information on subsidence rates and maps.
- Incorporating structural designs that can resist loading associated with subsidence.
- Adopting an ordinance promoting permafrost sensitive construction practices.
- Including potential subsidence in freeboard calculations for buildings in flood-prone areas.

SU-4 Monitor Subsidence Risk Factors

Several risk factors can be monitored to help predict subsidence, such as the following:

- Monitoring areas at risk to subsidence by remaining aware of changes in groundwater levels.
- Monitoring areas where natural resources are removed from underground.
- Filling or buttressing subterranean open spaces, as with abandoned mines, to prevent or alleviate collapse.

TSU-1 Map and Assess Vulnerability to Tsunami

Tsunami risk can be better assessed and monitored with mapping techniques, including the following:

- Using GIS to map areas that are vulnerable to inundation by tsunamis.
- Developing and maintaining a database to track community vulnerability to tsunamis.
- Offering GIS hazard mapping online for residents and design professionals.
- Educating map users on the appropriate uses and limitations of maps.
- More accurately mapping problem areas to educate residents about unanticipated risks. Upgrading maps provides a truer measure of risks to a community.

TSU-2 Manage Development in Tsunami Hazard Areas

Planning and regulations can mitigate tsunami damage in many ways, such as:

- Adopting and enforcing building codes and design standards that contain requirements for



tsunami-resistant design.

- Limiting new development in tsunami run-up areas.
- Encouraging new development that is configured to minimize tsunami losses by using site planning strategies that slow water currents, steer water forces, and block water forces.

TSU-3 Protect Against Fire Following Tsunami

Communities can encourage wildfire mitigation measures (i.e., tree breaks) in tsunami-prone areas to reduce impacts of fires that may occur after a tsunami hits the coastline.

WF-1 Map and Assess Vulnerability to Wildfire

The first step in local planning is to identify wildfire hazard areas and assess overall community vulnerability. Potential actions include:

- Using GIS mapping of wildfire hazard areas to facilitate analysis and planning decisions through comparison with zoning, development, infrastructure, etc.
- Developing and maintaining a database to track community vulnerability to wildfire.
- Creating a wildfire scenario to estimate potential loss of life and injuries, the types of potential damage, and existing vulnerabilities within a community to develop wildfire mitigation priorities.

WF-2 Incorporate Wildfire Mitigation in the Comprehensive Plan

Communities can review comprehensive plans to ensure wildfire mitigation has been addressed. The comprehensive plan may include the following:

- Recognizing the existence of wildfire hazards and identifying areas of risk based on a wildfire vulnerability assessment.
- Describing policies and recommendation for addressing wildfire risk and discouraging expansion in the wildland-urban interface.
- Including considerations of wildfire hazards in land use, public safety, and other elements of the comprehensive plan.

WF-3 Reduce Risk through Land Use Planning

Local governments can mitigate future losses by regulating development in wildfire hazard areas through land use planning, including:

- Using zoning and/or a special wildfire overlay district to designate high-risk areas and specify the conditions for the use and development of specific areas.
- Addressing density and quantity of development, as well emergency access, landscaping and water supply.
- Promoting conservation of open space or wildland-urban boundary zones to separate developed areas from high-hazard areas.
- Setting guidelines for annexation and service extensions in high-risk areas.

WF-4 Develop a Wildland- Urban Interface Code



Communities can develop regulations for safer construction and incorporate mitigation considerations into the permitting process. Potential actions include:

- Developing specific design guidelines and development review procedures for new construction, replacement, relocation, and substantial improvement in wildfire hazard areas.
- Addressing fire mitigation through access, signage, fire hydrants, water availability, vegetation management, and special building construction standards.
- Involving fire protection agencies in determining guidelines and standards and in development and site plan review procedures.
- Establishing wildfire mitigation planning requirements for large scale developments or planned unit developments.

WF-5 Require or Encourage Fire-Resistant Construction Techniques

A local government can encourage fire-resistant construction or may choose to require it through local regulations. Examples include:

- Encouraging the use of non-combustible materials (i.e., stone, brick, and stucco) for new construction in wildfire hazard areas.
- Using fire resistant roofing and building materials in remodels, upgrades, and new construction.
- Enclosing the foundations of homes and other buildings in wildfire-prone areas, rather than leaving them open and potentially exposing undersides to blown embers or other materials.
- Prohibiting wooden shingles/wood shake roofs on any new development in areas prone to wildfires.
- Encouraging the use of functional shutters on windows.

MU-1 Assess Community Risk

Understanding community vulnerability and level of risk is important to identify and prioritize mitigation alternatives. Improve risk assessment through the following:

- Obtaining local data including tax parcels, building footprints, critical facility locations, and other information for use in risk analysis.
- Developing and maintaining a database to track community vulnerability (i.e., exposure in known hazard areas).
- Establishing a process to coordinate with state and Federal agencies to maintain up-to-date hazard data, maps, and assessments.
- Keeping aerial photography current, especially in rapidly developing areas.
- Identifying the most at-risk critical facilities and evaluating potential mitigation techniques.

MU-2 Map Community Risk

Maps are an important tool for communicating risk. Consider the following for developing GIS capabilities:

- Developing a coordinated GIS Department. Find out who uses GIS, determine how it is used, and identify other potential uses.
- Incorporating a GIS system/management plan for tracking permitting, land use patterns, etc.
- Obtaining hazard data and using GIS to map risk for various hazards.

MU-3 Prevent Development in Hazard Areas



Limit or prohibit development in high-hazard areas through the following types of actions:

- Encouraging clustering of residential lots outside of hazard areas in subdivision design/review.
- Prohibiting or limiting public expenditures for capital improvements in known hazard areas.
- Organizing a managed retreat from very high-risk areas.
- Purchasing the “right of first refusal” for hazard-prone parcels targeted for public acquisition.
- Purchasing land and title in the name of a local governing body to remove structures and enforce permanent restrictions on development.
- Acquiring and using easements (e.g., conservation) to prevent development in known hazard areas.
- Using conservation easements to protect environmentally significant portions of parcels from development.
- Acquiring hazardous areas for conservation or restoring as functional public parks.
- Acquiring safe sites for public facilities (e.g., schools, police/fire stations, etc.).
- Prohibiting new facilities for persons with special needs/mobility concerns in hazard areas.
- Prohibiting animal shelters in known hazard areas.

MU-4 Adopt Development Regulations in Hazard Areas

Regulate development in hazard areas. Examples include:

- Using subdivision and development regulations to regulate development in hazard-prone areas.
- Evaluating the use of performance/impact zoning to set risk-based standards for land development.
- Requiring setbacks from delineated hazard areas (e.g., shorelines, wetlands, steep slopes, etc.).
- Requiring conditional/special use permits for the development of known hazard areas.
- Offering expanded development rights to developers/businesses for performing mitigation retrofits.
- Incorporating restrictive covenants on properties located in known hazard areas.
- Designating high-risk zones as special assessment districts (to fund necessary hazard mitigation projects).

MU-5 Limit Density in Hazard Areas

Limit the density of development in the hazard areas through the following techniques:

- Increasing minimum lot size for development in known hazard areas.
- Designating “agricultural use districts” in the zoning ordinance to limit densities in known hazard areas.
- Ensuring the zoning ordinance encourages higher densities only outside of known hazards areas.
- Requiring clustering for planned unit developments (PUD) in the zoning ordinance to reduce densities in known hazard areas.
- Establishing a local transfer of development rights (TDR) program for risk in known hazard areas.
- Establishing a process to use floating zones to reduce densities in damaged areas following a disaster event.

MU-6 Integrate Mitigation into Local Planning

Hazard mitigation can be integrated into local planning efforts through the following:



- Incorporating risk assessment and hazard mitigation principles into comprehensive planning efforts.
- Incorporating a stand-alone element for hazard mitigation into the local comprehensive (land use) plan.
- Incorporating hazard mitigation into broader growth management (i.e., Smart Growth) initiatives.
- Incorporating a hazard risk assessment into the local development and subdivision review process.
- Adding hazard mitigation measures to existing adequate public facilities (APF) tests and programs.
- Ensuring natural hazards are considered in all land suitability analyses (LSA).
- Determining and enforcing acceptable land uses to alleviate the risk of damage by limiting exposure in such hazard areas.
- Developing a post-disaster reconstruction plan to facilitate decision making following a hazard event.
- Involving citizens in comprehensive planning activities that identify and mitigate hazards.

MU-7 Strengthen Land Use Regulations

Land use regulations can reduce hazard risk through the following:

- Using bonus/incentive zoning to encourage mitigation measures for private land development.
- Using conditional use zoning to require or exact mitigation measures for private land development.
- Establishing a process to use overlay zones to require mitigation techniques in high-hazard districts.
- Adopting a post-disaster recovery ordinance based on a plan to regulate repair activity, generally depending on property location.
- Adopting environmental review standards.
- Incorporating proper species selection, planting, and maintenance practices into landscape ordinances.

MU-8 Adopt and Enforce Building Codes

Building codes and inspections help ensure buildings can adequately withstand damage during hazard events. Effective actions include:

- Adopting the International Building Code (IBC) and International Residential Code (IRC).
- Increasing the local Building Code Effectiveness Grading Schedule (BCEGS) classification through higher building code standards and enforcement practices.
- Incorporating higher standards for hazard resistance in local application of the building code.
- Providing advanced training to local building inspectors.
- Considering orientation of new development during design (e.g., subdivisions, buildings, infrastructure, etc.)
- Requiring standard tie-downs of propane tanks.
- Requiring tie-downs for all manufactured housing.
- Establishing moratorium procedures to guide the suspension of post-disaster reconstruction permits.
- Revising fire codes to limit hotel room occupancy to ensure timely evacuation of high-use and



- multi-floor structures.
- Establishing “value-added” incentives for hazard-resistant construction practices beyond code requirements.

MU-9 Create Local Funding Mechanisms for Hazard Mitigation

Local funding resources can be developed through the following measures:

- Establishing a local reserve fund for public mitigation measures.
- Using impact fees to help fund public hazard mitigation projects related to land development (i.e., increased runoff).
- Requiring a development impact tax on new construction to mitigate the impacts of that development.
- Recruiting local financial institutions to participate in “good neighbor” lending for private mitigation practices.
- Providing local match to Federal funds that can fund private mitigation practices.

MU-10 Incentivize Hazard Mitigation

Incentives and disincentives can be used to promote hazard mitigation through the following measures:

- Using special tax assessments to discourage builders from constructing in hazardous areas.
- Using insurance incentives and disincentives (i.e., incentives for best practices).
- Providing tax incentives for development of low-risk hazard parcels.
- Waiving permitting fees for home construction projects related to mitigation.
- Using tax abatements, public subsidies, and other incentives to encourage private mitigation practices.
- Reducing or deferring the tax burden for undeveloped hazard areas facing development pressure.
- Encouraging infill development through tax incentives, streamlined approval processes, etc.

MU-11 Monitor Mitigation Plan Implementation

Monitoring the implementation of the local mitigation plan can ensure that mitigation actions are being completed through:

- Forming a plan implementation steering committee to monitor progress on local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government.
- Preparing a plan implementation monitoring schedule and outlining roles for those responsible for monitoring (i.e., local departments, agencies, and committees).
- Preparing and submitting an annual plan implementation progress report to the local elected body.

STRUCTURE AND INFRASTRUCTURE PROJECTS

D-7 Retrofit Water Supply Systems



Improve water supply and delivery systems to save water through actions such as:

- Designing water delivery systems to accommodate drought events.
- Developing new or upgrading existing water delivery systems to eliminate breaks and leaks.

EQ-5 Protect Critical Facilities and Infrastructure

Reduce potential damage to critical facilities and infrastructure from future seismic events through actions such as:

- Conducting seismic retrofitting for critical public facilities most at risk to earthquakes.
- Requiring bracing of generators, elevators, and other vital equipment in hospitals.
- Identifying and hardening critical lifeline systems (i.e., critical public services such as utilities and roads) to meet “Seismic Design Guidelines and Standards for Lifelines” or equivalent standards such as American Lifelines Alliance (ALA) guidance. This may distinguish a manageable earthquake from a social and economic catastrophe.
- Reviewing construction plans for all bridges to determine their susceptibility to collapse and retrofitting problem bridges.
- Using flexible piping when extending water, sewer, or natural gas service.
- Installing shutoff valves and emergency connector hoses where water mains cross fault lines.

EQ-6 Implement Structural Mitigation Techniques

Use structural mitigation measures to reduce damage from future seismic events, such as:

- Strengthening and retrofitting non-reinforced masonry buildings and non-ductile concrete facilities that are particularly vulnerable to ground shaking.
- Retrofitting building veneers to prevent failure.
- Building a safe room to provide protection during an earthquake.
- Installing window film to prevent injuries from shattered glass.
- Anchoring rooftop-mounted equipment (i.e., HVAC units, satellite dishes, etc).
- Constructing masonry chimneys greater than 6 feet above a roof with continuous reinforced steel bracing.

ER-4 Remove Existing Buildings and Infrastructure from Erosion Hazard Areas

To prevent damage to buildings and infrastructure from erosion, consider acquiring and demolishing or relocating at-risk buildings and infrastructure and enforcing permanent restrictions on development after land and structure acquisition.

F-12 Remove Existing Structures from Flood Hazard Areas

Communities may remove structures from flood-prone areas to minimize future flood losses by acquiring and demolishing or relocating structures from voluntary property owners and preserving lands subject to repetitive flooding.

F-13 Improve Storm Water Drainage System Capacity

Rainwater and snowmelt can cause flooding and erosion in developed areas. Structural storm water management projects that prevent this include:

- Installing, re-routing, or increasing the capacity of a storm drainage system.



- Increasing drainage or absorption capacities with detention and retention basins, relief drains, spillways, drain widening/dredging or rerouting, logjam and debris removal, extra culverts, bridge modification, dike setbacks, flood gates and pumps, or channel redirection.
- Increasing capacity of storm water detention and retention basins.
- Increasing dimensions of drainage culverts in flood-prone areas.
- Using stream restoration to ensure adequate drainage and diversion of storm water.
- Requiring developers to construct on-site retention basins for excessive storm water and as a firefighting water source.
- Providing grassy swales along roadsides.

F-14 Conduct Regular Maintenance for Drainage Systems and Flood Control Structures

Regular maintenance will help drainage systems and flood control structures continue to function properly. Potential activities include:

- Performing regular drainage system maintenance, such as sediment and debris clearance, as well as detection and prevention of discharges into storm water and sewer systems from home footing drains, downspouts, or sewer pumps.
- Implementing an inspection, maintenance, and enforcement program to help ensure continued structural integrity of dams and levees.
- Routinely cleaning debris from support bracing underneath low-lying bridges.
- Routinely cleaning and repairing storm water drains.
- Regularly clearing sediment build-up on riverbanks near aerial lines.
- Inspecting bridges and identifying if any repairs or retrofits are needed to prevent scour.
- Incorporating ice jam prevention techniques as appropriate.

F-15 Elevate or Retrofit Structures and Utilities

Structures and utilities can be elevated to reduce flood damage, including:

- Elevating structures so that the lowest floor, including the basement, is raised above the base flood elevation.
- Raising utilities or other mechanical devices above expected flood levels.
- Elevating and anchoring manufactured homes or, preferably, keeping manufactured homes out of the floodplain.
- Relocating utilities and water heaters above base flood elevation and using tankless water heaters in limited spaces.

F-16 Flood proof Residential and Non-Residential Structures

Flood proofing techniques may protect certain structures from flood damage, including:

- Wet flood proofing in a basement, which may be preferable to attempting to keep water out completely because it allows for controlled flooding to balance exterior and interior wall forces and discourages structural collapse.
- Encouraging wet flood proofing of areas above base flood elevation.
- Using water resistant paints or other materials to allow for easy cleanup after floodwater exposure in accessory structures or in a garage area below an elevated residential structure.
- Dry flood proofing non-residential structures by strengthening walls, sealing openings, or using waterproof compounds or plastic sheeting on walls to keep water out.



F-17 Protect Infrastructure

Mitigation techniques can be implemented to help minimize losses to infrastructure from flood events, such as:

- Elevating roads and bridges above the base flood elevation to maintain dry access. In situations where flood waters tend to wash roads out, construction, reconstruction, or repair can include not only attention to drainage, but also stabilization or armoring of vulnerable shoulders or embankments.
- Raising low-lying bridges.
- Flood proofing wastewater treatment facilities located in flood hazard areas.
- Flood proofing water treatment facilities located in flood hazard areas.
- Depending on its infrastructure capabilities, using check valves, sump pumps, and backflow prevention devices in homes and buildings.
- Using bioengineered bank stabilization techniques.

F-18 Protect Critical Facilities

Techniques to protect critical facilities from flood events include:

- Requiring that all critical facilities including emergency operations centers (EOC), police stations, and fire department facilities be located outside of flood-prone areas.
- Requiring all critical facilities to meet requirements of Executive Order 11988 and be built 1 foot above the 500-year flood elevation.
- Installing/upgrading storm water pumping stations.
- Raising electrical components of sewage lift stations above base flood elevation.
- Raising manhole openings using concrete pillars.
- Installing watertight covers or inflow guards on sewer manholes.
- Installing flood telemetry systems in sewage lift stations.
- Installing back-up generators for pumping and lift stations in sanitary sewer systems along with other measures (e.g., alarms, meters, remote controls, and switchgear upgrades).
- Building earthen dikes around flood-threatened critical facilities.
- Using bioengineered bank stabilization techniques.

F-19 Construct Flood Control Measures

Small flood control structures can be built to prevent flood damage. Examples include:

- Using minor structural projects that are smaller and more localized (e.g., floodwalls or small berms) in areas that cannot be mitigated through non-structural activities or where structural activities are not feasible due to low densities.
- Using revetments (hardened materials placed atop existing riverbanks or slopes) to protect against floods.
- Using bioengineered bank stabilization techniques.

HA-1 Locate Safe Rooms to Minimize Damage

Locate tornado safe rooms inside or directly adjacent to houses to prevent hail-induced injuries that may occur when taking shelter during a severe thunderstorm.



HA-2 Protect Buildings from Hail Damage

For new construction as well as retrofitting existing buildings, techniques to minimize hail damage include:

- Including measures such as structural bracing, shutters, laminated glass in window panes, and hail-resistant roof coverings or flashing in building design to minimize damage.
- Improving roof sheathing to prevent hail penetration.
- Installing hail resistant roofing and siding.
- Contacting the Insurance Institute for Business and Home Safety (IBHS) to learn more about the most appropriate type of roof covering for your geographic region.

LS-3 Prevent Impacts to Roadways

To prevent roadway damage and traffic disruptions from landslides, consider options such as:

- Implementing monitoring mechanisms/procedures (i.e., visual inspection or electronic monitoring systems).
- Applying soil stabilization measures, such as planting soil- stabilizing vegetation on steep, publicly-owned slopes.
- Using debris-flow measures that may reduce damage in sloping areas, such as stabilization, energy dissipation, and flow control measures.
- Establishing setback requirements and using large setbacks when building roads near slopes of marginal stability.
- Installing catch-fall nets for rocks at steep slopes near roadways.

LS-4 Remove Existing Buildings and Infrastructure from Landslide Hazard Areas

To help mitigate landslide hazards, communities can acquire and demolish or relocate at-risk buildings and infrastructure and enforce permanent restrictions on development after land and structure acquisition.

L-1 Protect Critical Facilities and Equipment

Protect critical facilities and infrastructure from lightning damage with the following measures:

- Installing lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.
- Installing and maintaining surge protection on critical electronic equipment.

SRL-4 Protect Buildings and Infrastructure

Existing structures, infrastructure, and critical facilities can be protected from sea level rise through the following:

- Acquiring and demolishing or relocating structures located in high-risk areas.
- Retrofitting structures to elevate them above potential sea level rise levels.
- Retrofitting critical facilities to be 1 foot above the 500-year flood elevation (considering wave action) or the predicted sea level rise level, whichever is higher.
- Replacing exterior building components with more hazard- resistant materials.

SW-5 Retrofit Residential Buildings



The following types of modifications or retrofits to existing residential buildings can reduce future wind damage:

- Improving the building envelope.
- Installing hurricane shutters or other protective measures.
- Retrofitting gable end walls to eliminate wall failures in high winds.
- Replacing existing non-ductile infrastructure with ductile infrastructure to reduce their exposure to hazardous events.
- Retrofitting buildings with load-path connectors to strengthen the structural frames.
- Installing safe rooms.
- Reinforcing garage doors.
- Inspecting and retrofitting roofs to adequate standards to provide wind resistance.

SW-6 Retrofit Public Buildings and Critical Facilities

Public buildings and critical facilities can be retrofitted to reduce future wind damage with the following actions:

- Improving roof coverings (e.g., no pebbles, remove ballast roof systems).
- Anchoring roof-mounted heating, ventilation, and air conditioning units.
- Retrofitting buildings with load-path connectors to strengthen the structural frames.
- Retrofitting or constructing the emergency operations center to FEMA 361 standards.
- Avoiding placing flag poles or antennas near buildings.
- Upgrading and maintaining existing lightning protection systems to prevent roof cover damage.
- Requiring upgrading of reused buildings that will house critical facilities.
- Protecting traffic lights and other traffic controls from high winds.
- Converting traffic lights to mast arms.

WW-2 Protect Buildings and Infrastructure

Buildings and infrastructure can be protected from the impacts of winter storms with the following techniques:

- Adding building insulation to walls and attics.
- As buildings are modified, using new technology to create or increase structural stability.
- Retrofitting public buildings to withstand snow loads and prevent roof collapse.



WW-3 Protect Power Lines

Power lines can be protected from the impacts of winter storms with the following techniques:

- Establishing standards for all utilities regarding tree pruning around lines.
- Burying overhead power lines.
- Using designed-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
- Installing redundancies and loop feeds.

WW-4 Reduce Impacts to Roadways

The leading cause of death during winter storms is from automobile or other transportation accidents, so it is important to consider ways to lessen roadway impacts. Potential strategies include:

- Planning for and maintaining adequate road and debris clearing capabilities.
- Using snow fences or “living snow fences” (e.g., rows of trees or other vegetation) to limit blowing and drifting of snow over critical roadway segments.
- Installing roadway heating technology to prevent ice/snow buildup.

SS-5 Construct Structural Control Techniques

Structural controls can be used to lessen the impact of storm surge. Examples include the following:

- Constructing groins to capture material along the shoreline in order to trap and retain sand.
- Installing geotextile sand tubes to trap sand or protect beachfront properties.
- Building a coastal berm to absorb waves and protect the shoreline from erosion.
- Building a storm berm to keep rock protection in place and provide a slow supply of sediment to the coastal system.

SS-6 Protect Infrastructure and Critical Facilities

Infrastructure and critical facilities can be protected from damage by storm surge through the following:

- Reorienting near-shore roads so they are parallel (not perpendicular) to the beach to prevent the channelization of storm surge and wind inland.
- Constructing seawalls or other structures to protect critical facilities located on the shoreline.
- Relocating existing vulnerable critical facilities outside of high-risk areas.

SU-5 Remove Existing Structures from Subsidence Hazard Areas

To prevent property loss, acquire and demolish or relocate buildings and infrastructure in high-risk areas.

TSU-4 Build Tsunami Shelters

Ensure the population is adequately protected from tsunami inundation by constructing tsunami shelters.

TSU-5 Protect Buildings and Infrastructure

Ensure buildings and infrastructures are adequately protected from tsunami inundation with the



following:

- Requiring coastal structures to be built to standards that allow for proper vertical evacuation and to be specially designed and constructed to resist both tsunami and earthquake loads.
- Locating new and relocating existing infrastructure and critical facilities outside of the tsunami hazard area.
- Elevating existing buildings above the inundation level.
- Relocating fire-prone infrastructure such as electrical lines or case tanks.

WF-6 Retrofit At-Risk Structures with Ignition-Resistant Materials

Existing structures in wildfire hazard areas can be protected through the use of non-combustible materials and technologies, including:

- Installing roof coverings, sheathing, flashing, skylights, roof and attic vents, eaves, and gutters that conform to ignition-resistant construction standards.
- Installing wall components that conform to ignition-resistant construction standards.
- Protecting propane tanks or other external fuel sources.
- Purchasing and installing external, structure-specific water hydration systems (sprinklers); dedicated power sources; and dedicated cisterns if no water source (e.g., lake, river, or swimming pool) is available.

WF-7 Create Defensible Space around Structures and Infrastructure

Local governments can implement defensible space programs to reduce risk to structures and infrastructure, including:

- Creating buffers around residential and non-residential structures through the removal or reduction of flammable vegetation, including vertical clearance of tree branches.
- Replacing flammable vegetation with less flammable species.
- Creating defensible zones around power lines, oil and gas lines, and other infrastructure systems.

WF-8 Conduct Maintenance to Reduce Risk

Local governments can implement maintenance procedures to reduce wildfire risk, including:

- Performing arson prevention cleanup activities in areas of abandoned or collapsed structures, accumulated trash or debris, and with a history of storing flammable materials where spills or dumping may have occurred.
- Preventing or alleviating wildfires by proper maintenance and separation of power lines as well as efficient response to fallen power lines.
- Routinely inspecting the functionality of fire hydrants.
- Requiring and maintaining safe access for fire apparatus to wildland-urban interface neighborhoods and properties.

MU-12 Protect Structures

Damage to structures can be prevented through the following actions:

- Acquiring or relocating structures located in hazard areas.
- Moving vulnerable structures to a less hazardous location.



- Relocating or retrofitting public buildings located in high-hazard areas.
- Relocating or retrofitting endangered public housing units in high-hazard areas.
- Retrofitting fire and police stations to become hazard resistant.
- Identifying and strengthening facilities to function as public shelters.

MU-13 Protect Infrastructure and Critical Facilities

Infrastructure and critical facilities can be protected from damage by the following:

- Incorporating hazard mitigation principles into all aspects of public-funded building.
- Incorporating mitigation retrofits for public facilities into the annual capital improvements program.
- Engineering or retrofitting roads and bridges to withstand hazards.
- Relocating or undergrounding electrical infrastructure.
- Designing and building water tanks or wells for use in times of water outage.
- Installing quick-connect emergency generator hook-ups for critical facilities

NATURAL SYSTEMS PROTECTION

D-8 Enhance Landscaping and Design Measures

Encourage drought-tolerant landscape design through measures such as:

- Incorporating drought tolerant or xeriscaping practices into landscape ordinances to reduce dependence on irrigation.
- Providing incentives for xeriscaping.
- Using permeable driveways and surfaces to reduce runoff and promote groundwater recharge.

EQ-7 Increase Earthquake Risk Awareness

There are many ways to increase awareness of earthquake risk, including:

- Working with insurance industry representatives to increase public awareness of the importance of earthquake insurance. Residential structural improvements can be factored into the process of obtaining insurance coverage or reduced deductibles.
- Developing an outreach program about earthquake risk and mitigation activities in homes, schools, and businesses.
- Educating homeowners on safety techniques to follow during and after an earthquake.
- Offering GIS hazard mapping online for residents and design professionals.

EQ-8 Conduct Outreach to Builders, Architects, Engineers, and Inspectors

Building susceptibility to earthquake damage can be improved if design professionals are made aware of proper design and building requirements. Outreach activities include:

- Conducting information sessions or other forms of outreach on seismic code provisions for new and existing buildings to enhance code use and enforcement by local architects, engineers, contractors, and code enforcement personnel.
- Training building department staff and officials on Form ATC-20 for post-earthquake building



evaluation. The ATC-20 report and addendum, prepared by the Applied Technology Council, provide procedures and guidelines for making on-the-spot evaluations and decisions regarding continued use and occupancy of earthquake- damaged buildings.

EQ-9 Provide Information on Structural and Non-Structural Retrofitting

Property owners can retrofit existing structures to reduce damage from seismic events. Potential actions include the following:

- Educating homeowners about structural and non-structural retrofitting of vulnerable homes and encouraging retrofit.
- Developing a technical assistance information program for homeowners. Teaching them how to seismically strengthen their houses can be an effective mitigation activity. The program can include providing local government building departments with copies of existing strengthening and repair information for distribution.
- Developing an outreach program to encourage homeowners to secure furnishings, storage cabinets, and utilities to prevent injuries and damage. Examples include anchoring tall bookcases and file cabinets, installing latches on drawers and cabinet doors, restraining desktop computers and appliances, using flexible connections on gas and water lines, mounting framed pictures and mirrors securely, and anchoring and bracing propane tanks and gas cylinders.
- Establishing a library of technical documents on structural and non-structural mitigation options as well as model ordinances and procedures that have been used by other jurisdictions to reduce earthquake risk.

ER-5 Stabilize Erosion Hazard Areas

To stabilize slopes susceptible to erosion, consider options such as:

- Preventing erosion with proper bank stabilization, sloping or grading techniques, planting vegetation on slopes, terracing hillsides, or installing riprap boulders or geotextile fabric.
- Stabilizing cliffs with terracing or plantings of grasses or other plants to hold soil together.
- Prohibiting removal of natural vegetation from dunes and slopes.
- Planting mature trees in the coastal riparian zone to assist in dissipation of the wind force in the breaking wave zone.
- Using a hybrid of hard/soft engineering techniques (i.e., combine low-profile rock, rubble, oyster reefs, or wood structures with vegetative planting or other soft stabilization techniques).
- Implementing marine riparian habitat reinstatement or revegetation.
- Using a rock splash pad to direct runoff and minimize the potential for erosion.
- Using bioengineered bank stabilization techniques.

F-20 Protect and Restore Natural Flood Mitigation Features

Natural resources provide floodplain protection, riparian buffers, and other ecosystem services that mitigate flooding. It is important to preserve such functionality with the following:

- Protecting and enhancing landforms that serves as natural mitigation features (i.e., riverbanks, wetlands, dunes, etc.).
- Using vegetative management, such as vegetative buffers, around streams and water sources.
- Protecting and preserving wetlands to help prevent flooding in other areas.
- Establishing and managing riparian buffers along rivers and streams.
- Retaining natural vegetative beds in storm water channels.



- Retaining thick vegetative cover on public lands flanking rivers.

F-21 Preserve Floodplains as Open Space

Preserving natural areas and vegetation benefits natural resources while also mitigating potential flood losses. Techniques include:

- Developing an open space acquisition, reuse, and preservation plan targeting hazard areas.
- Developing a land banking program for the preservation of the natural and beneficial functions of flood hazard areas.
- Using transfer of development rights to allow a developer to increase densities on another parcel that is not at risk in return for keeping floodplain areas vacant.
- Compensating an owner for partial rights, such as easement or development rights, to prevent a property from being developed.

F-22 Increase Awareness of Flood Risk and Safety

Ideas for increasing flood risk awareness include the following:

- Encouraging homeowners to purchase flood insurance.
- Annually distributing flood protection safety pamphlets or brochures to the owners of flood-prone property.
- Educating citizens about safety during flood conditions, including the dangers of driving on flooded roads.
- Using outreach programs to advise homeowners of risks to life, health, and safety.
- Offering GIS hazard mapping online for residents and design professionals.
- Establishing a Program for Public Information (PPI) with a PPI committee (as suggested by Activity 332 of the CRS Coordinator's Manual).

SLR-5 Preserve High-Hazard Areas as Open Space

Preserve open space to benefit natural resources and to reduce risk to structures from potential sea level rise. Techniques include:

- Developing an open space acquisition, reuse, and preservation plan targeting hazard areas.
- Developing a land banking program for the preservation and management of the natural and beneficial functions of flood hazard areas.
- Adopting rolling easements along the shoreline to promote natural migration of shorelines.
- Using transfer of development rights to allow a developer to increase densities on another parcel that is not at risk in return for keeping floodplain areas vacant.
- Compensating an owner for partial rights, such as easement or development rights, to prevent a property from being developed.

SLR-6 Protect and Restore Natural Buffers

Natural resources provide floodplain protection, riparian buffers, and other ecosystem services that mitigate sea level rise. It is important to preserve such functionality with the following:

- Examining the appropriate use of beach nourishment, sand scraping, dune-gap plugs, etc., for coastal hazards.
- Implementing dune restoration, plantings (e.g., sea oats), and use of natural materials.



- Examining the appropriate use of sediment-trapping vegetation, sediment mounds, etc., for coastal hazards.
- Planting sediment-trapping vegetation to buffer the coast against coastal storms by collecting sediment in protective features such as dunes or barrier islands.
- Performing sand scraping—using bulldozers to deposit the top foot of sand above the high-tide line—to reinforce the beach without adding new sand.
- Using sediment mounds to act as artificial dunes or plugs for natural dune gaps in order to slow the inland progress of storm-related wind and water.

SS-7 Protect and Restore Natural Buffers

Natural resources provide floodplain protection, riparian buffers, and other ecosystem services that mitigate storm surge risk. It is important to preserve such functionality with the following:

- Examining the appropriate use of beach nourishment, sand scraping, dune-gap plugs, etc., for coastal hazards.
- Implementing dune restoration, plantings (e.g., sea oats), and use of natural materials.
- Evaluating the appropriate use of sediment-trapping vegetation, sediment mounds, etc., for coastal hazards.
- Planting sediment-trapping vegetation to make the coast more resistant to coastal storms by collecting sediment in protective features such as dunes or barrier islands.
- Performing sand scraping—using bulldozers to deposit the top foot of sand above the high-tide line—to reinforce the beach without adding new sand.
- Using sediment mounds to act as artificial dunes or plugs for natural dune gaps in order to slow the inland progress of storm-related wind and water.

WF-9 Implement a Fuels Management Program

A fuels management program may be implemented to reduce hazardous vegetative fuels on public lands, near essential infrastructure, or on private lands by working with landowners. The program can include the following:

- Performing maintenance including fuel management techniques such as pruning and clearing dead vegetation, selective logging, cutting high grass, planting fire-resistant vegetation, and creating fuel/fire breaks (i.e., areas where the spread of wildfires will be slowed or stopped by the removal of fuels).
- Using prescribed burning to reduce fuel loads that threaten public safety and property.
- Identifying and clearing fuel loads created by downed trees.
- Cutting firebreaks into public wooded areas in the wildland-urban interface.
- Sponsoring local “slash and clean-up days” to reduce fuel loads along the wildland-urban interface.
- Linking wildfire safety with environmental protection strategies (i.e., improving forest ecology, wildlife habitat, etc.).
- Developing a vegetation management plan.

EDUCATION AND AWARENESS PROGRAMS



D-9 Educate Residents on Water Saving Techniques

Encourage citizens to take water-saving measures, such as the following:

- Installing low-flow water saving showerheads and toilets.
- Turning water flow off while brushing teeth or during other cleaning activities.
- Adjusting sprinklers to water the lawn and not the sidewalk or street.
- Running the dishwasher and washing machine only when they are full.
- Checking for leaks in plumbing or dripping faucets.
- Installing rain-capturing devices for irrigation.
- Encouraging the installation of gray water systems in homes to encourage water reuse.

D-10 Educate Farmers on Soil and Water Conservation Practices

Encourage farmers to implement soil and water conservation practices that foster soil health and improve soil quality to help increase resiliency and mitigate the impacts of droughts. Potential conservation practices include the following:

- Rotating crops by growing a series of different types of crops on the same fields every season to reduce soil erosion.
- Practicing contour farming by farming along elevation contour lines to slow water runoff during rainstorms and prevent soil erosion, allowing the water time to absorb into the soil.
- Using terracing on hilly or mountainous terrain to decrease soil erosion and surface runoff.
- Planting “cover crops,” such as oats, wheat, and buckwheat, to prevent soil erosion.
- Using zero and reduced tillage to minimize soil disturbance and leave crop residue on the ground to prevent soil erosion.
- Constructing windbreaks to prevent evaporation from reclaiming salt-affected soil.
- Collecting rainwater and using natural runoff to water plants.

D-11 Purchase Crop Insurance

Preserve economic stability during a drought by encouraging agricultural interests to obtain crop insurance to cover potential losses due to drought.

ER-6 Increase Awareness of Erosion Hazards

Consider ways to help citizens become more aware of specific erosion risks in your area, such as:

- Notifying property owners located in high-risk areas.
- Disclosing the location of high-risk areas to buyers.
- Developing a brochure describing risk and potential mitigation techniques.
- Offering GIS hazard mapping online for residents and design professionals.

ET-2 Increase Awareness of Extreme Temperature Risk and Safety

The impacts of extreme temperatures on public health can be lessened if citizens know how to prepare and protect themselves. Ideas for increasing awareness include the following:

- Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.



ET-3 Assist Vulnerable Populations

Measures should be taken to ensure vulnerable populations are adequately protected from the impacts of extreme temperatures, such as:

- Organizing outreach to vulnerable populations, including establishing and promoting accessible heating or cooling centers in the community.
- Requiring minimum temperatures in housing/landlord codes.
- Encouraging utility companies to offer special arrangements for paying heating bills, if not already required by state law.
- Creating a database to track those individuals at high risk of death, such as the elderly, homeless, etc.

ET-4 Educate Property Owners About Freezing Pipes

Extreme cold may cause water pipes to freeze and burst, which can cause flooding inside a building. Ideas for educating property owners include the following:

- Educating homeowners and builders on how to protect their pipes, including locating water pipes on the inside of building insulation or keeping them out of attics, crawl spaces, and vulnerable outside walls.
- Informing homeowners that letting a faucet drip during extreme cold weather can prevent the buildup of excessive pressure in the pipeline and avoid bursting.

F-23 Educate Property Owners about Flood Mitigation Techniques

Educate property owners regarding options for mitigating their properties from flooding through outreach activities such as:

- Using outreach activities to facilitate technical assistance programs that address measures that citizens can take or facilitate funding for mitigation measures.
- Encouraging homeowners to install backflow valves to prevent reverse-flow flood damages.
- Encouraging residents in flood-prone areas to elevate homes.
- Educating the public about securing debris, propane tanks, yard items, or stored objects that may otherwise be swept away, damaged, or pose a hazard if picked up and washed away by floodwaters.
- Asking residents to help keep storm drains clear of debris during storms (not to rely solely on Public Works).

HA-3 Increase Hail Risk Awareness

Conduct outreach activities to increase public awareness of hail dangers, including:

- Mailing safety brochures with monthly water bills.
- Posting warning signage at local parks, county fairs, and other outdoor venues.
- Teaching school children about the dangers of hail and how to take safety precautions.

L-2 Conduct Lightning Awareness Programs

Use outreach programs to promote awareness of lightning dangers. This could include ideas such as:

- Developing a lightning brochure for distribution by recreation equipment retailers or outfitters



in mountainous areas.

- Mailing safety brochures with monthly water bills.
- Posting warning signage at local parks.
- Teaching school children about the dangers of lightning and how to take safety precautions.

SLR-7 Increase Awareness of Sea Level Rise

Improve public awareness of risks due to sea level rise through outreach activities such as:

- Encouraging homeowners to purchase flood insurance.
- Using outreach programs to facilitate technical assistance programs that address measures that citizens can take or facilitate funding for mitigation measures.
- Annually distributing flood protection safety pamphlets or brochures to the owners of property in high-risk areas.
- Educating citizens about safety during flood conditions, including the dangers of driving on flooded roads.
- Using outreach programs to advise homeowners of risks to life, health, and safety.
- Offering GIS hazard mapping online for residents and design professionals.
- Disclosing the location of possible sea level rise areas to potential buyers.

SW-7 Increase Severe Wind Risk Awareness

Improve public awareness of severe wind through outreach activities such as:

- Informing residents of shelter locations and evacuation routes.
- Educating homeowners on the benefits of wind retrofits such as shutters, hurricane clips, etc.
- Ensuring that school officials are aware of the best area of refuge in school buildings.
- Instructing property owners on how to properly install temporary window coverings before a storm.
- Educating design professionals to include wind mitigation during building design.

WW-5 Conduct Winter Weather Risk Awareness Activities

Public awareness of severe winter storms can be improved through the following efforts:

- Informing the public about severe winter weather impacts.
- Producing and distributing family and traveler emergency preparedness information about severe winter weather hazards.
- Including safety strategies for severe weather in driver education classes and materials.
- Encouraging homeowners to install carbon monoxide monitors and alarms.
- Educating citizens that all fuel-burning equipment should be vented to the outside.

WW-6 Assist Vulnerable Populations

Protect vulnerable populations from the impacts of severe winter storms through the following efforts:

- Identifying specific at-risk populations that may be exceptionally vulnerable in the event of long-term power outages.
- Organizing outreach to vulnerable populations, including establishing and promoting accessible heating centers in the community.



SS-8 Provide Information on High-Risk Areas

Increase public awareness of storm surge risk through the following actions:

- Offering GIS hazard mapping online for residents and design professionals.
- More accurately mapping problem areas to educate residents about unanticipated risks. Upgrading maps provides a truer measure of risks to a community.
- Educating property owners in high-risk areas about mitigation options.
- Educating the public about risks, preparedness measures, and evacuation procedures.

SU-6 Educate Residents about Subsidence

Increase residents' knowledge of subsidence through the following:

- Promoting community awareness of subsidence risks and impacts.
- Offering GIS hazard mapping online for residents and design professionals.

T-3 Conduct Tornado Awareness Activities

Conduct outreach activities to increase awareness of tornado risk. Activities could include the following:

- Educating citizens through media outlets.
- Conducting tornado drills in schools and public buildings.
- Teaching school children about the dangers of tornadoes and how to take safety precautions.
- Distributing tornado shelter location information.
- Supporting severe weather awareness week.
- Promoting use of National Oceanic and Atmospheric Administration (NOAA) weather radios.

TSU-6 Increase Public Awareness of Tsunami Hazard

Improve public awareness and better prepare citizens for evacuation during a tsunami by the following:

- Educating citizens regarding the dangers of tsunami and inform them of emergency procedures and routes to use should a tsunami warning be issued.
- Conducting tsunami drills.
- Designating tsunami inundation zones and marking evacuation routes.
- Developing maps showing possible tsunami inundation areas and steering developers away from high-risk areas.
- Participating in NOAA's TsunamiReady Community program.

WF-10 Participate in Firewise Program

The Firewise program provides a series of steps that individual residents and their neighbors can take to keep their homes and neighborhoods safer from fire. Consider actions such as:

- Joining the "Firewise Communities/USA" recognition program sponsored by the National Wildlife Coordinating Group (firewise.org).
- Sponsoring Firewise workshops for local officials, developers, civic groups, and neighborhood/homeowners' associations.
- Consulting Firewise guidance and encouraging or requiring best practices in your community.

WF-11 Increase Wildfire Risk Awareness



Education and outreach programs can target citizens, businesses, developers, landscapers, and insurers among others to increase awareness of wildfire risk and strategies for protecting homes and infrastructure. Consider actions such as:

- Offering GIS hazard mapping online for residents, developers, and design professionals.
- Organizing a local fire department tour to show local elected officials and planners the most vulnerable areas of the community's wildland-urban interface and increase their understanding of risks.
- Working with insurance companies, utility providers, and others to include wildfire safety information in materials provided to area residents.
- Developing partnerships with neighborhood groups, homeowners' associations, and others to conduct outreach activities.
- Using local fire departments to conduct education programs in schools.
- Informing the public about proper evacuation procedures.
- Forming a citizen plan implementation steering committee to monitor progress of local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government.

WF-12 Educate Property Owners about Wildfire Mitigation Techniques

Educate property owners on actions that they can take to reduce risk to property, such as the following:

- Installing fire mitigation systems such as interior and exterior sprinkler systems.
- Performing safe disposal of yard and household waste rather than open burning.
- Removing dead or dry leaves, needles, twigs, and combustibles from roofs, decks, eaves, porches, and yards.
- Creating a defensible space or buffer zone cleared of combustible materials around property.
- Installing and maintaining smoke detectors and fire extinguishers on each floor of their homes or other buildings.
- Safely using and storing necessary flammable materials, including machine fuels.
- Approved safety cans should be used for storing gasoline, oily rags, and other flammable materials. Firewood should be stacked at least 100 feet away and uphill from homes.
- Keeping flammables, such as curtains, secured away from windows or using heavy fire-resistant drapes.

MU-14 Increase Hazard Education and Risk Awareness

Hazard education and awareness activities that address multiple hazards include:

- Developing and implementing a multi-hazard public awareness program.
- Providing information on all types of hazards, preparedness and mitigation measures, and responses during hazard events.
- Establishing a "hazard awareness week" in coordination with the media to promote hazard awareness (seasonal).
- Establishing an interactive website for educating the public on hazard mitigation and preparedness measures.
- Annually hosting a public hazards workshop or exposition for all residents.
- Establishing hazard information centers.
- Creating a speakers bureau for disaster-related topics that focus on mitigation and preparedness measures.



- Enhancing hazard awareness of the private sector, particularly lenders, insurance agents, and realtors.
- Scheduling an annual “what’s new in mitigation” briefing for the local governing body (possibly with SHMO, etc.).

MU-15 Improve Household Disaster Preparedness

Educate the public on how to prepare for hazards and disasters, including the following:

- Encouraging property owners to purchase hazard insurance not as an alternative to mitigation, but rather to add financial protection if damage does occur.
- Encouraging residents to prepare by stocking up the necessary items and planning for how family members should respond during a disaster. Publicized information about household preparedness can be found at www.ready.gov.
- Providing hazard vulnerability checklists for homeowners to conduct their own inspections.
- Promoting the purchase and use of NOAA weather radios by residents.
- Encouraging citizens to secure loose items (i.e., patio furniture).
- Participating in Nation Weather Service StormReady Program.
- Purchasing and installing NOAA weather radios in schools, government buildings, parks, etc.
- Storing digital or hard copies of public records in low-risk, offsite locations.

MU-16 Promote Private Mitigation Efforts

Encourage private mitigation efforts that address multiple hazards through the following:

- Using outreach programs to: 1) advise homeowners of risks to life, health, and safety; 2) facilitate technical assistance programs that address measures that citizens can take; or 3) facilitate funding for mitigation measures.
- Establishing, maintaining, and publicizing a library section on hazard mitigation techniques for local residents.
- Identifying and recruiting civic groups and volunteer agencies for community mitigation projects.
- Establishing a network for a business-to-business mitigation mentoring program.
- Offering hazard susceptibility audits of local small businesses.
- Completing a “demonstration model” showing use of hazard mitigation techniques for public display.
- Establishing a technical assistance program for residents to access data or resources for mitigation purposes.
- Educating the public on tradeoffs associated with multi-hazard design.



APPENDIX F: MITIGATION ACTION PROGRESS REPORT FORM

[Name of Jurisdiction]						
Hazard-Specific Action Items 2021-2025 – Annual Review and Progress						
Action Items	Status (Choose One & Enter Letter):					Notes on yearly progress
	2021	2022	2023	2024	2025	
GENERAL: ALL HAZARDS						
Add New Action Items if Applicable						
DAM/LEEVE FAILURES						
Add New Action Items if Applicable						
DROUGHTS/HEAT WAVES						
Add New Action Items if Applicable						
EARTHQUAKES						
Add New Action Items if Applicable						



FLOODING						
Add New Action Items if Applicable						
LANDSLIDES/EROSION						
Add New Action Items if Applicable						
LAND SUBSIDENCE						
Add New Action Items if Applicable						
TORNADOES						
Add New Action Items if Applicable						
TSUNAMI						
Add New Action Items if Applicable						
WILDFIRES						
Add New Action Items if Applicable						



WINTER STORMS/FREEZES (SEVERE WINTER WEATHER)						
Add New Action Items if Applicable						
SEVERE STORMS						
Add New Action Items if Applicable						
EXTREME TEMPERATURES						
Add New Action Items if Applicable						
LANDSLIDE						
Add New Action Items if Applicable						
LIGHTNING						
Add New Action Items if Applicable						
SEVERE WIND						
Add New Action Items if Applicable						



MULTIPLE HAZARDS						
<i>Add New Action Items if Applicable</i>						

Progress Report Period	From Date:	To Date:
Action Item		
Responsible Agency		
Contact Name		
Contact Phone/Email		
Action Status	<input type="checkbox"/> Action completed <input type="checkbox"/> Action canceled <input type="checkbox"/> Action on schedule Anticipated completion date: _____ <input type="checkbox"/> Action delayed Explain: _____	



Summary of Action Progress for this Report Period

1. What was accomplished for this Action during this reporting period?

2. What obstacles, problem, or delays did the Action encounter?

3. If uncompleted, is the Action still relevant? Should the Action be changed or revised?

4. Other comments



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APPENDIX G: WHATCOM COUNTY CONTACT LIST

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone
1	Whatcom County	Whatcom County- unincorporated area	Deputy Director John Gargett	3888 Sound Way Bellingham ,WA 98226	ggargett@co.whatcom.wa.us	360-676-6681
2	City of Bellingham	City	Emergency Manager, Office of Emergency Management Liz Coogan	Fire Dept. 1800 Broadway Bellingham, WA 98225	Liz Coogan(ecoogan@cob.org)	(360) 778-8444
3	City of Blaine	City	Community Development Services Director Stacie Pratschner	435 Martin St. Blaine, WA 98230	spratschner@cityofblaine.com	360-332-8311
4	Sumas	City	Rollin Harper	433 Cherry Street, Sumas, WA 98295	'rollinh@sehome.com'	(360) 733-6033
5	Everson	City	Rollin Harper	433 Cherry Street, Sumas, WA 98295	'rollinh@sehome.com'	(360) 733-6033
6	Nooksack	City	Rollin Harper	433 Cherry Street, Sumas, WA 98295	'rollinh@sehome.com'	(360) 733-6033



7	Whatcom County Flood Zone	Special purpose District	Paula Harris River & Flood Manager	322 N Commercial Street, Suite 110 Bellingham, WA 98225	PHarris@co.whatcom.wa.us>	(360) 778-6285
8	Ferndale	City	City Administrator Jori Burnett	P.O. Box 936, Ferndale, WA 98248		(360) 685-2351
9	Lake Whatcom Water and Sewer District	Special purpose District	Justin Clary – General Manager	LAKE WHATCOM WATER & SEWER DISTRICT 1220 Lakeway Drive Bellingham, WA 98229	justin.clary@lwwsd.org	(360) 734-9224
10	Lynden	City	Mike Martin, City Administrator	City of Lynden 300 4th St. Lynden, WA 98264	martinm@Lyndenwa.org	(360) 354-1170, ext 5
11	Meridian School District	School District	Superintendent, Dr. James Everett	214 West Laurel Road, Bellingham, WA 98226	Jeverett@meridian.webnet.edu	360-398-7111
12	Port of Bellingham	Port	Emergency Management/Security Officer Scott McCreery	1801 Roeder Avenue Bellingham, WA	scottm@portofbellingham.com	(360) 303-5211



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Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-631

File ID:	AB2021-631	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	JThomson@co.whatcom.wa.us		
Department:	Health Department	File Type:	Contract		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: SSullivan@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into a contract between Whatcom County and Aristo Healthcare Services to provide staffing at the COVID Isolation and Quarantine Facility, in the estimated amount of \$200,000

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attachments

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Staff Memo, Proposed Contract



MEMORANDUM

TO: Satpal Sidhu, County Executive
FROM: Erika Lautenbach, Director
RE: Aristo Healthcare Services – COVID Temporary Housing Facility Contract
DATE: October 29, 2021

Attached is a contract between Whatcom County and Aristo Healthcare Services for your review and signature.

▪ **Background and Purpose**

During the COVID-19 pandemic, it is necessary for Whatcom County to implement actions that will mitigate the spread of the disease and provide basic services in support of public health for the community at large. In order to respond to people in need of isolation and quarantine, who have no other options to accomplish such, Whatcom County opened a COVID-19 Isolation and Quarantine Facility (Facility). Since March of 2020, Lighthouse Mission and SeaMar Community Health Centers have provided on-site support to ensure operational, social distance, and public health related concerns are addressed at the Facility, however, both agencies will end their services at the Facility on 9/30/2021. Road2Home will assume administrative oversight of daily operations at the Facility but need time for transition and staffing planning.

Aristo Healthcare Services (Aristo) provides temporary, per-diem, temp-to-hire and contract staffing services. This contract provides funding for Aristo to immediately fill the staffing gap at the Facility during the transition from Lighthouse Mission and SeaMar Community Health Services to Road2Home, as the contracted Facility operator.

▪ **Funding Amount and Source**

Total funding is estimated at \$200,000. Funding for this contract will vary depending on the number of employees assigned to the Facility, the position's hourly rate (including overtime, holiday, and weekend rates), various personnel accommodations (travel, meals, quarantine pay, etc.). Funds for this contract are made available by a grant awarded by the Federal Emergency Management Agency (FEMA), passed through the Washington State Military Department (Funding Source Agreement #FEMA-4481-DR-WA) (CFDA 97.036, Public Assistance). These funds are included in the 2021 budget. Council approval is required as estimated funding is expected to exceed \$40,000.

Please contact Sue Sullivan, Environmental Health Manager at 360-778-6026 (SSullivan@co.whatcom.wa.us) or Kathleen Roy, Assistant Director at 360-778-6007 (KRoy@co.whatcom.wa.us), if you have any questions or concerns regarding this request.



WHATCOM COUNTY CONTRACT INFORMATION SHEET				Whatcom County Contract No. _____	
Originating Department:			85 Health		
Division/Program: (i.e. Dept. Division and Program)			8510 Administration / 851000 Administration		
Contract or Grant Administrator:			Sue Sullivan		
Contractor's / Agency Name:			Aristo Healthcare Services		
Is this a New Contract?		If not, is this an Amendment or Renewal to an Existing Contract?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #:			
Does contract require Council Approval?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If No, include WCC: _____	
Already approved? Council Approved Date:		(Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)			
Is this a grant agreement?		If yes, grantor agency contract number(s):		CFDA#:	97.036
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Is this contract grant funded?		If yes, Whatcom County grant contract number(s):		Pending, assigned #202006004	
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>				
Is this contract the result of a RFP or Bid process?		If yes, RFP and Bid number(s):		Contract Cost Center:	660460
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Is this agreement excluded from E-Verify?		No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>		
If YES, indicate exclusion(s) below:					
<input type="checkbox"/> Professional services agreement for certified/licensed professional.					
Contract work is for less than \$100,000.			<input type="checkbox"/> Contract for Commercial off the shelf items (COTS).		
<input type="checkbox"/> Contract work is for less than 120 days.			<input type="checkbox"/> Work related subcontract less than \$25,000.		
<input type="checkbox"/> Interlocal Agreement (between Governments).			<input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.		
Contract Amount:(sum of original contract amount and any prior amendments):			Council approval required for; all property leases, contracts or bid awards exceeding \$40,000 , and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when:		
Varies depending on the number of staff provided and staff hourly rates. Max \$200,000			1. Exercising an option contained in a contract previously approved by the council.		
			2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance.		
			3. Bid or award is for supplies.		
			4. Equipment is included in Exhibit "B" of the Budget Ordinance		
			5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.		
Summary of Scope: This contract provides funding for staffing and operations at the COVID Isolation and Quarantine Facility.					
Term of Contract:		3 months, 9 days		Expiration Date: 12/31/2021	
Contract Routing:		1. Prepared by: JT		Date:	09/15/2021
		2. Health Budget Approval: KR/JG		Date:	10/19/2021
		3. Attorney signoff: RB		Date:	10/29/2021
		4. AS Finance reviewed: M Caldwell		Date:	10/29/21
		5. IT reviewed (if IT related):		Date:	
		6. Contractor approved:		Date:	
		7. Submitted to Exec.:		Date:	
		8. Council approved (if necessary): AB2021-631		Date:	
		9. Executive signed:		Date:	
		10. Original to Council:		Date:	

CONTRACT FOR SERVICES
Between Whatcom County and Aristo Healthcare Services

Aristo Healthcare Services, hereinafter called **Contractor** and Whatcom County, hereinafter referred to as **County**, agree and contract as set forth in this Agreement, including:

General Conditions, pp. 3 to 11,
Exhibit A (Scope of Work), pp. 12 to 13,
Exhibit B (Compensation), p. 14 to 15,
Exhibit C (Certificate of Insurance), p. 16,
Exhibit D (Aristo Staffing Agreement), pp. 17 to 24,
Exhibit E (Special Terms & Conditions – FEMA contracts)

Copies of these items are attached hereto and incorporated herein by this reference as if fully set forth herein.

The term of this Agreement shall commence on the 21st day of September, 2021, and shall, unless terminated or renewed as elsewhere provided in the Agreement, terminate on the 31st day of December, 2021

The general purpose or objective of this Agreement is to provide funding for administrative oversight of operations at Whatcom County's COVID-19 Isolation and Quarantine Facility as more fully and definitively described in Exhibit A hereto. The language of Exhibit A controls in case of any conflict between it and that provided here.

The maximum consideration for the initial term of this agreement is estimated at \$200,000. The Contract Number, set forth above, shall be included on all billings or correspondence in connection therewith.

Contractor acknowledges and by signing this contract agrees that the Indemnification provisions set forth in Paragraphs 11.1, 21.1, 30.1, 31.2, 32.1, 34.2, and 34.3, if included, are totally and fully part of this contract and have been mutually negotiated by the parties.

Each person signing this Contract represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Contract.

IN WITNESS WHEREOF, the parties have executed this Agreement on:

CONTRACTOR:

Aristo Healthcare Services
4500 9th Avenue NE
Seattle, WA 98105

Each signatory below to this Contract warrants that he/she is the authorized agent of the respective party; and that he/she has the authority to enter into the contract and to bind the party thereto.

Chris Singh

WHATCOM COUNTY:
Recommended for Approval:

Sue Sullivan, Environmental Health Manager Date

Erika Lautenbach, Director Date

Approved as to form:

Royce Buckingham, Prosecuting Attorney Date

Approved:
Accepted for Whatcom County:

By: _____
Satpal Singh Sidhu, Whatcom County Executive

CONTRACTOR INFORMATION:

Aristo Healthcare Services
Chris Singh
4500 9th Ave NE
Seattle, WA 98105
206-717-5156
chrisea@aristohealthcareservices.com

GENERAL CONDITIONS

Series 00-09: Provisions Related to Scope and Nature of Services

0.1 Scope of Services:

The Contractor agrees to provide to the County services and any materials as set forth in the project narrative identified as Exhibit "A", during the agreement period. No material, labor, or facilities will be furnished by the County, unless otherwise provided for in the Agreement.

Series 10-19: Provisions Related to Term and Termination

10.1 Term:

Services provided by Contractor prior to or after the term of this contract shall be performed at the expense of Contractor and are not compensable under this contract unless both parties hereto agree to such provision in writing. The term of this Agreement may be extended by mutual agreement of the parties; provided, however, that the Agreement is in writing and signed by both parties.

10.2 Extension:

The duration of this Agreement may be extended by mutual written consent of the parties, for a period of up to one year, and for a total of no longer than three years. The County will provide a thirty-day written notification of any proposed extension.

11.1 Termination for Default:

If the Contractor defaults by failing to perform any of the obligations of the contract or becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency or makes an assignment for the benefit of creditors, the County may, by depositing written notice to the Contractor in the U.S. mail, first class postage prepaid, terminate the contract, and at the County's option, obtain performance of the work elsewhere. Termination shall be effective upon Contractor's receipt of the written notice, or within three (3) days of the mailing of the notice, whichever occurs first. If the contract is terminated for default, the Contractor shall not be entitled to receive any further payments under the contract until all work called for has been fully performed. Any extra cost or damage to the County resulting from such default(s) shall be deducted from any money due or coming due to the Contractor. The Contractor shall bear any extra expenses incurred by the County in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the County by reason of such default.

11.2 Termination for Reduction in Funding:

In the event that funding from State, Federal or other sources is withdrawn, reduced, or limited in any way after the effective date of this Agreement, and prior to its normal completion, the County may summarily terminate this Agreement as to the funds withdrawn, reduced, or limited, notwithstanding any other termination provisions of this Agreement. If the level of funding withdrawn, reduced or limited is so great that the County deems that the continuation of the programs covered by this Agreement is no longer in the best interest of the County, the County may summarily terminate this Agreement in whole, notwithstanding any other termination provisions of this Agreement. Termination under this section shall be effective upon receipt of written notice as specified herein, or within three days of the mailing of the notice, whichever occurs first.

11.3 Termination for Public Convenience:

The County may terminate the Agreement in whole or in part whenever the County determines, in its sole discretion, that such termination is in the interests of the County. Whenever the Agreement is terminated in accordance with this paragraph, the Contractor shall be entitled to payment for actual work performed at unit contract prices for completed items of work. An equitable adjustment in the contract price for partially completed items of work will be made, but such adjustment shall not include provision for loss of anticipated profit on deleted or uncompleted work. Termination of this Agreement by the County at any time during the term, whether for default or convenience, shall not constitute breach of contract by the County.

Series 20-29: Provisions Related to Consideration and Payments

20.1 Accounting and Payment for Contractor Services:

Payment to the Contractor for services rendered under this Agreement shall be as set forth in Exhibit "B." Where Exhibit "B" requires payments by the County, payment shall be based upon written claims supported, unless otherwise provided in Exhibit "B," by documentation of units of work actually performed and amounts earned, including, where appropriate, the actual number of days worked each month, total number of hours for the month, and the total dollar payment requested, so as to comply with municipal auditing requirements.

Unless specifically stated in Exhibit "B" or approved in writing in advance by the official executing this Agreement for the County or his designee (hereinafter referred to as the "Administrative Officer") the County will not reimburse the Contractor for any costs or expenses incurred by the Contractor in the performance of this contract. Where required, the County shall, upon receipt of appropriate documentation, compensate the

Contractor, no more often than monthly, in accordance with the County's customary procedures, pursuant to the fee schedule set forth in Exhibit "B."

21.1 Taxes:

The Contractor understands and acknowledges that the County will not withhold Federal or State income taxes. Where required by State or Federal law, the Contractor authorizes the County to withhold for any taxes other than income taxes (i.e., Medicare). All compensation received by the Contractor will be reported to the Internal Revenue Service at the end of the calendar year in accordance with the applicable IRS regulations. It is the responsibility of the Contractor to make the necessary estimated tax payments throughout the year, if any, and the Contractor is solely liable for any tax obligation arising from the Contractor's performance of this Agreement. The Contractor hereby agrees to indemnify the County against any demand to pay taxes arising from the Contractor's failure to pay taxes on compensation earned pursuant to this Agreement.

The County will pay sales and use taxes imposed on goods or services acquired hereunder as required by law. The Contractor must pay all other taxes, including, but not limited to, Business and Occupation Tax, taxes based on the Contractor's gross or net income, or personal property to which the County does not hold title. The County is exempt from Federal Excise Tax.

22.1 Withholding Payment:

In the event the County's Administrative Officer determines that the Contractor has failed to perform any obligation under this Agreement within the times set forth in this Agreement, then the County may withhold from amounts otherwise due and payable to Contractor the amount determined by the County as necessary to cure the default, until the Administrative Officer determines that such failure to perform has been cured. Withholding under this clause shall not be deemed a breach entitling Contractor to termination or damages, provided that the County promptly gives notice in writing to the Contractor of the nature of the default or failure to perform, and in no case more than 10 days after it determines to withhold amounts otherwise due. A determination of the Administrative Officer set forth in a notice to the Contractor of the action required and/or the amount required to cure any alleged failure to perform shall be deemed conclusive, except to the extent that the Contractor acts within the times and in strict accord with the provisions of the Disputes clause of this Agreement. The County may act in accordance with any determination of the Administrative Officer which has become conclusive under this clause, without prejudice to any other remedy under the Agreement, to take all or any of the following actions: (1) cure any failure or default, (2) to pay any amount so required to be paid and to charge the same to the account of the Contractor, (3) to set off any amount so paid or incurred from amounts due or to become due the Contractor. In the event the Contractor obtains relief upon a claim under the Disputes clause, no penalty or damages shall accrue to Contractor by reason of good faith withholding by the County under this clause.

23.1 Labor Standards:

The Contractor agrees to comply with all applicable state and federal requirements, including but not limited to those pertaining to payment of wages and working conditions, in accordance with RCW 39.12.040, the Prevailing Wage Act; the Americans with Disabilities Act of 1990; the Davis-Bacon Act; and the Contract Work Hours and Safety Standards Act providing for weekly payment of prevailing wages, minimum overtime pay, and providing that no laborer or mechanic shall be required to work in surroundings or under conditions which are unsanitary, hazardous, or dangerous to health and safety as determined by regulations promulgated by the Federal Secretary of Labor and the State of Washington.

Series 30-39: Provisions Related to Administration of Agreement

30.1 Independent Contractor:

The Contractor's services shall be furnished by the Contractor as an independent contractor, and nothing herein contained shall be construed to create a relationship of employer-employee or master-servant, but all payments made hereunder and all services performed shall be made and performed pursuant to this Agreement by the Contractor as an independent contractor.

The Contractor acknowledges that the entire compensation for this Agreement is specified in Exhibit "B" and the Contractor is not entitled to any benefits including, but not limited to: vacation pay, holiday pay, sick leave pay, medical, dental, or other insurance benefits, or any other rights or privileges afforded to employees of the County. The Contractor represents that he/she/it maintains a separate place of business, serves clients other than the County, will report all income and expense accrued under this contract to the Internal Revenue Service, and has a tax account with the State of Washington Department of Revenue for payment of all sales and use and Business and Occupation taxes collected by the State of Washington.

Contractor will defend, indemnify and hold harmless the County, its officers, agents or employees from any loss or expense, including, but not limited to, settlements, judgments, setoffs, attorneys' fees or costs incurred by reason of claims or demands because of breach of the provisions of this paragraph

30.2 Assignment and Subcontracting:

The performance of all activities contemplated by this agreement shall be accomplished by the Contractor. No portion of this contract may be assigned or subcontracted to any other individual, firm or entity without the express and prior written approval of the County.

30.3 No Guarantee of Employment:

The performance of all or part of this contract by the Contractor shall not operate to vest any employment rights whatsoever and shall not be deemed to guarantee any employment of the Contractor or any employee of the Contractor or any subcontractor or any employee of any subcontractor by the County at the present time or in the future.

31.1 Ownership of Items Produced and Public Records Act:

All writings, programs, data, public records or other materials prepared by the Contractor and/or its consultants or subcontractors, in connection with performance of this Agreement, shall be the sole and absolute property of the County. If the Contractor creates any copyrightable materials or invents any patentable property, the Contractor may copyright or patent the same, but the County retains a royalty-free, nonexclusive and irrevocable license to reproduce, publish, recover, or otherwise use the materials or property and to authorize other governments to use the same for state or local governmental purposes. Contractor further agrees to make research, notes, and other work products produced in the performance of this Agreement available to the County upon request.

Ownership. Any and all data, writings, programs, public records, reports, analyses, documents, photographs, pamphlets, plans, specifications, surveys, films or any other materials created, prepared, produced, constructed, assembled, made, performed or otherwise produced by the Contractor or the Contractor's subcontractors or consultants for delivery to the County under this Contract shall be the sole and absolute property of the County. Such property shall constitute "work made for hire" as defined by the U.S. Copyright Act of 1976, 17 U.S.C. § 101, and the ownership of the copyright and any other intellectual property rights in such property shall vest in the County at the time of its creation. Ownership of the intellectual property includes the right to copyright, patent, and register, and the ability to transfer these rights. Material which the Contractor uses to perform this Contract but is not created, prepared, constructed, assembled, made, performed or otherwise produced for or paid for by the County is owned by the Contractor and is not "work made for hire" within the terms of this Agreement.

Public Records Act. This Contract and all records associated with this Contract shall be available for inspection and copying by the public where required by the Public Records Act, Chapter 42.56 RCW (the "Act"). To the extent that public records then in the custody of the Contractor are needed for the County to respond to a request under the Act, as determined by the County, the Contractor agrees to make them promptly available to the County at no cost to the County. If the Contractor considers any portion of any record provided to the County under this Agreement, whether in electronic or hard copy form, to be protected from disclosure under law, the Contractor shall clearly identify any specific information that it claims to be confidential or proprietary. If the County receives a request under the Act to inspect or copy the information so identified by the Contractor and the County determines that release of the information is required by the Act or otherwise appropriate, the County's sole obligations shall be to notify the Contractor (a) of the request and (b) of the date that such information will be released to the requester unless the Contractor obtains a court order to enjoin that disclosure pursuant to RCW 42.56.540. If the Contractor fails to timely obtain a court order enjoining disclosure, the County will release the requested information on the date specified.

The County has, and by this section assumes, no obligation on behalf of the Contractor to claim any exemption from disclosure under the Act. The County shall not be liable to the Contractor for releasing records not clearly identified by the Contractor as confidential or proprietary. The County shall not be liable to the Contractor for any records that the County releases in compliance with this section or in compliance with an order of a court of competent jurisdiction.

The Contractor shall be liable to the requester for any and all fees, costs, penalties or damages imposed or alleged as a result of the Contractor's failure to provide adequate or timely records.

This provision and the obligations it establishes shall remain in effect after the expiration of this contract.

31.2 Patent/Copyright Infringement:

Contractor will defend and indemnify the County from any claimed action, cause or demand brought against the County, to the extent such action is based on the claim that information supplied by the Contractor infringes any patent or copyright. The Contractor will pay those costs and damages attributable to any such claims that are finally awarded against the County in any action. Such defense and payments are conditioned upon the following:

A. The Contractor shall be notified promptly in writing by the County of any notice of such claim.

B. Contractor shall have the right, hereunder, at its option and expense, to obtain for the County the right to continue using the information, in the event such claim of infringement, is made, provided no reduction in performance or loss results to the County.

32.1 Confidentiality:

The Contractor, its employees, subcontractors, and their employees shall maintain the confidentiality of all information provided by the County or acquired by the Contractor in performance of this Agreement, except upon the prior written consent of the County or an order entered by a court after having acquired jurisdiction over the County. Contractor shall immediately give to the County notice of any judicial proceeding seeking disclosure of such information. Contractor shall indemnify and hold harmless the County, its officials, agents or employees from all loss or expense, including, but not limited to, settlements, judgments, setoffs, attorneys' fees and costs resulting from Contractor's breach of this provision.

33.1 Right to Review:

This contract is subject to review by any Federal, State or County auditor. The County or its designee shall have the right to review and monitor the financial and service components of this program by whatever means are deemed expedient by the Administrative Officer or by the County Auditor's Office. Such review may occur with or without notice and may include, but is not limited to, on-site inspection by County agents or employees, inspection of all records or other materials which the County deems pertinent to the Agreement and its performance, and any and all communications with or evaluations by service recipients under this Agreement. The Contractor shall preserve and maintain all financial records and records relating to the performance of work under this Agreement for three (3) years after contract termination, and shall make them available for such review, within Whatcom County, State of Washington, upon request. Contractor also agrees to notify the Administrative Officer in advance of any inspections, audits, or program review by any individual, agency, or governmental unit whose purpose is to review the services provided within the terms of this Agreement. If no advance notice is given to the Contractor, then the Contractor agrees to notify the Administrative Officer as soon as it is practical.

34.1 Insurance:

The Contractor shall, at its own expense, obtain and continuously maintain the following insurance coverage for the duration of this contract, which shall include insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, subcontractors or employees. All insurers providing such insurance shall have an A.M. Best Rating of not less than A- (or otherwise be acceptable to the County) and be licensed to do business in the State of Washington and admitted by the Washington State Insurance Commissioner. Coverage limits shall be the minimum limits identified in this Contract or the coverage limits provided or available under the policies maintained by the Contractor without regard to this Contract, whichever are greater.

1. Commercial General Liability

Property Damage	\$500,000.00, per occurrence
General Liability & bodily injury	\$1,000,000.00, per occurrence
Annual Aggregate	\$2,000,000.00

At least as broad as ISO form CG 00 01 or the equivalent, which coverage shall include personal injury, bodily injury and property damage for Premises Operations, Products and Completed Operations, Personal/Advertising Injury, Contractual Liability, Independent Contractor Liability, medical payments and Stop Gap/Employer's Liability. Coverage shall not exclude or contain sub-limits less than the minimum limits required, unless approved in writing by the County.

3. Business Automobile Liability

\$1,000,000.00	Minimum, per occurrence
\$2,000,000.00	Minimum, Annual Aggregate

Contractor shall provide auto liability coverage for owned, non-owned and hired autos using ISO Business Auto Coverage form CA 00 01 or the exact equivalent with a limit of no less than \$1,000,000 per accident. If Contractor owns no vehicles this requirement may be met through a non-owned auto Endorsement to the CGL policy.

4. Additional Insurance Requirements and Provisions

- a. All insurance policies shall provide coverage on an occurrence basis.
- b. Additional Insureds. Whatcom County, its departments, elected and appointed officials, employees, agents and volunteers shall be included as additional insureds on Contractor's and Contractor's subcontractors' insurance policies by way of endorsement for the full available limits of insurance required in this contract or maintained by the Contractor and subcontractor, whichever is greater.
- c. Primary and Non-contributory Insurance. Contractor shall provide primary insurance coverage and the County's insurance shall be non-contributory. Any insurance, self-insured retention, deductible, risk retention or insurance pooling maintained or participated in by the County shall be excess and non-contributory to Contractor's insurance.
- d. Waiver of Subrogation. The insurance policy shall provide a waiver of subrogation with respect to each insurance policy maintained under this Contract. When required by an insurer, or if a policy condition does not permit Contractor to enter into a pre-loss agreement to waive subrogation without an endorsement, then Contractor agrees to notify the insurer and obtain such endorsement. This requirement shall not apply to any policy which includes a condition expressly prohibiting waiver of subrogation by the insured or which voids coverage should the Contractor enter into such a waiver of subrogation on a pre-loss basis.
- e. Review of and Revision of Policy Provisions. Upon request, the Contractor shall provide a full and complete certified copy of all requested insurance policies to the County. The County reserves the right, but not the obligation, to revise any insurance requirement, including but not limited to limits, coverages and endorsements, or to reject any insurance policies which fail to meet

the requirements of this Contract. Additionally, the County reserves the right, but not the obligation, to review and reject any proposed insurer providing coverage based upon the insurer's financial condition or licensing status in Washington.

- f. **Verification of Coverage/Certificates and Endorsements.** The Contractor shall furnish the County with a certificate of insurance and endorsements required by this contract. The certificates and endorsements for each policy shall be signed by a person authorized by the insurer to bind coverage on its behalf. The certificate and endorsements for each insurance policy are to be on forms approved by the County prior to commencement of activities associated with the contract. The certificate and endorsements, and renewals thereof, shall be attached hereto as Exhibit "C". If Exhibit C is not attached, the Contractor must submit the certificate and endorsements required in this contract to the County prior to the commencement of any work on the contracted project. A certificate alone is insufficient proof of the required insurance; endorsements must be included with the certificate. The certificate of insurance must reflect the insurance required in this contract, including appropriate limits, insurance coverage dates, per occurrence, and in the description of operations, include the County project, Whatcom County, its departments, officials, employees, agents and volunteers as additional insureds, primary, non-contributory, and waiver of subrogation.
- g. The County must be notified immediately in writing of any cancellation of the policy, exhaustion of aggregate limits, notice of intent not to renew insurance coverage, expiration of policy or change in insurer carrier. Contractor shall always provide the County with a current copy of the certificate and endorsements throughout the duration of the contract.
- h. **No Limitation on Liability.** The insurance maintained under this Contract shall not in any manner limit the liability or qualify the liabilities or obligations of the Contractor to the coverage provided by such insurance, or otherwise limit the County's recourse to any remedy available at law or equity.
- i. **Payment Conditioned on Insurance and Failure to Maintain Insurance.** Compensation and/or payments due to the Contractor under this Contract are expressly conditioned upon the Contractor's compliance with all insurance requirements. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract. Payment to the Contractor may be suspended in the event of non-compliance, upon which the County may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the County on demand or offset against funds due the Contractor. Upon receipt of evidence of Contractor's compliance, payments not otherwise subject to withholding or set-off will be released to the Contractor.
- j. **Workers' Compensation.** The Contractor shall maintain Workers' Compensation coverage as required under the Washington State Industrial Insurance Act, RCW Title 51, for all Contractors' employees, agents and volunteers eligible for such coverage under the Industrial Insurance Act.
- k. Failure of the Contractor to take out and/or maintain required insurance shall not relieve the Contractor or subcontractors from any liability under the contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations concerning indemnification. The County does not waive any insurance requirements even in the event the certificate or endorsements provided by the Contractor were insufficient or inadequate proof of coverage but not objected to by the County. The County's failure to confirm adequate proof of insurance requirements does not constitute a waiver of the Contractor's insurance requirements under this Contract.
- l. **Availability of Contractor Limits.** If the Contractor maintains higher insurance limits than the minimums shown above, the County shall be insured for the full available limits, including Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this contract or whether any certificate furnished to the County evidences limits of liability lower than those maintained by the Contractor.
- m. **Insurance for Subcontractors.** If the Contractor subcontracts (if permitted in the contract) any portion of this Contract, the Contractor shall include all subcontractors as insureds under its policies or shall require separate certificates of insurance and policy endorsements from each subcontractor. Insurance coverages by subcontractors must comply with the insurance requirements of the Contractor in this contract and shall be subject to all of the requirements stated herein, including naming the County as additional insured.
- n. The Contractor agrees Contractor's insurance obligation shall survive the completion or termination of this Contract for a minimum period of three years.

34.3 Defense & Indemnity Agreement. To the fullest extent permitted by law, the Contractor agrees to indemnify, defend and hold the County and its departments, elected and appointed officials, employees, agents and volunteers, harmless from and against any and all claims, damages, losses and expenses, including but not limited to court costs, attorney's fees, and alternative dispute resolution costs, for any personal injury,

for any bodily injury, sickness, disease, or death and for any damage to or destruction of any property (including the loss of use resulting therefrom) which: 1) are caused in whole or in part by any error, act or omission, negligent or otherwise, of the Contractor, its employees, agents or volunteers or Contractor's subcontractors and their employees, agents or volunteers; or 2) directly or indirectly arise out of or occur in connection with performance of this Contract or 3) are based upon the Contractor's or its subcontractors' use of, presence upon, or proximity to the property of the County. This indemnification obligation of the Contractor shall not apply in the limited circumstance where the claim, damage, loss, or expense is caused by the sole negligence of the County.

Should a court of competent jurisdiction determine that this contract is subject to RCW 4.24.115, then in the event of concurrent negligence of the Contractor, its subcontractors, employees or agents, and the County, its employees or agents, this indemnification obligation of the Contractor shall be valid and enforceable only to the extent of the negligence of the Contractor, its subcontractors, employees, and agents. This indemnification obligation of the Contractor shall not be limited in any way by the Washington State Industrial Insurance Act, RCW Title 51, or by application of any other workmen's compensation act, disability benefit act or other employee benefit act, and the Contractor hereby expressly waives any immunity afforded by such acts.

It is further provided that no liability shall attach to the County by reason of entering into this contract, except as expressly provided herein. The parties specifically agree that this Contract is for the benefit of the parties only and this Contract shall create no rights in any third party. The County reserves the right, but not the obligation, to participate in the defense of any claim, damages, losses, or expenses, and such participation shall not constitute a waiver of Contractor's indemnity obligations under this Agreement.

In the event the Contractor enters into subcontracts to the extent allowed under this Contract, the Contractor's subcontractors shall indemnify the County on a basis equal to or exceeding Contractor's indemnity obligations to the County. The Contractor shall pay all attorney's fees and expenses incurred by the County in establishing and enforcing the County's rights under this indemnification provision, whether or not suit was instituted.

The Contractor agrees all Contractor's indemnity obligations shall survive the completion, expiration or termination of this Agreement. The foregoing indemnification obligations of the Contractor are a material inducement to County to enter into this Agreement and are reflected in the Contractor's compensation.

By signing this contract, the Contractor acknowledges that it has freely negotiated and agreed to the indemnification requirements to defend, indemnify and hold harmless the County from all claims and suits including those brought against the County by the Contractor's own employees, arising from this contract.

35.1 Non-Discrimination in Employment:

The County's policy is to provide equal opportunity in all terms, conditions and privileges of employment for all qualified applicants and employees without regard to race, color, creed, religion, national origin, sex, sexual orientation (including gender identity), age, marital status, disability, or veteran status. The Contractor shall comply with all laws prohibiting discrimination against any employee or applicant for employment on the grounds of race, color, creed, religion, national origin, sex, sexual orientation (including gender identity), age, marital status, disability, political affiliation, or veteran status, except where such constitutes a bona fide occupational qualification.

Furthermore, in those cases in which the Contractor is governed by such laws, the Contractor shall take affirmative action to insure that applicants are employed, and treated during employment, without regard to their race, color, creed, religion, national origin, sex, age, marital status, sexual orientation (including gender identity), disability, or veteran status, except where such constitutes a bona fide occupational qualification. Such action shall include, but not be limited to: advertising, hiring, promotions, layoffs or terminations, rate of pay or other forms of compensation benefits, selection for training including apprenticeship, and participation in recreational and educational activities. In all solicitations or advertisements for employees placed by them or on their behalf, the Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

The foregoing provisions shall also be binding upon any subcontractor, provided that the foregoing provision shall not apply to contracts or subcontractors for standard commercial supplies or raw materials, or to sole proprietorships with no employees.

35.2 Non-Discrimination in Client Services:

The Contractor shall not discriminate on the grounds of race, color, creed, religion, national origin, sex, age, marital status, sexual orientation (including gender identity), disability, or veteran status; or deny an individual or business any service or benefits under this Agreement unless otherwise allowed by applicable law; or subject an individual or business to segregation or separate treatment in any manner related to his/her/its receipt any service or services or other benefits provided under this Agreement unless otherwise allowed by applicable law; or deny an individual or business an opportunity to participate in any program provided by this Agreement unless otherwise allowed by applicable law.

36.1 Waiver of Noncompetition:

Contractor irrevocably waives any existing rights which it may have, by contract or otherwise, to require another person or corporation to refrain from submitting a proposal to or performing work or providing supplies to the County, and contractor further promises that it will not in the future, directly or indirectly, induce or solicit any person or corporation to refrain from submitting a bid or proposal to or from performing work or providing supplies to the County.

36.2 Conflict of Interest:

If at any time prior to commencement of, or during the term of this Agreement, Contractor or any of its employees involved in the performance of this Agreement shall have or develop an interest in the subject matter of this Agreement that is potentially in conflict with the County's interest, then Contractor shall immediately notify the County of the same. The notification of the County shall be made with sufficient specificity to enable the County to make an informed judgment as to whether or not the County's interest may be compromised in any manner by the existence of the conflict, actual or potential. Thereafter, the County may require the Contractor to take reasonable steps to remove the conflict of interest. The County may also terminate this contract according to the provisions herein for termination.

37.1 Administration of Contract:

This Agreement shall be subject to all laws, rules, and regulations of the United States of America, the State of Washington, and political subdivisions of the State of Washington. The Contractor also agrees to comply with applicable federal, state, county or municipal standards for licensing, certification and operation of facilities and programs, and accreditation and licensing of individuals.

The County hereby appoints, and the Contractor hereby accepts, the Whatcom County Executive, and his or her designee, as the County's representative, hereinafter referred to as the Administrative Officer, for the purposes of administering the provisions of this Agreement, including the County's right to receive and act on all reports and documents, and any auditing performed by the County related to this Agreement. The Administrative Officer for purposes of this agreement is:

Sue Sullivan, Environmental Health Manager
Whatcom County Health Department

37.2 Notice:

Any notices or communications required or permitted to be given by this Contract must be (i) given in writing and (ii) personally delivered or mailed, by prepaid, certified mail or overnight courier, or transmitted by electronic mail transmission (including PDF), to the party to whom such notice or communication is directed, to the mailing address or regularly-monitored electronic mail address of such party as follows:

Sue Sullivan, Environmental Health Manager
Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225
360-778-6026
SSullivan@co.whatcom.wa.us

Chris Singh
Aristo Healthcare Services
4500 9th Ave NE
Seattle, WA 98105
206-717-5156
chrisea@aristohealthcareservices.com

Any such notice or communication shall be deemed to have been given on (i) the day such notice or communication is personally delivered, (ii) three (3) days after such notice or communication is mailed by prepaid certified or registered mail, (iii) one (1) working day after such notice or communication is sent by overnight courier, or (iv) the day such notice or communication is sent electronically, provided that the sender has received a confirmation of such electronic transmission. A party may, for purposes of this Agreement, change his, her or its address, email address or the person to whom a notice or other communication is marked to the attention of, by giving notice of such change to the other party pursuant to this Section.

37.3 If agreed by the parties, this Contract may be executed by Email transmission and PDF signature and Email transmission and PDF signature shall constitute an original for all purposes.

38.1 Certification of Public Works Contractor's Status under State Law:

If applicable, Contractor certifies that it has fully met the responsibility criteria required of public works contractors under RCW 39.04.350 (1), which include: (a) having a certificate of registration in compliance with RCW 18.27; (b) having a current state unified business identifier number; (c) if applicable, having industrial insurance coverage for its employees working in Washington as required in Title 51 RCW, an employment security department number as required in Title 50 RCW, and a state excise tax registration number as required in Title 82 RCW; and (d) not being disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

- 38.2 Certification Regarding Federal Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions:
If applicable, the Contractor further certifies, by executing this contract, that neither it nor its principles is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or Agency.

The Contractor also agrees that it shall not knowingly enter into any lower tier covered transactions (a transaction between the Contractor and any other person) with a person who is proposed for debarment, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, and the Contractor agrees to include this clause titled "Certification Regarding Federal Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction" without modification, in all lower tier covered transactions and in all solicitations for lower tier transactions.

The "Excluded Parties List System in the System for Award Management (SAM) website is available to research this information at WWW.SAM.GOV. Contractor shall immediately notify Whatcom County if, during the term of this Contract, Contractor becomes debarred.

- 38.3 E-Verify:
The E-Verify contractor program for Whatcom County applies to contracts of \$100,000 or more and sub contracts for \$25,000 or more if the primary contract is for \$100,000 or more. If applicable, Contractor represents and warrants that it will, for at least the duration of this contract, register and participate in the status verification system for all newly hired employees. The term "employee" as used herein means any person that is hired to perform work for Whatcom County. As used herein, "status verification system" means the Illegal Immigration Reform and Immigration Responsibility Act of 1996 that is operated by the United States Department of Homeland Security, also known as the E-Verify Program, or any other successor electronic verification system replacing the E-Verify Program. Contractor/Seller agrees to maintain records of such compliance and, upon request of the County, to provide a copy of each such verification to the County. Contractor/Seller further represents and warrants that any person assigned to perform services hereunder meets the employment eligibility requirements of all immigration laws of the State of Washington. Contractor/Seller understands and agrees that any breach of these warranties may subject Contractor/Seller to the following: (a) termination of this Agreement and ineligibility for any Whatcom County contract for up to three (3) years, with notice of such cancellation/termination being made public. In the event of such termination/cancellation, Contractor/Seller would also be liable for any additional costs incurred by the County due to contract cancellation or loss of license or permit." Contractor will review and enroll in the E-Verify program through this website: www.uscis.gov

Series 40-49: Provisions Related to Interpretation of Agreement and Resolution of Disputes

- 40.1 Modifications:
Either party may request changes in the Agreement. Any and all agreed modifications, to be valid and binding upon either party, shall be in writing and signed by both of the parties.
- 40.2 Contractor Commitments, Warranties and Representations:
Any written commitment received from the Contractor concerning this Agreement shall be binding upon the Contractor, unless otherwise specifically provided herein with reference to this paragraph. Failure of the Contractor to fulfill such a commitment shall render the Contractor liable for damages to the County. A commitment includes, but is not limited to, any representation made prior to execution of this Agreement, whether or not incorporated elsewhere herein by reference, as to performance of services or equipment, prices or options for future acquisition to remain in effect for a fixed period, or warranties.
- 41.1 Severability:
If any term or condition of this contract or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this contract are declared severable.
- 41.2 Waiver:
Waiver of any breach or condition of this contract shall not be deemed a waiver of any prior or subsequent breach. No term or condition of this contract shall be held to be waived, modified or deleted except by an instrument, in writing, signed by the parties hereto. The failure of the County to insist upon strict performance of any of the covenants and agreements of this Agreement, or to exercise any option herein conferred in any one or more instances, shall not be construed to be a waiver or relinquishment of any such, or any other covenants or agreements, but the same shall be and remain in full force and effect.
- 42.1 Disputes:
- a. General:
Differences between the Contractor and the County, arising under and by virtue of the Contract Documents, shall be brought to the attention of the County at the earliest possible time in order that such matters may be settled or other appropriate action promptly taken. Except for such objections as are made of record in the manner hereinafter specified and within the time limits stated, the records, orders, rulings, instructions, and decisions of the Administrative Officer shall be final and conclusive.
 - b. Notice of Potential Claims:

The Contractor shall not be entitled to additional compensation which otherwise may be payable, or to extension of time for (1) any act or failure to act by the Administrative Officer or the County, or (2) the happening of any event or occurrence, unless the Contractor has given the County a written Notice of Potential Claim within ten (10) days of the commencement of the act, failure, or event giving rise to the claim, and before final payment by the County. The written Notice of Potential Claim shall set forth the reasons for which the Contractor believes additional compensation or extension of time is due, the nature of the cost involved, and insofar as possible, the amount of the potential claim. Contractor shall keep full and complete daily records of the work performed, labor and material used, and all costs and additional time claimed to be additional.

c. **Detailed Claim:**

The Contractor shall not be entitled to claim any such additional compensation, or extension of time, unless within thirty (30) days of the accomplishment of the portion of the work from which the claim arose, and before final payment by the County, the Contractor has given the County a detailed written statement of each element of cost or other compensation requested and of all elements of additional time required, and copies of any supporting documents evidencing the amount or the extension of time claimed to be due.

d. **Arbitration:**

Other than claims for injunctive relief, temporary restraining order, or other provisional remedy to preserve the status quo or prevent irreparable harm, brought by a party hereto (which may be brought either in court or pursuant to this arbitration provision), and consistent with the provisions hereinabove, any claim, dispute or controversy between the parties under, arising out of, or related to this Contract or otherwise, including issues of specific performance, shall be determined by arbitration in Bellingham, Washington, under the applicable American Arbitration Association (AAA) rules in effect on the date hereof, as modified by this Agreement. There shall be one arbitrator selected by the parties within ten (10) days of the arbitration demand, or if not, by the AAA or any other group having similar credentials. Any issue about whether a claim is covered by this Contract shall be determined by the arbitrator. The arbitrator shall apply substantive law and may award injunctive relief, equitable relief (including specific performance), or any other remedy available from a judge but shall not have the power to award punitive damages. Each Party shall pay all their own costs, attorney fees and expenses of arbitration and the parties shall share equally in the Arbitrator's fees and costs. The decision of the arbitrator shall be final and binding and an order confirming the award or judgment upon the award may be entered in any court having jurisdiction. The parties agree that the decision of the arbitrator shall be the sole and exclusive remedy between them regarding any dispute presented or pled before the arbitrator. At the request of either party made not later than forty-five (45) days after the arbitration demand, the parties agree to submit the dispute to nonbinding mediation, which shall not delay the arbitration hearing date; provided, that either party may decline to mediate and proceed with arbitration.

Any arbitration proceeding commenced to enforce or interpret this Contract shall be brought within six years after the initial occurrence giving rise to the claim, dispute, or issue for which arbitration is commenced, regardless of the date of discovery or whether the claim, dispute, or issue was continuing in nature. Claims, disputes, or issues arising more than six years prior to a written request or demand for arbitration issued under this Contract are not subject to arbitration.

- e. The parties may agree in writing signed by both parties that a claim or dispute may be brought in Whatcom County Superior Court rather than mediation or arbitration.

Unless otherwise specified herein, this Contract shall be governed by the laws of Whatcom County and the State of Washington.

43.1 **Venue and Choice of Law:**

In the event that any litigation should arise concerning the construction or interpretation of any of the terms of this Agreement, the venue of such action of litigation shall be in the courts of the State of Washington in and for the County of Whatcom. This Agreement shall be governed by the laws of the State of Washington.

44.1 **Survival:**

The provisions of paragraphs 11.1, 11.2, 11.3, 21.1, 22.1, 30.1, 31.1, 31.2, 32.1, 33.1, 34.2, 34.3, 36.1, 40.2, 41.2, 42.1, and 43.1, if utilized, shall survive, notwithstanding the termination or invalidity of this Agreement for any reason.

45.1 **Entire Agreement:**

This written Agreement, comprised of the writings signed or otherwise identified and attached hereto, represents the entire Agreement between the parties and supersedes any prior oral statements, discussions or understandings between the parties.

EXHIBIT "A"
(SCOPE OF WORK)

I. Background

During the COVID-19 pandemic, it is necessary for Whatcom County to implement actions that will mitigate the spread of the disease and provide basic services in support of public health for the community at large. In order to respond to people in need of isolation and quarantine, who have no other options to accomplish such, Whatcom County opened a COVID-19 Isolation and Quarantine Facility (Facility). Since March of 2020, Lighthouse Mission and SeaMar Community Health Centers have provided on-site support to ensure operational, social distance, and public health related concerns are addressed at the Facility, however, both agencies will end their services at the Facility on 9/30/2021. Road2Home will assume administrative oversight of daily operations at the Facility but need time for transition and staffing planning.

Aristo Healthcare Services (Aristo) provides temporary, per-diem, temp-to-hire and contract staffing services. This contract provides funding for Aristo to immediately fill the staffing gap at the Facility during the transition from Lighthouse Mission and SeaMar Community Health Services to Road2Home, as the contracted Facility operator. Accordingly, Aristo Healthcare Services, LLC will provide immediate, supplemental staffing of the Facility, as set forth below.

II. Statement of Work

Facility staff provided by Aristo will include a Site Supervisor and support staff, supported by Road2Home, who will provide guidance and consultation as necessary.

All support staff must hold one or more of the following licenses and/or certifications:

- Home Care Aide - HM
- Health Care Assistant - HCA
- Certified Nursing Assistant - CNA
- Nursing Assistant Registered - NAR
- Medical Assistant Certified – MA-C
- Medical Assistant Registered – MA-R
- Community Health Worker – CHW
- Social Worker – SW

All Site Supervisors must hold one or more of the following licenses and/or certifications:

- Registered Nurse – RN
- Licensed Practical Nurse – LPN
- Licensed Independent Clinical Social Worker – LICSW
- CMA – Certified Medical Assistant

The Supervisor will develop staffing schedules and provide on-site guidance to staff. As needed, the Supervisor will consult with Road2Home on best practices for managing daily staff activities as well as any concerns or issues that may arise.

Personal protective equipment and other infection-control practices will be employed at all times, as necessary. The County will provide infection control guidelines for use by all staff at the Facility.

Aristo shall assume no responsibility or liability for the Facility, which shall be the sole and exclusive responsibility of the County.

Security services will be on-site and will be provided by a separate, private firm.

The County or the owner of the motel housing units will be responsible for general repairs and maintenance as well as providing for utility services.

Following are duties expected to be provided by on-site Aristo personnel, but are not inclusive and may be altered as programming requires. These tasks are intended to ensure the functioning of the daily operations of the Facility. It is not

expected that Aristo staff will provide any hands-on assistance with guests, but instead support guests with the following activities.

1. Assist with delivery and pick-up of daily meals to Facility.
2. Assist with linen exchanges and laundry services to Facility.
3. Assist with directing regular waste disposal from each housing unit.
4. Prepare vacant rooms that have been cleaned and sanitized for the next guest by making beds and providing towels and toiletries.
5. Assist with communication connections between guests and their healthcare providers if a resident is unable to accomplish this independently.
6. Guide and direct guests on appropriate behaviors that promote sufficient social distancing, isolation, quarantine, hygiene, and sanitation.
7. Assist with on-site services that may include sanitation of housing units upon discharge of a resident, security practices and concerns, on-site healthcare provision, and access/egress of the property/facility.
8. Assist coordination with guests to access help for housing unit issues that may include Wi-Fi access, repairs and maintenance, or communications problems that may arise.
9. Assist Road2Home with scheduling of on-site staff at the Facility, as necessary.

EXHIBIT "B"

COMPENSATION

- I. **Source of Funding:** Funding for this contract is estimated at \$200,000. Funds under the contract are made available by a grant awarded by FEMA.

The Contractor will bill the County in accordance with the rates indicated on the following page – Aristo Healthcare Services, LLC Crisis Rates.

Reimbursement requests for allowable travel (including mileage) must include name of staff member, dates of travel, starting point and destination, and a brief description of purpose. Ground transportation, coach airfare and ferries will be reimbursed at cost when accompanied by receipts. Lodging and meal costs for training are not to exceed the U.S. GSA Domestic Per Diem Rates (www.gsa.gov), specific to location and must follow federal guidelines. Receipts for meals are not required.

II. **Invoicing:**

1. The Contractor shall submit itemized invoices by location on a monthly basis in a format approved by the County. Invoices must include timesheets and receipts, if applicable. The Contract number shall be included on all billings or correspondence. **Final invoices must be submitted by January 7, 2022.**
2. The Contractor shall submit invoices to HL-BusinessOffice@co.whatcom.wa.us.
3. Payment by the County will be considered timely if it is made within 30 days of the receipt and acceptance of billing information from the Contractor. The County may withhold payment of an invoice if the Contractor submits it more than 30 days after the expiration of this contract.
4. Invoices must include the following statement, with an authorized signature and date:
I certify that the materials have been furnished, the services rendered, or the labor has been performed, as described on this invoice.
5. **Duplication of Billed Costs or Payments for Service:** The Contractor shall not bill the County for services performed or provided under this contract and the County shall not pay the Contractor, if the Contractor has been or will be paid by any other source, including grants, for those costs used to perform or provide the services in this contract. The Contractor is responsible for any audit exceptions or disallowed amounts paid as a result of this contract.



Aristo Healthcare Services, LLC Crisis Rates

Active patient care engagement at Isolation/Quarantine sites High-risk Exposure Category (Potential COVID -19 Exposure)		
Position Description	Billable Rate	
Site Supervisor	150\$/hr	
Shelter Support Staff	100\$/hr	

Our goal is not just to provide Healthcare staff but also to prevent spread of COVID-19 from personnel to people in the community, so a plan to house all staff at specific locations.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html>

Personnel exposed to COVID-19 Symptoms may appear **2-14 days after exposure** (based on the incubation period of MERS-CoV viruses) <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

- Transportation expenses for travel staff (Flights/Mileage Reimbursement)
- The rate is time and half after 40 hours per week of Billable rate.
- Reimbursement for Accommodation at a local Hotel for all agency workers (Allowing to prevent spread from care of patients)
- 2 Week Self Quarantine pay after end of Assignment or as per instructions from County Physician/Public health authorities or facility's occupational health program prior to end of assignment. COVID-exposure measures described are only taken if there is a confirmed exposure.

CLIENT

ARISTO HEALTHCARE SERVICES

Signature

Signature

Printed Name

Printed Name

Title

Title

Date

Date

Aristo Healthcare Services
4500 9th Ave NE, Seattle,
Washington 98105, United States
(206) 456-2463 Office
(206) 717 -5156 Business Line
(206) 326-0155 Cell

EXHIBIT "C"
(CERTIFICATE OF INSURANCE)

"Exhibit D"
(ARISTO STAFFING AGREEMENT)



Staffing Agreement

ARISTO HEALTHCARE SERVICES ("Staffing Firm"), with its principal office located at 4500 9th Avenue NE, Seattle, WA 98105, and Whatcom County, ("CLIENT") with its principal office located at 509 Girard Street - Bellingham, WA 98225 agree to the terms and conditions set forth in this Staffing Agreement (the "Agreement").

ARISTO HEALTHCARE SERVICES's Duties and Responsibilities

1. ARISTO HEALTHCARE SERVICES will

- a. Recruit, screen, interview, and assign its employees ("Assigned Employees") to perform the type of work described under CLIENT's supervision at the locations specified;
- b. Pay Assigned Employees' wages and provide them with any benefits that ARISTO HEALTHCARE SERVICES offers to them;
- c. Pay, withhold, and transmit payroll taxes; provide unemployment insurance and workers' compensation benefits; and handle unemployment and workers' compensation claims involving Assigned Employees;
- d. Inform Assigned Employees that they are not entitled to holidays, vacations, disability benefits, insurance, pensions, or retirement plans, or any other benefits offered or provided by CLIENT;

CLIENT's Duties and Responsibilities

2. CLIENT will

- a. Properly supervise Assigned Employees performing its work and be responsible for its business operations, products, services, and intellectual property;
- b. Properly supervise, control, and safeguard its premises, processes, or systems, and not permit Assigned Employees to operate any vehicle or mobile equipment, or entrust them with unattended premises, cash, checks, keys, credit cards, merchandise, confidential or trade secret information, negotiable instruments, or other valuables without ARISTO HEALTHCARE SERVICES's express prior written approval or as strictly required by the job description provided to ARISTO HEALTHCARE SERVICES;
- c. Provide Assigned Employees with a safe work site and provide appropriate information, training, and safety equipment with respect to any hazardous substances or conditions to which they may be exposed at the work site;
- d. Not change Assigned Employees' job duties without ARISTO HEALTHCARE SERVICES's express prior written approval; and



- e. Exclude Assigned Employees from CLIENT's benefit plans, policies, and practices, and not make any offer or promise relating to Assigned Employees' compensation or benefits.

Payment Terms, Bill Rates, and Fees

3. CLIENT will pay ARISTO HEALTHCARE SERVICES for its performance at the rates set forth on Exhibit B and will also pay any additional costs or fees set forth in this Agreement. ARISTO HEALTHCARE SERVICES will invoice CLIENT for services provided under this Agreement on a weekly basis. Payment is due on receipt of invoice. Invoices not paid within 30 days from receipt of the invoice will be considered past-due. Past-due invoices will be charged a fee of 1.5% per month until paid. Invoices will be supported by the pertinent time sheets or other agreed system for documenting time worked by the Assigned Employees. CLIENT's signature or other agreed method of approval of the work time submitted for Assigned Employees certifies that the documented hours are correct and authorizes ARISTO HEALTHCARE SERVICES to bill CLIENT for those hours. If a portion of any invoice is disputed, CLIENT will pay the undisputed portion.
4. Assigned Employees are presumed to be nonexempt from laws requiring premium pay for overtime, holiday work, or weekend work. ARISTO HEALTHCARE SERVICES will charge CLIENT special rates for premium work time only when an Assigned Employee's work on assignment to CLIENT, viewed by itself, would legally require premium pay and CLIENT has authorized, directed, or allowed the Assigned Employee to work such premium work time. CLIENT's special billing rate for premium hours will be the same multiple of the regular billing rate as ARISTO HEALTHCARE SERVICES is required to apply to the Assigned Employee's regular pay rate. (For example, when federal law requires 150% of pay for work exceeding 40 hours in a week, CLIENT will be billed at 150% of the regular bill rate.)
5. If CLIENT uses the services of any Assigned Employee as its direct employee, as an independent contractor, or through any person or firm other than ARISTO HEALTHCARE SERVICES during or within 180 days after any assignment of the Assigned Employee to CLIENT from ARISTO HEALTHCARE SERVICES, CLIENT must notify ARISTO HEALTHCARE SERVICES and
 - (a) Continue the Assigned Employee's assignment from ARISTO HEALTHCARE SERVICES for his or her next 1040 consecutive work hours for CLIENT; or
 - (b) Pay ARISTO HEALTHCARE SERVICES a fee in the amount of 15% of the final Annual billing rate for that Assigned Employee, or \$13,500, whichever is higher.
6. In addition to the bill rates specified with this Agreement, CLIENT will pay STAFFING FIRM the amount of all new or increased labor costs associated with CLIENT's Assigned Employees that ARISTO HEALTHCARE SERVICES is legally required to pay—such as wages, benefits, payroll taxes, social program contributions, or charges linked to benefit levels—until the parties agree on new bill rates.

**Cooperation**

7. The parties agree to cooperate fully and to provide assistance to the other party in the investigation and resolution of any complaints, claims, actions, or proceedings that may be brought by or that may involve Assigned Employees.

Background Checks

ARISTO HEALTHCARE SERVICES will perform the required Background/qualification checks for all employees which it selects for assignment to CLIENT and will not assign unqualified personnel to CLIENT

On-Site Coordinator

ARISTO HEALTHCARE SERVICES will be represented at CLIENT's premises by an On-Site Coordinator. CLIENT will have the continuing right to reasonably disapprove of the person designated for this role by ARISTO HEALTHCARE SERVICES and/or to require a suitable replacement. ARISTO HEALTHCARE SERVICES will also arrange for substitutes to cover the On-Site Coordinator's material absences during CLIENT's business or other operational hours. CLIENT will provide the On-Site Coordinator with the necessary office space, furnishings, and other resources as the parties may agree on from time to time.

ARISTO HEALTHCARE SERVICES ensures that the Assigned Employees that ARISTO HEALTHCARE SERVICES recruits and assigns to CLIENT will have the qualifications CLIENT requests. If CLIENT finds any Assigned Employee's qualifications or general work-related behavior lacking and lets ARISTO HEALTHCARE SERVICES know within 48 Hours, ARISTO HEALTHCARE SERVICES will make reasonable efforts to replace the Assigned Employee immediately.

I

**CLIENT-Recruited Employees**

Assigned Employees are also CLIENT-Recruited Employees when, by prior arrangement with ARISTO HEALTHCARE SERVICES, CLIENT recruits or otherwise identifies personnel whose services it needs and refers them to ARISTO HEALTHCARE SERVICES, there to be employed and assigned back to CLIENT.

Conversion Workout Period; Credit for Past Service

However, under option (a), the length of the required assignment continuation will be reduced by the Assigned Employee's pre-notice work hours within the previous year for which CLIENT has paid or for which CLIENT has not yet been billed.

Minimum Hours per Day

If CLIENT limits an Assigned Employee's work day to fewer than 4 hours, ARISTO HEALTHCARE SERVICES may deem that day to include 4 hours of time worked and may bill CLIENT 4 hours if ARISTO HEALTHCARE SERVICES pays the Assigned Employee for the 4 hours, same applied to subsequent 4 hours thereafter.

Cancellation policy

Client will pay minimum of 4 Hours pay to the agency if client cancel the employee's shift before 8 hours of start of shift and anytime thereafter before shift starts.

Late Payment Penalty

CLIENT agrees to pay net upon receipt of invoice and to pay interest on any unpaid balances after 7 days from the date of receipt at the compounded rate of 1.5 % per day or the maximum legal rate, whichever is higher, calculated from the date of receipt.

No Staff Hire-away; Fee

CLIENT and ARISTO HEALTHCARE SERVICES agree not to directly or indirectly employ or engage as an independent contractor any staff employee of the other party during the term of this Agreement and for a period of 12 Months thereafter without the prior written consent of the other party. Any party violating this paragraph will pay to the other party a fee in the amount of 15% of the employee's annualized compensation with the new employer.

Nature of Relationship

The services that ARISTO HEALTHCARE SERVICES will render to CLIENT under this Agreement will be as an independent contractor. Nothing contained in this Agreement will be construed to create the relationship of principal and agent, or employer and employee, between ARISTO HEALTHCARE SERVICES and CLIENT.

Headings

The headings of the paragraphs of this Agreement are inserted solely for the convenience of reference. They will in no way define, limit, extend, or aid in the construction of the scope, extent, or intent of this Agreement.



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**Contract Interpretation**

The rule of construction that ambiguities in an agreement are to be construed against the drafter will not be invoked or applied in any dispute regarding the meaning of any provision of this Agreement.

Choice of Law

This agreement will be governed by and construed in accordance with the laws of the state of Washington, without reference to any conflicts of law principles thereof.

Assignment of Agreement

CLIENT shall not transfer or assign this Agreement without the written consent of ARISTO HEALTHCARE SERVICES, and any attempted assignment without such consent shall immediately terminate this Agreement.

Authorized representatives of the parties have executed this Agreement below to express the parties' agreement to its terms.

Whatcom County

CLIENT

ARISTO HEALTHCARE SERVICES

Signature

Erika Lautenbach

Signature

Printed Name

Director

Printed Name

Title

Title

Date

Date



**Aristo Healthcare Services,
LLC**

4500 9th Ave NE
Seattle, WA 98105
P: (206) 717-5156
M: (206) 326-0155

We are proud to be an Equal
Employment Opportunity and Affirmative
Action employer, including females,
minorities, protected Veterans, and
those with disability.

CAPABILITY STATEMENT

Aristo Healthcare Services, LLC is a reputable staffing firm conveniently located in Seattle, Washington. Serving as the access point for employee placement and government contracts, Aristo is committed to providing top-quality direct hire, temp-to-hire, and temporary services. From entry-level to upper-level management, the company specializes in office and administrative positions in a variety of industries.

Core Competencies

- Permanent-Direct Hire placements.
- Short to long term (1 year) temporary candidates.
- Background checks, employment verification and references
- Last minute candidates for temporary positions and direct hire interviews.
- Contract (1099) employees and payrolled employees.

COVID -19 Response engagements

- Isolation & Quarantine Facility
- Covid Vaccine Enrolled Provider
- Assist Covid Testing efforts
- Multiple Mass Vaccination Sites
- WAIS Data Entry

For additional information about Aristo Healthcare Services, LLC's capabilities, please contact our office at **(206) 717-5156** or email us at hr@aristohcs.com. Visit our website at www.aristohealthcareservices.com to learn more.

Company Information

TIN: 82-3749437

UBI: 604 203 196

DUNS: 115181494

CAGE Code: 8NRB5

WA Statewide Vendor # SWV0263678-00

NAICS Codes:

561320 Temporary Help Services (Primary)

561110 Office Administrative Services

561311 Employment Placement Agencies

561499 All Other Business Support Services

Business References

- Tacoma Pierce County Disaster and Emergency Management
- Telecare Behavioral Health
- King County Covid Response Isolation and Quarantine sites
- Brookdale Senior
/ Assisted living
- Seattle School
District
- Federal Way
schools

“Exhibit E”
(Special Terms and Conditions for FEMA Funded Contracts)

The terms included in this agreement and any additional agreements herein are a result of the grant funding requirements.

1. AUDIT

Contractor shall maintain internal controls providing reasonable assurance it is managing federal awards in compliance with laws, regulations, and provisions of contracts or grant agreements that could have a material effect on each of its federal programs.

If the Contractor is a subrecipient and expends \$750,000 or more in federal awards from any and/or all sources in any fiscal year, the Contractor shall procure and pay for a single audit or a program-specific audit for that fiscal year.

2. LAWS

The Contractor shall comply with all applicable laws, ordinances, codes, regulations, and policies of local, state, and federal governments, as now or hereafter amended, including, but not limited to:

United States Laws, Regulations and Circulars (Federal)

(Subrecipients only) Contractor shall comply with Uniform Administrative Requirements, Cost Principles, and Audit Requirement for Federal Award, 2 CFR 200.

(Subrecipients only) Contractor shall comply with the applicable requirements of 2 CFR Part 200, including any future amendments to 2 CFR Part 200, and any successor or replacement Office of Management and Budget (OMB) Circular or regulation.

3. RECORDS MAINTENANCE

The Contractor shall maintain books, records, documents, data and other evidence relating to this contract and performance of the services described herein, including but not limited to accounting procedures and practices that sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this contract.

The Contractor shall retain such records for a period of six (6) years following the date of final payment.

If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

4. COMPLIANCE WITH THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

- a. *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- b. *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

- c. *Withholding for unpaid wages and liquidated damages.* The Contractor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

5. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

a. Clean Air Act

The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. The contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to the Washington State Military Department, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

b. Federal Water Pollution Control Act

The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. The contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to the Washington State Military Department, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

5. BYRD ANTI-LOBBYING AGREEMENT

Contractors who apply or bid for an award of more than \$100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency."

"APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress,

an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure."

The Contractor, Aristo Healthcare Services, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date"



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-614

File ID:	AB2021-614	Version:	1	Status:	Agenda Ready
File Created:	10/22/2021	Entered by:	JThomson@co.whatcom.wa.us		
Department:	Health Department	File Type:	Contract		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: JHayden@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into a contract amendment between Whatcom County and Maul Foster & Alongi, Inc. to finalize the Comprehensive Solid and Hazardous Waste Management Plan update in the amount of \$20,000 for a total amended contract amount of \$133,000

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attachments

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Staff Memo, Proposed Amendment



MEMORANDUM

TO: Satpal Sidhu, County Executive

FROM: Erika Lautenbach, Director

RE: Maul Foster & Alongi, Inc. – Comprehensive Solid and Hazardous Waste Management Plan Contract Amendment #2

DATE: October 22, 2021

Attached is a contract amendment between Whatcom County and Maul Foster & Alongi, Inc. for your review and signature.

▪ **Background and Purpose**

As per RCW 70.A.205.040, *Comprehensive Solid Waste Management Plan*, the 2016 *Whatcom County Comprehensive Solid and Hazardous Waste Management Plan* is required to be updated every five years. This contract provides funding for the Plan update which was started within the required 5-year period. Whatcom County has made a good faith effort towards the completion of the plan update and has kept the Department of Ecology updated on the progress.

The purpose of this amendment is to extend the contract for an additional year and increase funding by \$20,000 to support costs involved with finalizing the Plan which were not included in the original contract. Finalizing the plan includes facilitation of a 60-day public comment period, incorporating comments from the public, Department of Ecology, Utilities and Transportation Commission, and the State Environmental Policy Act, attending Solid Waste Advisory Committee Meetings where the Plan will be commented on or approved, and preparing and submitting to the Health Department a final draft plan.

▪ **Funding Amount and Source**

Funding for this contract, in an amount not to exceed \$133,000, is provided by the Solid Waste Fund. These funds are included in the 2021-2022 budgets. Council approval is required as the additional funding provided by this amendment exceeds 10% of the approved budget.

Please contact Sue Sullivan, Environmental Health Manager at 360-778-6026 (SSullivan@co.whatcom.wa.us) or Kathleen Roy, Assistant Director at 360-778-6007 (KRoy@co.whatcom.wa.us), if you have any questions or concerns regarding this request.



**WHATCOM COUNTY
CONTRACT INFORMATION SHEET**

Whatcom County Contract Number:
202010012 – 2

Originating Department:		85 Health	
Division/Program: (i.e. Dept. Division and Program)		8540 Environmental Health / 854085 Solid Waste	
Contract or Grant Administrator:		Jennifer Hayden	
Contractor's / Agency Name:		Maul Foster & Alongi, Inc.	

Is this a New Contract?	If not, is this an Amendment or Renewal to an Existing Contract?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #:	202010012	

Does contract require Council Approval?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If No, include WCC:
Already approved? Council Approved Date:		(Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)

Is this a grant agreement?	If yes, grantor agency contract number(s):	CFDA#:	
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Is this contract grant funded?	If yes, Whatcom County grant contract number(s):		
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Is this contract the result of a RFP or Bid process?	If yes, RFP and Bid number(s):	Contract Cost Center:	140100
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	20-11		

Is this agreement excluded from E-Verify?	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>	
---	---	--

If YES, indicate exclusion(s) below:

<input checked="" type="checkbox"/> Professional services agreement for certified/licensed professional.	
<input type="checkbox"/> Contract work is for less than \$100,000.	<input type="checkbox"/> Contract for Commercial off the shelf items (COTS).
<input type="checkbox"/> Contract work is for less than 120 days.	<input type="checkbox"/> Work related subcontract less than \$25,000.
<input type="checkbox"/> Interlocal Agreement (between Governments).	<input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.

Contract Amount:(sum of original contract amount and any prior amendments):	<p>Council approval required for; all property leases, contracts or bid awards exceeding \$40,000, and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when:</p> <ol style="list-style-type: none"> 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.
\$ 113,000	
This Amendment Amount:	
\$ 20,000	
Total Amended Amount:	
\$ 133,000	

Summary of Scope: This contract provides funding to update the Comprehensive Solid and Hazardous Waste Management Plan, as required by the Washington State Department of Ecology.

Term of Contract:	26 Months	Expiration Date:	12/31/2022
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Contract Routing:	1. Prepared by:	JT	Date:	09/14/2021
	2. Health Budget Approval	KR/JG	Date:	10/19/2021
	3. Attorney signoff:	RB	Date:	10/22/2021
	4. AS Finance reviewed:	M Caldwell	Date:	10/20/21
	5. IT reviewed (if IT related):		Date:	
	6. Contractor signed:		Date:	
	7. Executive Contract Review:		Date:	
	8. Council approved (if necessary):	AB2021-614	Date:	
	9. Executive signed:		Date:	
	10. Original to Council:		Date:	

WHATCOM COUNTY CONTRACT AMENDMENT

PARTIES:

Whatcom County
Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225

AND CONTRACTOR:
Maul Foster & Alongi, Inc.
3140 NE Broadway Street
Portland, OR 97232

CONTRACT PERIODS:

Original: 10/14/2020 – 12/31/2021
Amendment #1: 01/01/2021 – 12/31/2021
Amendment #2: 12/01/2021 – 12/31/2022

THE CONTRACT IDENTIFIED HEREIN, INCLUDING ANY PREVIOUS AMENDMENTS THERETO, IS HEREBY AMENDED AS SET FORTH IN THE DESCRIPTION OF THE AMENDMENT BELOW BY MUTUAL CONSENT OF ALL PARTIES HERETO

DESCRIPTION OF AMENDMENT:

1. Extend the contract through 12/31/2022.
2. Amend Exhibit A – Scope of Work, to include Task 7 – Finalize Plan.
3. Amend Exhibit B – Compensation, to increase funding by \$20,000 to support Task 7.
4. Funding for the total contract period (10/14/2020 – 12/31/2022) is not to exceed \$133,000.
5. All other terms and conditions remain unchanged.
6. The effective start date of the amendment is 12/01/2021.

ALL OTHER TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND ANY PREVIOUS AMENDMENTS THERETO REMAIN IN FULL FORCE AND EFFECT. ALL PARTIES IDENTIFIED AS AFFECTED BY THIS AMENDMENT HEREBY ACKNOWLEDGE AND ACCEPT THE TERMS AND CONDITIONS OF THIS AMENDMENT. Each signatory below to this Contract warrants that he/she is the authorized agent of the respective party; and that he/she has the authority to enter into the contract and bind the party thereto.

APPROVAL AS TO PROGRAM: _____
Sue Sullivan, Environmental Health Manager Date

DEPARTMENT HEAD APPROVAL: _____
Erika Lautenbach, Health Department Director Date

APPROVAL AS TO FORM: _____
Royce Buckingham, Prosecuting Attorney Date

FOR THE CONTRACTOR:

Ted Wall, PE – Vice President

_____	_____	_____
Contractor Signature	Print Name and Title	Date

FOR WHATCOM COUNTY:

_____	_____
Satpal Singh Sidhu, County Executive	Date

CONTRACTOR INFORMATION:

Maul Foster & Alongi, Inc.
3140 NE Broadway Street
Portland, OR 97232
971-544-2139
twall@maulfoster.com

EXHIBIT "A" – Amendment #2
(SCOPE OF WORK)

Maul Foster & Alongi, Inc. (Contractor) will assist Whatcom County (County) in completing a comprehensive revision to the Whatcom County Comprehensive Solid and Hazardous Waste Management Plan (CSHWMP), incorporating all elements required under RCW 70.95.090. Work to be performed and associated deliverables to be provided are defined under the following tasks:

Task 1 – Visionary Process

The Contractor will assist the County in initial project scoping, including preparing a project management and communications plan. A kickoff meeting with County staff will further define the priority issues and topics on which the CSHWMP should focus. The Contractor will also prepare a project management and communications plan that meets the expectations of County staff, the Solid Waste Advisory Committee (SWAC), the local solid waste management community, the public, and other key stakeholders. Through a visioning meeting, the Contractor will work with the County and the SWAC to develop a guiding vision and schedule for the Plan that meet Ecology's Guidelines and the required Plan elements as described in RCW 70.95.090. The updated plan will maintain the County's current flexibility in programs, goals, and objectives and provide the county service area with an implementable plan for achieving identified solid waste management goals. During this time, MFA will also initiate discussion with the Ecology program manager regarding the proposed objectives for the Plan update and to ensure that the planning process considers the current objectives of the state.

Task 1 Meetings & Deliverables:

- a. County/Contractor Kickoff/Visioning Meeting - SWAC
- b. Memorandum summarizing priority issues and vision, schedule, and outline for the unified CSHWMP
- c. Project Management and Communications Plan
- d. Memorandum of likely modifications to 2016 programmatic and facility objectives
- e. Meeting minutes

Task 2 – Background Research

The Contractor will review the information presented in the existing Plan, taking into account the information gathered in Task 1. The Contractor will also evaluate what elements of the Washington State Beyond Waste Plan should be considered by the SWAC for local implementation. The Contractor will also review state policies governing solid waste management that have been enacted since the 2016 update, such as the required Recycling (Contamination Reduction Outreach Plan (CROP).

The Contractor will access website information and interview County staff and solid waste industry representatives to update the system description and information contained in the Plan chapters. Interviews will also seek to understand the local changes or trends in collection, recycling, transfer, and disposal systems.

The Contractor will work with Ecology, County staff, local waste haulers, and other solid waste system operators to obtain information necessary for developing the description of the size of the waste stream, defining reuse and recycling operations, and providing a basis for projecting the growth of the waste stream into the future. The Contractor will coordinate with County staff throughout the data-gathering effort to allow for efficiencies in time and cost by taking advantage of the staff's familiarity and access to critical data sources. The Contractor will also review the Whatcom County Comprehensive Plan to supplement demographic information or relevant growth goals.

Task 2 Deliverables:

- a. Memorandum of waste system description, statistics (material types and volumes), and regional demographics

Task 3 – Preliminary Analysis

The Contractor will start with a detailed analysis of the goals stated in the 2016 Plan and the information that is developed in Tasks 1 and 2. MFA will work with the County and SWAC to develop criteria to evaluate planning options and revisit the principles of sustainability and Beyond Waste considerations within the decision framework.

The Contractor will then work with County staff and a subcommittee of the SWAC in a detailed evaluation of the status of the goals and actions that were recommended in the 2016 Plan. The detailed review will focus on identifying in-progress or completed, actions that are not leading to the desired outcome, or new implementable actions that are needed to support a stated goal. The Contractor will collaborate with the subcommittee members in developing effective approaches in support of a goal, based on industry experience and local knowledge. An updated table of goals and supporting actions will be forwarded to the full SWAC for consideration in the Plan update. The SWAC-approved goals and actions will be used to guide the update of the Plan sections discussed in Task 4.

Because of the time commitment involved and the need for a working knowledge of the solid waste situation, a subcommittee should be formed. The evaluation of progress on the 216 goals and actions will be completed on a compressed schedule, potentially one meeting every other week, to allow completion of the recommended goals and actions by the January 2021 SWAC meeting.

Task 3 Meetings & Deliverables:

- a. Three subcommittee meetings (Goals/Actions Evaluation)
- b. January 2021 SWAC (Goals/Actions Review)
- c. Updated recommendations tables describing program goals and proposed actions
- d. Planning tool summarizing goals, actions, and implementation schedule, including project objectives and decision-making criteria to meet County and state objectives

Task 4 – Plan Update

Building on the information developed in the preceding three tasks, the Contractor will review and update the text describing each of the solid waste topics contained in the 2016 Plan. The Plan update will maintain the streamlined description of system components developed by MFA in the 2016 Plan, which made the document more accessible to the public while still maintaining compliance with Ecology guidelines. For each section, the Contractor will provide redline/strikeout edits to text, goals, actions, and policies. Tables and maps will be replaced with updated files.

Building on the waste stream data and population projections that are gathered in Task 2, the Contractor will prepare an updated waste stream characterization in addition to projections for the six and 20-year planning periods required in accordance with the guidelines. The waste stream information will be available to support the discussions concerning recycling, organic materials, solid waste collection, and transfer and disposal, so that the impact of

recommended actions can be considered with respect to the ability of the system to meet future needs. The update will discuss current trends in collection, recycling, transfer and disposal systems and will make suitable recommendations in support of the system goals. Moderate-risk waste, special waste, administration, and enforcement will also be updated to reflect current conditions. Throughout the update process, the Contractor will strive to maintain a clear, reader-friendly format of the 2016 Plan.

The Contractor will also update the appendices of the Plan, including the solid waste handling facilities list, the compliance checklist, the State Environmental Policy Act (SEPA) checklist, and the newly revised Washington Utilities and Transportation Commission (WUTC) cost assessment questionnaire.

Preliminary drafts of individual sections and appendices will be submitted for the solid waste manager's review. After content is confirmed and comments are addressed, draft sections will be submitted for SWAC's review. In order to meet the contract timeline, the Contractor will facilitate a single discussion of the edits at the April SWAC meeting. Revised chapters will be provided to the SWAC, and the Solid Waste Executive Committee (SWEC), for approval to submit the document for Ecology review by the July 2021 SWAC meeting.

In order to satisfy a new regulation (RCW 70.95.090(10)), Ecology has implemented a new requirement for solid waste management plans (and CSHWMPs) to include a Recycling CROP by July 1, 2021. Counties that are revising their SWWMPs/CSHWMPs are encouraged to incorporate their CROPs into the revised plan as a chapter or appendix.

Task 4 Meetings & Deliverables:

- a. April 2021 SWAC Draft Plan Review
- b. July 2021 SWAC Revised Plan Approval for Submittal to Ecology
- c. Updated sections and appendices of the Plan, with changes in redline/strikeout format (preliminary, draft, and revised draft)
- d. Final sections and appendices of the Plan, with all edits resolved for review by Ecology
- e. If desired by the County, incorporation of the County's Recycling CROP in the CSHWMP

Task 5 – Public and Agency Participation Process

The Contractor will work under the direction of County staff to ensure that all applicable materials are made available for review and comment with the appropriate agencies. The Contractor will take the lead in preparing for and facilitating all public meetings and events, including the component of the regular SWAC meetings in which the Plan update is reviewed. The Contractor will utilize the skills of their in-house communications staff to guide the presentation of effective presentation materials.

Public participation in the plan development process can typically be facilitated and documented by advertising SWAC meetings in which the Plan content is being discussed. Additionally, public hearings or the presentation of the updated Plan to the Solid Waste Commission provides an additional opportunity to receive public comment.

Task 5 Meetings & Deliverables:

- a. July SWEC Plan Review
- b. Coordination of document review agency
- c. Plan update presentation materials for public meetings
- d. Facilitation of public meetings to discuss and collect comment on the Plan update

Task 6 – Preparation of Documents

Before it can be adopted, the Plan will require review and/or approval from state and local agencies. Several state agencies request an informal or preliminary review of the draft Plan, including Ecology, WUTC, and the Washington State Department of Agriculture; 120 days are allowed for the review. The Plan must also undergo SEPA review (typically led by the County planning department). These reviews may impact the timeline and eventual outcomes of the Plan and should be taken into account at the project onset.

As stated in Task 4, the Contractor will prepare an update of the existing SEPA document and Non-Project Review Form. The Contractor will coordinate submittal of the Plan and SEPA documentation to the lead agency.

As a final step, the Contractor will compile the elements of the Plan into a single electronic file (.pdf). The final document will include all maps, figures, tables, and appendices that have been developed for the Plan. The County is responsible for production of print copies if desired.

Task 6 Deliverables:

- a. Complete draft Plan
- b. SEPA document and Non-Project Review Form

Task 7 – Finalize Plan

Finalizing the plan will include consolidating comments received during the public comment period, to be included in the preliminary draft submittal packet to Ecology. Upon completion of Ecology's preliminary review, the contractor will prepare a document incorporating all comments received by Ecology, the public, SEPA and the UTC for the solid waste manager's review. The contractor will incorporate relevant comments, prepare, and submit a final draft of the plan. The contractor will also prepare a summary of responses to each comment received by the County, which is required to be included with the final plan submittal packet.

Task 7 Deliverables:

- a. Complete the UTC Form
- b. After 60-day public comment period, format comments to submit to the Department of Ecology along with preliminary draft plan
- c. After preliminary draft plan is returned with comments from the Department of Ecology, incorporate relevant comments from Ecology, public, UTC, and SEPA
- d. Attend SWAC meetings where the plan will be commented on or approved
- e. Prepare final draft for submittal to the Department of Ecology

EXHIBIT "B" – Amendment #2 COMPENSATION

- I. **Budget and Source of Funding:** Funding for this contract is provided by the Solid Waste Fund in an amount not to exceed \$133,000. The budget for this contract is as follows:

Task		Hours	Labor	Direct	Total Budget
1	Visionary Process	57	\$8,700	\$0	\$8,700
2	Background Research	150	\$21,960	\$400	\$22,360
3	Preliminary Analysis	124	\$18,150	\$160	\$18,310
4	Plan Update	322	\$47,360	\$200	\$47,560
5	Public & Agency Participation Process	44	\$7,240	\$0	\$7,240
6	Preparation of Documents	66	\$8,830	\$0	\$8,830
7	Finalize Plan	136	\$19,600	\$400	\$20,000
TOTAL					\$133,000

*The contractor may transfer funds between line items with written approval by the County Contract Administrator

Project Staff	Billing Rates/Hour
Project Manager/Senior Planner	\$180
Staff Engineer	\$130
Principal Engineer	\$200
Senior Geologist	\$165
Senior GIS Analyst	\$140
Admin/Editor	\$90

II. Invoicing

- The Contractor shall submit itemized invoices on a monthly basis in a format approved by the County. Monthly invoices must be submitted by the 15th of the month following the month of service. Invoices submitted for payment must include hours worked by employee by day together with tasks accomplished. Any work performed prior to the effective date of this contract or continuing after the completion date of the same unless otherwise agreed upon in writing, will be at the contractor's expense.
- The Contractor shall submit invoices to (include contract/PO #) HL-BusinessOffice@co.whatcom.wa.us.
- Payment by the County will be considered timely if it is made within 30 days of the receipt and acceptance of billing information from Contractor. The County may withhold payment of an invoice if the Contractor submits it more than 30 days after the expiration of this contract.
- Invoices must include the following statement, with an authorized signature and date:
I certify that the materials have been furnished, the services rendered, or the labor performed as described on this invoice.
- Duplication of Billed Costs or Payments for Service: The Contractor shall not bill the County for services performed or provided under this contract, and the County shall not pay the Contractor, if the Contractor has been or will be paid by any other source, including grants, for those costs used to perform or provide the services in this contract. The Contractor is responsible for any audit exceptions or disallowed amounts paid as a result of this contract.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-615

File ID:	AB2021-615	Version:	1	Status:	Agenda Ready
File Created:	10/22/2021	Entered by:	JThomson@co.whatcom.wa.us		
Department:	Health Department	File Type:	Interlocal		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: PMowery@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and City of Bellingham for partial funding of maintenance and operations of the Crisis Stabilization Center, in the amount of \$65,000

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attachments

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Agreement



MEMORANDUM

TO: Satpal Sidhu, County Executive
FROM: Erika Lautenbach, Director
RE: City of Bellingham – Crisis Stabilization Center Operation & Maintenance Agreement
DATE: October 22, 2021

Attached is an Interlocal Agreement between Whatcom County and City of Bellingham for your review and signature.

- **Background and Purpose**

This Agreement provides funding for all aspects of the ongoing maintenance and operation of the Crisis Stabilization Center. Whatcom County will lease the facility located at 2026 Division Street in Bellingham, to treatment providers who offer behavioral health treatment on site, 24 hours daily, seven days weekly. Services provided at this facility are intended to assist adults who are experiencing a behavioral health crisis and who can be managed successfully in this setting. These services are also intended to divert individuals when appropriate, from hospital utilization, arrest, or incarceration.

- **Funding Amount and Source**

This Agreement provides partial funding in the amount of \$65,000 for all aspects of the ongoing maintenance and operation of the Crisis Stabilization Center. These funds will be included in the 2022 budget. Council approval is required per RCW 39.34.030(2) for agreements between public agencies.

- **Differences from Previous Agreement**

This is a new Agreement, however, funding to support the operation and maintenance of the Crisis Stabilization Center (and the former County Triage Facility) has been provided by the City of Bellingham since 1998. This new Agreement includes no significant changes from the current Agreement (WC Contract #202010118).

Please contact Perry Mowery, Human Services Supervisor at 360-778-6059 (PMowery@co.whatcom.wa.us) or Kathleen Roy, Assistant Director at 360-778-6007 (KRoy@co.whatcom.wa.us), if you have any questions or concerns regarding this request.



WHATCOM COUNTY CONTRACT INFORMATION SHEET				Whatcom County Contract No. _____	
Originating Department:			85 Health		
Division/Program: (i.e. Dept. Division and Program)			8550 Human Services / 855020 Mental Health		
Contract or Grant Administrator:			Perry Mowery		
Contractor's / Agency Name:			City of Bellingham		
Is this a New Contract?		If not, is this an Amendment or Renewal to an Existing Contract?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #:			
Does contract require Council Approval?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If No, include WCC: _____	
Already approved? Council Approved Date:		(Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)			
Is this a grant agreement?		If yes, grantor agency contract number(s):		CFDA#:	
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>				
Is this contract grant funded?		If yes, Whatcom County grant contract number(s):			
Yes <input type="checkbox"/>	No <input type="checkbox"/>				
Is this contract the result of a RFP or Bid process?		Contract Cost Center:		124116	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, RFP and Bid number(s):			
Is this agreement excluded from E-Verify?		No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	If no, include Attachment D Contractor Declaration form.	
If YES, indicate exclusion(s) below:					
<input type="checkbox"/> Professional services agreement for certified/licensed professional.					
<input type="checkbox"/> Contract work is for less than \$100,000.			<input type="checkbox"/> Contract for Commercial off the shelf items (COTS).		
<input type="checkbox"/> Contract work is for less than 120 days.			<input type="checkbox"/> Work related subcontract less than \$25,000.		
<input checked="" type="checkbox"/> Interlocal Agreement (between Governments).			<input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.		
Contract Amount:(sum of original contract amount and any prior amendments):		Council approval required for; all property leases, contracts or bid awards exceeding \$40,000 , and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when: <ol style="list-style-type: none"> 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County. 			
\$ 65,000					
This Amendment Amount:					
\$					
Total Amended Amount:					
\$					
Summary of Scope: Under this agreement, the Contractor provides funding for ongoing maintenance and operation of the Crisis Stabilization Center located at 2026 Division Street in Bellingham.					
Term of Contract:		1 Year		Expiration Date: 12/31/2022	
Contract Routing:	1. Prepared by:		JT		Date: 10/07/2021
	2. Health Budget Approval:		KR/JG		Date: 10/19/2021
	3. Attorney signoff:		RB		Date: 10/22/2021
	4. AS Finance reviewed:		M Caldwell		Date: 10/20/21
	5. IT reviewed (if IT related):				Date:
	6. Contractor approved:				Date:
	7. Submitted to Exec.:				Date:
	8. Council approved (if necessary):		AB2021-615		Date:
	9. Executive signed:				Date:
	10. Original to Council:				Date:

**INTERLOCAL FINANCIAL ASSISTANCE AGREEMENT FOR
CRISIS INTERVENTION SERVICES
CITY OF BELLINGHAM - WHATCOM COUNTY**

The **CITY OF BELLINGHAM**, a first-class municipal corporation of the State of Washington (hereinafter the "City"), with offices at 210 Lottie Street, Bellingham, Washington 98225, and **WHATCOM COUNTY**, a political subdivision of the State of Washington, acting through the Whatcom County Health Department, (hereinafter the "Recipient"), located at 509 Girard Street, Bellingham, Washington 98225, in consideration of the mutual covenants herein, do agree as follows:

1. **PURPOSE.** This Agreement sets out the terms of financial assistance provided by the City to the Recipient to assist the latter in providing programs and services that address alcoholism and other drug addictions as further detailed in Exhibit A "Scope of Work", attached hereto and incorporated herein by this reference.
2. **TERM OF AGREEMENT.** Notwithstanding the date of execution hereof, this Agreement shall be in effect from January 1, 2022, through December 31, 2022.
3. **LIAISON.** The City's Project Manager for this Agreement is Renee Firos. The Recipient's responsible person is Perry Mowery, Human Services Supervisor.
4. **SCOPE OF WORK.** See attached Exhibit A, incorporated herein by this reference.
5. **FUNDS PROVIDED AND METHOD OF PAYMENT.**
 - A. The financial assistance provided to the Recipient shall not exceed **\$65,000**. The city's share of liquor taxes and profits in the amount of \$22,000 is included in this total and authorized in RCW 71.24.555.
 - B. The City agrees to financially assist the Recipient only for activities specified in Exhibit A. Payment shall be based on properly executed quarterly invoices. The Recipient shall submit the invoices, documentation and any necessary reports by the 15th of the month following the period being invoiced, except for January where the same will be due by the 10th of the month. The City will make payment to the Recipient no more than thirty (30) days after said reimbursement request is received and approved by the City.
6. **EXTRA WORK AND CHANGE ORDERS.** Work in addition to or different from that provided for in

the Scope of Work section shall only be allowed by prior authorization in writing, as a modification to this Agreement. Such modifications shall be attached hereto and shall be approved in the same manner as this Agreement.

7. **ACCOUNTING AND AUDIT.** The Recipient agrees to keep records of all financial matters pertaining to this Agreement in accordance with generally accepted accounting principles and to retain the same for a period of three years after termination of this Agreement. The financial records shall be made available to representatives of the City or any other governmental agency with jurisdiction for audit, at such reasonable times and places as the City shall designate.
8. **INDEMNIFICATION AND INSURANCE.** The Recipient agrees to defend the City, hold it harmless, and indemnify it as to all claims, suits, costs, fees and liability arising out of the acts or work of the Recipient, its employees, subcontractors, or agents (including field work) pursuant to this Agreement, where such liability is incurred as a result of the actions or omissions of such parties. Recipient will obtain and maintain in force adequate insurance and/or self-insurance with coverage limits sufficient to cover potential liability arising within the Scope of Work.

Recipient specifically and expressly waives any immunity that may be granted it under the Washington State Industrial Insurance Act, Title 51 RCW. Further, the indemnification obligation under this contract shall not be limited in any way by any limitation on benefits payable to or for any third party under the workers' compensation acts.

9. **COMPLIANCE WITH LAWS.** The Recipient shall comply with all applicable laws, ordinances, and codes of the local, State, and Federal governments. Recipient shall submit any and all information the City requires to demonstrate compliance with such laws, ordinances, and codes within two weeks of City's request for such information. The Recipient covenants that its employees have no interest and will not acquire interest, direct or indirect, or any other interest which would conflict in any manner or degree with the performance of services hereunder. The Recipient further covenants that in the performance of this Agreement, no person having such interest will be employed.
10. **NONDISCRIMINATION IN CLIENT SERVICES:**
The Recipient shall not, on the grounds of race, color, sex, religion, national origin, creed, marital status, age, sexual orientation, gender identity, or disability, unlawfully deny a qualified individual any facilities, financial aid, services or other benefits provided under this Agreement or otherwise deny or condition services in a manner that violates any applicable laws against discrimination. If

assignment or subcontracting has been authorized, said assignment or subcontract shall include appropriate safeguards against discrimination in client services binding upon each contractor or subcontractor. The Recipient shall take such action as may be required to ensure full compliance with the provisions of this clause, including sanctions for noncompliance.

11. TERMINATION; REDUCTION IN FUNDING.

- A. Should either party hereto believe that the other has failed to perform, or is likely to be unable to substantially perform, all or a material part of its obligations under this Agreement, it shall deliver written notice to that effect to the other, specifying the alleged default and giving the other party fifteen (15) days to cure such default. Thereafter, should the default not be remedied to the satisfaction of the non-defaulting party, this Agreement may be terminated upon seven (7) days written notice (delivered by certified mail).
- B. In the event that funding is withdrawn, reduced or limited in any way after the effective date of this Agreement due to City budgetary constraints or economic downturn resulting in reduced revenues, and prior to its normal completion, the City may summarily terminate the Agreement as to the funds withdrawn, reduced or limited notwithstanding any other termination provisions of this Agreement. If the level of funding withdrawn, reduced, or limited is so great that the City deems that the continuation of the services covered by this Agreement is no longer in the best interest of the City, the City may summarily terminate this Agreement in whole notwithstanding any other termination of this Agreement. Termination under this Section shall be effective upon receipt or written notice thereof.
- C. Termination of this Agreement shall not prevent the City from invoking those provisions herein necessary to protect or enforce its rights hereunder, which provisions shall survive termination.

12. ASSIGNMENT. Neither party shall assign or delegate any or all interests in this Agreement without first obtaining the written consent of the other party; provided, however, that the City acknowledges that the Recipient contracts with service providers to operate the crisis intervention services that are partially funded by this Agreement and the City consents to such arrangement.

13. VENUE STIPULATION. This Agreement has been and shall be considered as having been made and delivered within the State of Washington, and shall be governed by the laws of the State of Washington both as to interpretation and performance. Any action in law or equity, or judicial proceeding for the enforcement of this Agreement or any of the provisions contained therein, shall

be instituted and maintained only in Skagit County Superior Court, Washington.

- 14. STATUS OF RECIPIENT.** Neither Recipient nor personnel employed by the Recipient shall acquire any rights or status in the City's employment, nor shall they be deemed employees or agents of the City for any purpose other than as specified herein. Recipient shall be deemed an independent contractor and shall be responsible in full for payment of its employees, including worker's compensation, insurance, payroll deductions, and all related costs.

EXECUTED, this ____ day of _____, 2021, for the **WHATCOM COUNTY**:

Satpal Singh, Sidhu, Whatcom County Executive

APPROVED AS TO FORM:

Royce Buckingham, Prosecuting Attorney

Date

APPROVED AS TO PROGRAM:

Perry Mowery, Human Services Supervisor

Date

APPROVAL AS TO DEPARTMENT:

Erika Lautenbach, Director

Date

EXECUTED, this ____ day of _____, 2021, for the **CITY OF BELLINGHAM**.

Seth Fleetwood, Mayor

Attest:

Finance Director

Approved as to Form:

Office of the City Attorney

Departmental Approval:

Chief of Police
Bellingham Police Department

Exhibit A Statement of Work

I. Background:

Recipient owns the Crisis Stabilization Center located at 2026 Division Street, Bellingham, Washington. Recipient leases the facility to treatment providers who offers behavioral health treatment on-site 24 hours daily, seven days weekly. Services provided at this facility are intended to assist adults who are experiencing a behavioral health crisis, and who can be managed successfully in this setting. These services are also intended to divert individuals when appropriate, from hospital utilization, arrest or incarceration.

Services provided at the Crisis Stabilization Center include:

1. Sixteen beds dedicated to providing medically monitored detox services to adults.
2. Medication-assisted treatment to mitigate the symptoms of Opiate withdrawal and stabilize recovery.
3. Sixteen beds dedicated to providing mental health stabilization services to adults. Many of these adults are also challenged with substance use disorders that may exacerbate their symptoms of mental illness. Co-occurring treatment is offered to ensure comprehensive care to these individuals.
4. Discharge planning and connection to community or in-patient treatment providers offered to optimize client recovery and stabilization.

Law Enforcement officials may directly refer and transport individuals to the Crisis Stabilization Center as they deem appropriate, and as accepted by the facility.

II. Scope of Work:

This contract provides partial funding of all aspects of the ongoing maintenance and operation of the Crisis Stabilization Center as set forth in the Background section above.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-642

File ID:	AB2021-642	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	SBatdorf@co.whatcom.wa.us		
Department:	Parks and Recreation Department	File Type:	Interlocal		
Assigned to:	Council Finance and Administrative Services Committee			Final Action:	
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: sbatdorf@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and Point Roberts Park and Recreation District No. 1 for usage of the District's Community Center for senior programming, in the amount of \$1,000

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

This five-year agreement is a long-standing arrangement where the County uses space at the District owned Community Center to run Senior Programming. The District will reimburse the County \$3,500 annually to offset the County's costs for the second day of programming. The County will reimburse the District \$1,000 annually for the cost of utilities.

HISTORY OF LEGISLATIVE FILE


Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Staff Memo, Proposed Interlocal



MEMORANDUM

TO: Satpal Sidhu, Executive

FROM: Michael McFarlane, Director 

DATE: October 28, 2021

RE: Point Roberts Senior Activity Program Building Use Agreement

Enclosed is an interlocal agreement with the Point Roberts Park & Recreation District No. 1 for your signature. This five-year agreement is a long-standing arrangement where the County uses space at the District owned Community Center to run Senior Programming.

The District will reimburse the County \$3500 annually to offset the County's costs for the second day of programming. The County will reimburse the District \$1000 annually for the cost of utilities.

If you have any questions, please contact me at ext. 5856

Thank you.

WHATCOM COUNTY CONTRACT INFORMATION SHEET

Whatcom County Contract No.

Originating Department:	Parks & Recreation
Division/Program: (i.e. Dept. Division and Program)	803000 Senior Services
Contract or Grant Administrator:	Shannon Batdorf
Contractor's / Agency Name:	Point Roberts Park & Recreation District No. 1
Is this a New Contract? Yes <input checked="" type="radio"/> No <input type="radio"/> If not, is this an Amendment or Renewal to an Existing Contract? Yes <input type="radio"/> No <input checked="" type="radio"/> If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #: _____	
Does contract require Council Approval? Yes <input checked="" type="radio"/> No <input type="radio"/> If No, include WCC: _____ Already approved? Council Approved Date: _____ (Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)	
Is this a grant agreement? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, grantor agency contract number(s): _____ CFDA#: _____	
Is this contract grant funded? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, Whatcom County grant contract number(s): _____	
Is this contract the result of a RFP or Bid process? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, RFP and Bid number(s): _____ Contract Cost Center: _____	
Is this agreement excluded from E-Verify? No <input type="radio"/> Yes <input checked="" type="radio"/> If no, include Attachment D Contractor Declaration form.	
If YES, indicate exclusion(s) below: <input type="checkbox"/> Professional services agreement for certified/licensed professional. <input type="checkbox"/> Goods and services provided due to an emergency <input type="checkbox"/> Contract work is for less than \$100,000. <input type="checkbox"/> Contract for Commercial off the shelf items (COTS). <input type="checkbox"/> Contract work is for less than 120 days. <input type="checkbox"/> Work related subcontract less than \$25,000. <input checked="" type="checkbox"/> Interlocal Agreement (between Governments). <input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.	
Contract Amount:(sum of original contract amount and any prior amendments): \$ 1,000 This Amendment Amount: \$ _____ Total Amended Amount: \$ 1,000	Council approval required for; all property leases, contracts or bid awards exceeding \$40,000 , and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when : 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance. 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.
Summary of Scope: The Point Roberts Park & Rec District owns and maintains the Point Roberts Community Center. Parks operates the Senior Program in Point Roberts. The District allows Parks to use of a portion of the Community Center for the Senior Program. The District pays the County \$3500 annually to offset the cost of the 2nd day of programming. The County pays the District \$1000 annually to offset the cost of utility usage at the Community Center for the senior program.	
Term of Contract: 5 years Expiration Date: 12/31/2027	

Contract Routing:	1. Prepared by: Shannon Batdorf	Date: 10/28/2021
	2. Attorney signoff: <u>Branden W. Hildren by email</u>	Date: <u>10/28/21</u>
	3. AS Finance reviewed: <u>Brad Bennett by email</u>	Date: <u>10/28/21</u>
	4. IT reviewed (if IT related): _____	Date: _____
	5. Contractor signed: _____	Date: _____
	6. Submitted to Exec.: _____	Date: _____
	7. Council approved (if necessary): _____	Date: _____
	8. Executive signed: _____	Date: _____
	9. Original to Council: _____	Date: _____

**INTERLOCAL COOPERATIVE AGREEMENT
BETWEEN
WHATCOM COUNTY
AND
THE POINT ROBERTS PARK AND RECREATION DISTRICT NO. 1**

WHATCOM COUNTY, a municipal corporation, hereinafter referred to as "COUNTY" and the **POINT ROBERTS PARK AND RECREATION DISTRICT No. 01**, hereinafter referred to as "DISTRICT", hereby agree to the following terms:

Whereas, DISTRICT owns and maintains the Point Roberts Community Center facility upon the following premises situated in Point Roberts, Whatcom County, Washington to-wit:

The building known as the "Community Center" (once known as the "Schoolhouse") situated on a tract of land, located in Section 3, Township 40 North, Range 3 W.M. described as;

Commencing 338 feet East and 20 feet South of the Northeast corner of Lot 4, Section 4, township 40 North, Range 3 West of W.M., thence East 200 feet, thence South 193 feet; thence North 193 feet to Point of beginning.

Whereas, COUNTY, through its Parks and Recreation Department, operates a program to coordinate benefits and activities for senior citizens at selected senior citizen centers strategically situated throughout Whatcom County;

Whereas, since November 26, 1973 through December 31, 2021, DISTRICT leased to COUNTY a portion of the Point Roberts Community Center as one of its Senior Activity Center facilities;

Now Therefore, in consideration of the mutual covenants contained herein, the parties agree as follows:

1. Lease Granted:

In consideration of the premises, and in exchange mutual benefits to be derived from this Agreement DISTRICT hereby leases to Parks and Recreation Department of COUNTY for use as a Senior Activity Program, Room #1 Lounge Area, Room #2 Dining Room and Kitchen, and Room #3 Small Meeting Room.

2. Term:

The term of this Agreement shall commence January 1, 2022 and shall terminate December 31, 2027. The term of this Agreement may be extended by mutual agreement of the parties for an additional five (5) year period.

3. Extent of Use:

COUNTY's use of the DISTRICT facilities shall be nonexclusive. COUNTY shall ensure that at the close of each use period the leased portions of the Community Center building are neat, clean, tidy and secured. In addition, DISTRICT shall not be responsible to COUNTY for theft, destruction or injury to tangible personal property left unsecured in the premises between senior citizen activities.

4. Preferential Use:

The Point Roberts Senior Activity Program is accorded preferential use for up to two (2) guaranteed scheduled days during each calendar week. Senior Activity Programs are currently scheduled on Wednesdays and Fridays from 10:00 a.m. – 2:00 p.m. The Senior Program is also entitled to schedule special events with prior approval from the DISTRICT.

Provision of a second day by the COUNTY is contingent upon the DISTRICT providing payment to the Parks and Recreation Department in the amount of \$3,500 annually to help defray the cost of operations. Payments will be made by the DISTRICT to Parks and Recreation Department no later than June each year. Provision and funding of a second day of operation is subject to annual renewal provided that both parties mutually agree that Point Roberts Senior Activity Program attendance levels are sufficient to justify continuation of the program.

5. Supervision of Activities and Keys:

The COUNTY will insure that a paid employee or trained volunteer will be onsite to adequately supervise Senior Activity Programs at all times. The DISTRICT will issue a full set of keys to COUNTY to provide access to leased areas of the building. The COUNTY will check these keys out to the paid staff person supervising Senior Activity Program activities.

6. Scheduling of Users:

Control of the facility and scheduling of its use remain with the DISTRICT, with specific times of use by senior citizens to be coordinated through DISTRICT Board representatives. Representatives of COUNTY's Parks and Recreation Department or senior citizens will be accorded fair consideration of any matter they may bring to the DISTRICT's attention concerning this Agreement, the rights and privileges hereunder, and the equitable adjustment of any grievance that may arise regarding this Agreement, the facilities, or condition, use or maintenance thereof.

7. Alterations or Improvements:

COUNTY shall make no alterations or improvements to the facility except upon prior written approval of the DISTRICT. The DISTRICT will provide COUNTY at least thirty (30) days' notice on any alterations or improvements that will affect COUNTY's use of the premises.

8. Consideration:

COUNTY will not be charged any rent, license, or fee for the use of the premises or facilities as herein agreed. COUNTY will pay to the DISTRICT the amount of One Thousand Dollars and No Cents (\$1,000.00) per year as a contribution to utilities and to cover phone expenses.

9. Independence of Parties and Employees:

COUNTY and the DISTRICT shall not be deemed hereby to become joint operators of the Point Roberts Senior Activity Program and the same shall remain the sole activity and responsibility of COUNTY. All employees and volunteers engaged or serving COUNTY in the operation of the Point Roberts Senior Activity Program shall not by this Agreement or activities or programs contemplated herein be construed to be employees, agents or volunteers serving the DISTRICT.

10. Nondiscrimination:

The COUNTY's policy is to provide equal opportunity in all terms, conditions and privileges of employment for all qualified applicants and employees without regard to race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, or veteran status.

The DISTRICT agrees not to discriminate against any participant, volunteer, employee or individual based upon race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability or veteran status.

11. MUTUAL INDEMNITY:

A. Mutual Indemnity. To the extent of its comparative liability, each party agrees to indemnify, defend and hold the other party, its elected and appointed officials, employees, agents and volunteers, harmless from and against any and all claims, damages, losses and expenses, including but not limited to court costs, attorney's fees and alternative dispute resolution costs, for any personal injury, for any bodily injury, sickness, disease or death and for any damage to or destruction of any property (including the loss of the use resulting therefrom) which are alleged or proven to be caused by an act or omission, negligent or otherwise, of its elected and appointed officials, employees, agents or volunteers.

In the event of any concurrent act or omission of the parties, each party shall pay its proportionate share of any damages awarded. The parties agree to maintain a consolidated defense to claims made against them and to reserve all indemnity claims against each other until after liability to the claimant and damages, if any, are adjudicated. If any claim is resolved by voluntary settlement and the parties cannot agree upon appointment of damages and defense costs, they shall submit apportionment to binding arbitration.

B. Survival of Indemnity Obligations. The parties agree all indemnity obligations shall survive the completion, expiration or termination of this Agreement.

12. TERMINATION:

This Agreement may be terminated by either party upon giving sixty (60) days' written notice of termination. The written notice shall specify the reason for the termination. If this Agreement is terminated, the parties shall be liable for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination, and shall refund to the other party any prepaid amounts under sections 4 and 8 on a prorated basis.

13. COMMUNICATION:

Communication between the parties shall be addressed to their regular places of business. For the COUNTY;

ATTN: Whatcom County Parks & Recreation
3373 Mount Baker Highway
Bellingham WA 98226

For the District;
ATTN: Point Roberts Park and Recreation District No. 1
1437 Gulf Road
PO Box 957
Point Roberts, WA 98281

14. SEVERABILITY:

If any term or condition of this agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this agreement are declared severable.

15. MODIFICATION:

No change or addition to this Agreement shall be valid or binding upon either party unless such change or addition is in writing, executed by the parties and approved by the COUNTY.

DATED this 25 day of October, 2021

FOR POINT ROBERTS PARK AND RECREATION DISTRICT NO 1

Bennett Blaustein

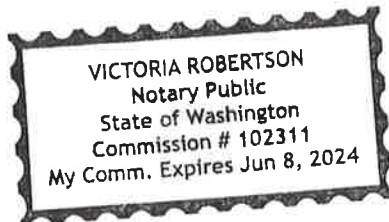
Chairperson

STATE OF WASHINGTON)

)ss.

COUNTY OF WHATCOM)

On this 25th day of October, 2021, before me personally appeared Bennett Blaustein to me known to be the Chairperson of the Point Roberts Park And Recreation District No. 1 and who executed the above instrument and who acknowledged to me the act of signing and sealing thereof.



Victoria Robertson

NOTARY PUBLIC in and for the State of Washington residing at

476 Tyee Dr. Point Roberts

My commission expires 06-08-2024

FOR WHATCOM COUNTY

Satpal Sidhu, Whatcom County Executive

STATE OF WASHINGTON)

)ss.

COUNTY OF WHATCOM)

On this _____ day of _____, 20____, before me personally appeared Satpal Sidhu to me known to be the Whatcom County Executive and who executed the above instrument and who acknowledged to me the act of signing and sealing thereof.

NOTARY PUBLIC in and for the
State of Washington residing at
_____.

My commission expires _____



Michael McFarlane
Whatcom Parks & Recreation Director

APPROVED AS TO FORM:

Approved by email / B. Waldron
Senior Deputy Prosecuting Attorney



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-643

File ID:	AB2021-643	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	SBatdorf@co.whatcom.wa.us		
Department:	Parks and Recreation Department	File Type:	Interlocal		
Assigned to:	Council Finance and Administrative Services Committee			Final Action:	
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: sbatdorf@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and City of Everson for use of building space at Everson City Hall for senior programming, in the amount of \$500

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

This agreement is a long-standing arrangement and outlines the terms and conditions for the County's usage of building space at the Everson City Hall to run senior programming. For this one-year agreement, the County will reimburse the City of Everson \$500 for the cost of utilities and building maintenance.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Interlocal


**WHATCOM COUNTY
Parks & Recreation**

3373 Mount Baker Highway
Bellingham, WA 98226-7500



Michael G. McFarlane, Director
Christ Thomsen, Parks Operations Manager

MEMORANDUM

TO: Satpal Sidhu, Executive
FROM: Michael McFarlane, Director 
DATE: October 28, 2021
RE: Everson Senior Activity Program Building Use Agreement

Enclosed is an interlocal agreement with the City of Everson for your signature. This long-standing arrangement outlines the terms and conditions for the County to use space at Everson City Hall to run Senior Programming.

For this one-year agreement, the County will reimburse the City of Everson \$500 annually for the cost of utilities.

If you have any questions, please contact me at ext. 5856

Thank you.

WHATCOM COUNTY CONTRACT INFORMATION SHEET

Whatcom County Contract No.

Originating Department:	Parks & Recreation
Division/Program: (i.e. Dept, Division and Program)	803000 Senior Services
Contract or Grant Administrator:	Shannon Batdorf
Contractor's / Agency Name:	City of Everson
Is this a New Contract? Yes <input checked="" type="radio"/> No <input type="radio"/> If not, is this an Amendment or Renewal to an Existing Contract? Yes <input type="radio"/> No <input checked="" type="radio"/> If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #: _____	
Does contract require Council Approval? Yes <input checked="" type="radio"/> No <input type="radio"/> If No, include WCC: _____ Already approved? Council Approved Date: _____ (Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)	
Is this a grant agreement? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, grantor agency contract number(s): _____ CFDA#: _____	
Is this contract grant funded? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, Whatcom County grant contract number(s): _____	
Is this contract the result of a RFP or Bid process? Yes <input type="radio"/> No <input checked="" type="radio"/> If yes, RFP and Bid number(s): _____ Contract Cost Center: _____	
Is this agreement excluded from E-Verify? No <input type="radio"/> Yes <input checked="" type="radio"/> If no, include Attachment D Contractor Declaration form.	
If YES, indicate exclusion(s) below: <input type="checkbox"/> Professional services agreement for certified/licensed professional. <input type="checkbox"/> Goods and services provided due to an emergency <input type="checkbox"/> Contract work is for less than \$100,000. <input type="checkbox"/> Contract for Commercial off the shelf items (COTS). <input type="checkbox"/> Contract work is for less than 120 days. <input type="checkbox"/> Work related subcontract less than \$25,000. <input checked="" type="checkbox"/> Interlocal Agreement (between Governments). <input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.	
Contract Amount:(sum of original contract amount and any prior amendments): \$ 500 This Amendment Amount: \$ _____ Total Amended Amount: \$ 500	Council approval required for; all property leases, contracts or bid awards exceeding \$40,000 , and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when: 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance. 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.
Summary of Scope:	
This agreement outlines the terms and conditions for Parks usage of a portion of the City of Everson's City Hall building for the Senior Services Program in Everson. The County pays the City \$500 annually to contribute to utility costs and building maintenance in exchange for usage of the building.	
Term of Contract: 1 years Expiration Date: 12/31/2022	

Contract Routing:	1. Prepared by: Shannon Batdorf	Date: 10/28/2021
	2. Attorney signoff: Brandon Waldron by email	Date: 10/28/21
	3. AS Finance reviewed: Brad Bennett by email	Date: 10/28/21
	4. IT reviewed (if IT related):	Date:
	5. Contractor signed:	Date:
	6. Submitted to Exec.:	Date:
	7. Council approved (if necessary):	Date:
	8. Executive signed:	Date:
	9. Original to Council:	Date:

**INTERLOCAL COOPERATIVE AGREEMENT
BETWEEN THE
CITY OF EVERSON AND WHATCOM COUNTY PARKS & RECREATION**

This Agreement made and entered into by WHATCOM COUNTY, a municipal corporation, hereinafter referred to as "COUNTY"; and the CITY OF EVERSON, a municipal corporation, hereinafter referred to as "CITY" pursuant to the authority granted by chapter 39.34 RCW, INTERLOCAL COOPERATION ACT.

WHEREAS, CITY owns and maintains the Everson City Hall upon the following described premises, situated in Everson, Whatcom County, Washington, to-wit:

A tract of land situated in the Northeast Quarter of the Northwest Quarter of Section 31, Township 40 North, Range 4 East of W.M., more particularly described as follows:

Beginning at a point 30 feet South and 260 feet West of the quarter corner between Sections 30 and 31, Township 40 North, Range 4 East of W.M.; thence West along the South side of Main Street, 70 feet; thence South parallel to the East line of said Section 31, 100 feet; thence East parallel to the South line of Main Street 70 feet; thence North to the point of beginning;

WHEREAS, the COUNTY, through its Parks and Recreation Department, operates a program to coordinate benefits and activities for senior citizens at selected senior citizen centers strategically situated throughout Whatcom County;

WHEREAS, since March 19, 1973 through the December 31, 2021 the CITY has licensed the COUNTY for nonexclusive use of a portion of the Everson City Hall as one of its satellite facility Senior Activity Centers;

WHEREAS, the parties have agreed to the extension of their relationship for a period of one (1) year;

NOW THEREFORE the parties hereto agree as follows:

1. **LICENSE GRANTED:** The CITY consents to the use of the large assembly room (aka auditorium), stage and kitchen of the Everson City Hall (the "Facility") as a Senior Activity Center Program during the full term of this Agreement.
2. **TERM:** Agreement shall run for one year from January 1, 2022 to December 31, 2022.
3. **EXTENT OF USE:** The COUNTY'S use of the Facility shall be nonexclusive and limited as provided herein and shall be subject to the rules and regulations regarding the use of the Facility as may be established from time to time by the Everson City Council. The COUNTY further acknowledges that the Facility shall remain available for other public use at scheduled and/or selected times for selected occasions and meetings at reasonable reserved times that may conflict with the COUNTY'S desired use if the COUNTY has not reserved the space in advance and received a confirming reservation letter. The COUNTY shall be responsible for setting up the Facility prior to its use, including setting up tables, chairs and any refreshments. The CITY shall not be required to provide

any services to prepare the Facility for its use by the COUNTY. The COUNTY shall ensure that at the close of each use period the Facility is returned to its original condition and that it is neat, clean, tidy, and secured. The COUNTY shall clean or provide a service for cleaning all bathroom and kitchen facilities after its use of the Facility.

The CITY shall not be responsible to the COUNTY for theft, destruction or damage to tangible personal property on the premises during or between senior citizen activities at the Facility. The COUNTY shall obtain its own casualty insurance covering any tangible personal property of its own or its guests during its use of the Facilities.

4. **PRIORITY FOR CITY OF EVERSON USE:** Without limiting any right of the CITY, the COUNTY acknowledges that the following are priorities for use of the Facility, and when such activities are scheduled, are as follows:

- a) Regular and special Everson official meetings (e.g. City Council, Planning Agency, etc.);
- b) Regular and special sessions of Everson Municipal Court; and
- c) Public shelter during times of emergency declared by the Everson Mayor

Other uses, such as the following, may be scheduled on a first come first serve, space available basis:

- a) Regularly scheduled Everson Senior Center daytime activities;
- b) Reserved evening, weekend or holiday event use by nonprofit organizations
- c) Service clubs (including special Everson Senior Center events); and
- d) Other uses.

Space available is a determination that is made by the CITY in its sole discretion. The COUNTY shall be entitled to no preference for use or reservation of the Facility.

5. **SCHEDULING OF USERS:** Control of the building and scheduling its use shall remain in the CITY's sole discretion, with specific times to be coordinated through the City Administration. Representatives of Whatcom County's Parks & Recreation Department or Senior Citizens will be accorded fair consideration of any matter they may bring to the City Council's attention, as would be provided to any other citizen or group concerning this Agreement, the rights and privileges hereunder, and the equitable adjustment of any grievances that may arise regarding this Agreement, the facilities, or the condition, use or maintenance thereof, provided that this provision grants the COUNTY no special privileges or rights.
6. **ALTERATIONS OR IMPROVEMENTS:** The COUNTY shall make no alterations or improvements to the Facility except upon prior approval of Everson's City Council.
7. **CONSIDERATION:** The COUNTY will pay the CITY the amount of **Five Hundred Dollars (\$500.00)** per year, payable in one lump sum no later than **April 30th** of each year, as its contribution to utilities, plus any clean-up costs or replacement of sundries or supplies necessary as a result of the COUNTY's use, but no rent, licensee fee or other fee, except as

provided for herein. The COUNTY will, to the extent reasonably available within the Parks and Recreation Department, provide assistance with electrical, kitchen appliance and building repairs, and general maintenance, within the Facility.

The COUNTY will also coordinate the collection of an additional Five Hundred (\$500.00) from the Everson Senior Center Group to the CITY as their contribution toward the use of the building, payable by June 30th of each year.

- 8. INDEMNITY:** To the extent of its comparative liability, each party agrees to indemnify, defend and hold the other party, its elected and appointed officials, employees, agents and volunteers, harmless from and against any and all claims, damages, losses and expenses, including but not limited to court costs, attorney's fees and alternative dispute resolution costs, for any personal injury, for any bodily injury, sickness, disease or death and for any damage to or destruction of any property (including the loss of use resulting therefrom) which are alleged or proven to be caused by an act or omission, negligent or otherwise, of its elected and appointed officials, employees, agents or volunteers.

In the event of any concurrent act or omission of the parties, each party shall pay its proportionate share of any damages awarded. The parties agree to maintain a consolidated defense to claims made against them and to reserve all indemnity claims against each other until after liability to the claimant and damages, if any, are adjudicated. If any claim is resolved by voluntary settlement and the parties cannot agree upon apportionment of damages and defense costs, they shall submit apportionment to binding arbitration.

- a. Survival of Indemnity Obligations.** The parties agree all indemnity obligations shall survive the completion, expiration or termination of this Agreement.

Each Party shall immediately notify the other Party of any dangerous structural condition it or its employees or volunteers observes, and shall barricade, closure or other effective means prevent contact by its program staff and participants with the dangerous condition.

- 9. INDEPENDENCE OF PARTIES AND EMPLOYEES:** The CITY and COUNTY shall not be deemed hereby to become joint operators of the Facility. The Everson Senior Activity Center program shall remain the sole activity and responsibility of the COUNTY. All employees and volunteers engaged or serving the COUNTY in the operation of the Everson Senior Activity program shall not by this Agreement or activities or programs contemplated herein be construed to be employees, agents or volunteers serving the CITY.

9.1 The COUNTY shall ensure that all employees and volunteers coming into contact with kitchen equipment, lifting objects, counseling people, providing transportation and/or administering other programs are at all times properly licensed and trained to do so.

- 10. NON-DISCRIMINATION IN EMPLOYMENT:** During the term of this Agreement, the COUNTY shall provide equal opportunity in all terms, conditions and privileges of employment for all qualified applicants and employees without regard to race, color, creed, religion, national

origin, sex, sexual orientation, age, marital status, disability, or veteran status. The COUNTY shall comply with all laws prohibiting discrimination against any employee or applicant for employment on the grounds of race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, or veteran status, except where such constitutes a bona fide occupational qualification.

Furthermore, in those cases in which the COUNTY is governed by such laws, the COUNTY shall take affirmative action to ensure that applicants are employed, and treated during employment, without regard to their race, color, creed, religion, national origin, sex, age, marital status, sexual orientation, disability, or veteran status, except where such constitutes a bona fide occupational qualification. Such action shall include, but not be limited to: advertising, hiring, promotions, layoffs or terminations, rate of pay or other forms of compensation benefits, selection for training including apprenticeship, and participation in recreational and educational activities. In all solicitations or advertisements for employees placed by them or on their behalf, the Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, and any other applicable protections provided by law.

The foregoing provisions shall also be binding upon any subcontractor, provided that the foregoing provision shall not apply to contracts or subcontractors for standard commercial supplies or raw materials, or to sole proprietorships with no employees.

11. **TERMINATION:** The CITY may rescind, cancel, or terminate this Agreement, in whole or in part, without penalty to Everson upon thirty (30) days' notice to the COUNTY. Without limiting or waiving the foregoing, in the event of the COUNTY'S noncompliance or refusal to comply with any provision, obligation or undertaking contained in this Agreement, CITY may allow COUNTY a reasonable time in which to cure such noncompliance.
12. **AMENDMENT:** This Agreement may be altered, amended, supplemented or terminated at any time by mutual agreement of both parties hereto, but no right or interest herein may be pledged, assigned, or subleased without prior written mutual consent of both parties.
13. **ATTORNEYS' FEES:** If this Agreement should be the subject matter of litigation between the parties, the prevailing party in said litigation shall be entitled to an award of reasonable attorneys' fees, plus court costs.
14. **ADMINISTRATION OF CONTRACTS:** The following individuals are designated as representatives of the respective parties. The representatives shall be responsible for administration of this Agreement and for coordination and monitoring performance under this Agreement. In the event such representatives are changed, the party making the change shall notify the other party.
 - a. The CITY representative shall be _____, designee or successor:
Phone: _____; Email: _____
 - b. The COUNTY representative shall be Shannon Batdorf, designee or successor:
Phone: 360-778-5856; Email: sbatdorf@co.whatcom.wa.us

- 15. WAIVER:** No failure by any of the foregoing parties to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement, or to exercise any right or remedy consequent upon a breach thereof, shall constitute a waiver of any such breach or any other covenant, agreement, term or condition. Any party hereto, by notice, and only by notice as provided herein may, but shall be under no obligation to, waive any of its rights or any conditions to its obligations hereunder, or any duty, obligation or covenant of any other party hereto. No waiver shall affect or alter this Agreement, and each and every covenant, agreement, term, and condition of this Agreement shall continue in full force and effect with respect to any other then existing or subsequent breach thereof.
- 16. ENTIRE AGREEMENT:** This document is the complete and exclusive agreement between the parties. It supersedes all oral or written proposals, promises or other communications between the parties regarding the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement this 12 day of October, 2021.

APPROVED:

CITY OF EVERSON



John Perry, Mayor

Executed as of the date first written above.

STATE OF WASHINGTON)

) ss.

COUNTY OF WHATCOM)

On this 12 day of October, 2021, before me personally appeared John Perry to me known to be MAYOR of CITY OF EVERSON and who executed the above instrument and acknowledged to me the act of signing and sealing thereof.

Given under my hand and official seal this 12 day of October, 2021



NOTARY PUBLIC in and for the State of Washington
Residing in Bellingham.
My Commission expires: 07/16/2022



APPROVED:

WHATCOM COUNTY

Satpal Sidhu, County Executive

STATE OF WASHINGTON)

) ss.

COUNTY OF WHATCOM)

On this ____ day of _____, 20__, before me personally appeared Satpal Sidhu to me known to be County Executive of WHATCOM COUNTY and who executed the above instrument and acknowledged to me the act of signing and sealing thereof.

Given under my hand and official seal this ____ day of _____, 20__.

NOTARY PUBLIC in and for the State of Washington
Residing in Bellingham.
My Commission expires: _____

WHATCOM COUNTY PARKS & RECREATION DEPARTMENT



Michael McFarlane, Director

APPROVED AS TO FORM:

Approved by email/B. Waldron
Deputy Prosecuting Attorney



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-649

File ID:	AB2021-649	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	MKeeley@co.whatcom.wa.us		
Department:	Human Resources Division	File Type:	Resolution		
Assigned to:	Council Finance and Administrative Services Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: mkeeley@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution approving a salary schedule and policies for Unrepresented Whatcom County employees effective January 1, 2022 through December 31, 2022

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Please refer to Executive memo for background and more information

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Resolution



TO: County Council Members
FROM: Satpal Sidhu, County Executive
DATE: October 29, 2021
SUBJECT: **2022 UNREPRESENTED RESOLUTION**

For your consideration are my recommendations for the one-year 2022 Unrepresented Resolution. Notable changes are a 3% wage increase, observation of Juneteenth following the State's holiday schedule, [RCW 1.16.050](#), modification to vacation/PTO cash out, and clarification on working a holiday.

All changes are summarized below.

Wages

- 3% across the board wage increase in January 2022

Holidays

- Observation of 11 holidays following State holiday schedule in addition to the day before Christmas

Vacation/PTO Cashout

- Up to 40 hours over the maximum cap if funds exist and department head approves

Working a Holiday

- Clarifies options for the use of compensatory time if unable to observe time due to emergency

Should you have any questions on the details of the above changes, please contact Melissa Keeley via email mkeeley@co.whatcom.wa.us or at extension 5305.

PROPOSED BY: Executive

INTRODUCTION DATE: November 9, 2021

RESOLUTION NO. 2021 – _____

**A RESOLUTION IN THE MATTER OF ADOPTING A SALARY SCHEDULE AND
POLICIES FOR UNREPRESENTED WHATCOM COUNTY EMPLOYEES
EFFECTIVE JANUARY 1, 2022 through DECEMBER 31, 2022**

WHEREAS, employees in certain County job classifications are unrepresented and do not engage in collective bargaining on matters relating to wages, benefits and other terms and conditions of employment; and

WHEREAS, unrepresented employees should be compensated, based on the concept of a salary matrix, within the proper range and step for authorized positions within the adopted biennial budget; and

WHEREAS, it is intended that Administration will follow the policies set forth below; and

WHEREAS, it is nonetheless understood that state law may override certain stipulations set forth herein;

THEREFORE, BE IT RESOLVED by the Whatcom County Council the following personnel policies, conditions of employment, and salary matrices are hereby adopted.

Section 1. APPLICABILITY

This Resolution applies to Unrepresented Employees and Elected Officials within the following groups:

Group A	Department Heads
Group B	Managers
Group C	Professional and Supervisory
Group D	Support (FLSA non-exempt confidential)
Group E	Undersheriff
Group F	Court Reporters and Public Health Officers
Group G	Court Commissioners
<u>Elected Officials</u>	County Executive, Treasurer, Assessor, Auditor, Prosecuting Attorney, County Council, District Court Judge, Sheriff

References to "employees" herein are addressed to the persons within the groups listed above unless the context clearly indicates otherwise.

Section 2. SALARY RANGES (Groups A through G)

2.1 Groups A through F. Effective the first full pay period in 2022, each wage step in all ranges of the 2021 salary matrices shall increase by 3.0%. (Addendum A).

The monthly salaries shall be established within the ranges and steps provided for each Group and shall be effective on the date listed on the applicable salary matrix and shall remain in place until changed.

Monthly salary amounts indicated are for one (1.0) FTE (full-time equivalent). On an annual basis, full-time equivalency is considered to be 2,080 hours, calculated as eight hours a day times five work days per week. Compensation for employees working less than full time is pro-rated based on a 40-hour work week. Monthly amounts may be converted to an hourly rate by dividing the monthly amount by 173.33.

2.1.1 Sub-Ranges. Certain sub-ranges (as designated on the appropriate salary matrix) were created to address supplemental compensation replacement for employees who were receiving compensation under Executive Order 2004-03. These sub-ranges are not applicable to other individuals. The sub-range is in recognition of previously negotiated compensation based on multiple assignments, varied duties, working far beyond the hours required in a regular work week, evening meetings, and responding to emergencies in order to minimize the cost of administration and provide the greatest flexibility for the County. Employees in sub-ranges 500.1 are not eligible for Interim Assignment Pay (section 4.6), Emergency Response Pay (section 4.10) or Paid Administrative Leave (section 4.5.1).

Section 3. SALARY RANGES (Groups F and G and Elected Officials)

3.1 Flat Rate Positions (Group F). The monthly salaries are flat rate with a Recognition and Retention component included. The monthly salaries in Addendum A are prorated as follows:

	<u>FTE</u>	<u>Range</u>
Court Reporter	.875	801
Health Officer	.60	802

3.2 Court Commissioners (Group G). Court Commissioners are paid at a rate equivalent to a percentage of the comparable state judiciary level salary set by the Washington Citizens' Commission on Salaries for Elected Officials to be effective July 1 of each year. If there is a change to the state judiciary salary level, salaries may be updated during the term of this Resolution.

	<u>% of Comp. Judge</u>	<u>Range</u>
Superior Court Commissioner	90%	903
District Court Commissioner	85%	904

3.3 Elected Officials. The Whatcom County Commission on Salaries for Elected Officials sets the salaries for the elected positions of Assessor, Auditor, Treasurer, Sheriff, Prosecuting Attorney, County Executive, and County Council. The District Court Judge salary is set by the Washington Citizens' Commission on Salaries for Elected Officials.

Section 4. COMPENSATION AND EMPLOYMENT (Groups A through and F)

4.1 Step Movement. All step increases shall be awarded on the basis of successful job performance. A performance evaluation must have been completed for employees in Groups A through D, and F within the last year and the most recent evaluation must "exceed requirements" overall to advance to the next step per the time period indicated on the appropriate salary matrix. Step movement will occur on the first day of the month of hire or the appropriate adjusted month.

4.2 Reclassification or Promotion. If funding is available within the authorized budget, department heads can request a promotion or reclassification of a position so long as it is in compliance with County policy on reclassifications (Policy [AD140150Z](#)) and receives written approval by the County Executive or designee. Employees who are reclassified because of the addition of significantly higher-level duties, or promoted into a higher position, shall move to the step in the new range as provided below. Employees are generally placed in a step providing at least a 5% wage increase. The 'top wage step' is defined as the highest step in a given range which includes an annual increase in the wage rate over the preceding step. (Step 9 for Groups A, B, C, E and F; Step 10 for Group D)

- If a 5% increase would place the employee below the top wage step in the new range, the employee is placed in the new range in the step providing at least a 5% increase. The reclassification or promotion date becomes the next step date.
- For employees currently below the top wage step if a 5% increase would place the employee at or above the top wage step in the new range, the employee is placed in the top wage step. The reclassification or promotion date becomes the next step date.
- For employees currently at or above the top wage step if a 5% increase would place the employee at or above the top wage step in the new range, the employee is placed in the new range at their current step and maintains their current next step date.
- For employees in Group E, the employee's base salary (steps 1 through 9) is used to calculate step placement.

4.3 Realignment. If funding is available within the authorized budget, department heads can request realignment of positions which are paid at least three percent (3.00%) below the average of at least four (4) of the six (6) comparable counties (Benton, Cowlitz, Kitsap, Skagit, Thurston, Yakima). All comparable counties where matches exist must be used. The realignment will occur in January following approval by the County Executive or designee of the written realignment request. Employees moving to a new range because of position or range realignment shall be placed in their current step (but no higher than the top step) one range above their current range. The effective date of the realignment shall become the step increase date. Positions which are experiencing recruitment and/or retention difficulties may be looked at during the year if funding is available within the current year's budget for the department.

4.3.1 Additional Considerations. In the event the County identifies a position as one with documented local recruitment and/or retention difficulties, then secondary comparables based on close geographical location and sociological issues may be considered.

4.4 Position Movement to Lower Range. Employees moving to a position in a lower range may have a salary adjustment up or down depending upon individual qualifications for the position, the nature of the work performed, and internal equity with no change to the next step increase date.

4.5 Overtime and Compensatory Time Pay. The provisions for overtime payments and compensatory time (for working over 40 hours in a week) apply only to employees who are covered as non-exempt by the Federal Fair Labor Standards Act (FLSA). Non-exempt employees requesting compensatory time in lieu of overtime pay shall have such request granted up to a maximum of twenty-four (24) hours per calendar year. Additional compensatory time may be mutually agreed to, but an employee may accrue no more than a maximum of 80 hours of compensatory time at any time. All compensatory time earned under this section shall be cashed out each year in December in the last paycheck of the calendar year.

4.5.1 Paid Administrative Leave. In recognition of the contributions unrepresented employees sometimes make in working far beyond the hours required in a regular work week, and the fact that FLSA-exempt employees do not get overtime or compensatory time, the County Executive or designee has authority to award deserving FLSA exempt employees up to five (5) days of paid administrative leave per year. These days must be used in the year awarded unless County business prevents this occurring, in which case they can be carried over one year. Administrative leave may only be cashed out upon separation.

The County Executive or designee is empowered to authorize extra pay for unrepresented employees during a period of extraordinary circumstances (such as emergency conditions, a strike, etc.).

4.6 Interim Assignment Pay. From time to time, employees may be asked to cover all or part of the duties of a higher-level position during periods of extended absence, vacancy, or for special assignments. In these instances, interim assignment pay may be awarded. Department heads must complete an "Interim Assignment Pay Authorization Form" and submit to Human Resources prior to making the assignment. (Policy [AD140325Z](#))

4.7 Employment Opportunities. Employees who wish to apply for a union position may do so by the posted closing date for union members. Applications will be reviewed only if there are no current eligible and qualified represented employees from the applicable bargaining unit who apply or who are selected for the opening. The County, at its sole discretion, may or may not at that time select unrepresented employees for any type of opening, or may proceed with a public posting and include the unrepresented employees in the employment process.

4.7.1 Provisional Appointments. The County may make provisional appointments for employees not fully meeting all requirements and qualifications. Such employees will be placed in a range lower than the posted position, receiving at least a 5% promotional increase (in compliance with section 4.2) and will not receive another promotional increase upon fully meeting posted requirements. They will maintain their step increase date when moved to the range of the posted position and be placed in the step closest to but not less than the provisional appointment rate of pay.

4.8 Disciplinary Suspensions. FLSA-exempt employees are not subject to unpaid disciplinary suspensions except in increments of full work-weeks, unless the infraction leading to the suspension is for a violation of a safety rule of major significance.

4.9 Employment at Will. Employment is at will, which means either the employee or the County can end the employment relationship without being legally required to give notice or a reason except as stipulated herein, by County policy, or by law.

4.10 Emergency Response. Employees authorized in advance and required to respond in person to extraordinary emergencies, working anytime between the hours of 9:00 p.m. and 6:00 a.m., Monday through Friday and any time on Saturday or Sunday, shall receive a \$150 stipend per incident. If an employee is not on a pre-approved absence, and response to an incident is during normal hours but extends to hours or days noted above, no stipend is awarded. If the incident extends beyond 24 hours from the first response by employee and additional responses are required during times or days noted above, depending upon circumstances or the ability to flex time, an additional stipend may be awarded. Pre-authorization for extraordinary emergencies eligibility is provided by an employee's supervisor in advance with written approval of the department head for a specific incident requested after the incident occurs. Final approval of a specific incident is provided by the department head or designee ([Policy AD140325Z](#)). (["Authorization for Emergency Response Stipend or Compensatory Time"](#)). In the case of department heads, pre-authorization and final written approval of a specific incident is provided by the County Executive or designee.

4.11 Recognition and Retention Premium. Recognition and Retention Premium ceased to exist as a separate compensation item for all but Group E as it was rolled into applicable salary matrices.

4.12 Attorney Probable Cause Compensation. Any attorney in the Prosecuting Attorney's Office required to appear on a weekend or holiday at a scheduled Probable Cause hearing shall receive \$250 for his/her appearance.

4.13 Nomination for Merit Step

4.13.1 Merit Step. Employees who are not at the top wage step of their assigned range may be nominated by the department head to the County Executive or designee for a one-step adjustment in recognition of documented exemplary performance. A step adjustment for merit does not impact the step date.

4.13.2 Documentation. Documented exemplary performance for a merit step shall include a performance evaluation within the last year with an overall rating of at least "4.00" with no individual elements or sub-elements at or below the "needs improvement" level. Additional documentation must be in writing and shall include specific information as to the employee's contribution:

- to achievement of some element or elements of the strategic plan;
- that has organization- or community-wide impact;
- to the completion of a specific, significant department project; or
- to a similar type of accomplishment.

4.13.3 Timing. Nomination requests will normally be submitted during the budget process, but may be submitted any time during the year. Submission requires funding to be available within the authorized budget for the department.

4.14 Binding Arbitration Adjustment. In recognition of the fact that four bargaining units within the Sheriff's Office have access to binding interest arbitration, Sheriff's Office employees in Group E shall receive or be eligible for, on approximately the same basis as employees directly reporting to them, the following:

- Pay increases.
- The same basis for calculating longevity. Performance evaluation within last year must "exceed requirements" overall in order to be eligible for the Premium.
- The same annual clothing allowance if they must maintain a dress uniform.
- Medical coverage to the extent available.

4.15 Ability to Cross Border. Employees must maintain the ability to cross the Canadian border if they are assigned to a position which may at any time require crossing the Canadian Border. The consequence for employees who become ineligible to cross the border will be determined on a case-by-case basis.

4.16 Attorney After-Hours Weekly Rotations. Deputy Prosecuting Attorneys are assigned, on a rotating basis, to be accessible after work hours for a seven-day period of time to respond to and be available for time-sensitive court-related matters. After-hours weekly rotations are mandatory and assigned in advance; there is no lapse in after-hours coverage at any time. The weekly rotations are shared and each attorney will not work more than eight (8) weekly rotations in any one year.

To recognize the disruption caused by working weekly after-hour rotations, and the fact that attorneys are exempt from overtime and not compensated for overtime work, attorneys completing each weekly rotation shall be granted the choice of **EITHER** twelve (12) hours of compensatory time off **OR** a \$400 stipend. Attorney positions eligible for compensatory time off or stipend pay include:

- Deputy I
- Deputy II
- Senior Deputy
- Senior Deputy II

The Director and Chief Deputy in the Public Defender's Office and the Chief Deputy and Assistant Chief Deputy in the Prosecuting Attorney's Office may be included in the rotations as needed and will be eligible for the stipend or compensatory time off.

4.16.1 Attorney Compensatory Time Off.

- Attorneys earn twelve (12) hours of compensatory time off following each weekly rotation. Time is recorded as "compensatory time earned."

- Attorneys may request compensatory time off to use in increments of not less than one hour whenever desired, however; approval will be subject to the same department process as used for vacation requests. Compensatory time off is recorded as "compensatory time used."

- A maximum of 36 hours of compensatory time off may accrue at any one time. Unused compensatory time may be carried forward at the end of the year.

- Unused compensatory time will not be compensated, considered compensable, or credited for any purpose with the exception that it will be cashed out upon separation of employment.

4.16.2 Attorney Stipend. Attorneys may elect to receive a \$400 stipend in lieu of compensatory time off. The stipend election will be recorded on their time record following the weekly after-hours assignment.

4.17 Undersheriff Duty Staff Officer

The Undersheriff is assigned, on a rotating basis, to be available to respond at any time to significant events including but not limited to: homicides, serious injury or death of Sheriff's Office personnel, shooting incidents involving Sheriff's Office personnel, major fires, civil disturbances, and/or other significant incidents. The Duty Staff Officer acts on behalf of the Sheriff and has commensurate authority as well as responsibility for law enforcement operations during his or her assigned rotation.

To recognize the disruption caused when assigned Duty Staff Officer, and the fact that the Undersheriff is exempt from overtime and not compensated for overtime work, following the completion of each weekly rotation, the Duty Staff Officer shall be granted the choice of either a \$400 stipend or ten (10) hours of compensatory time at the straight time rate. Compensatory time earned during the Duty Staff Officer rotation must be used within the calendar year earned. Unused compensatory time cannot be cashed out. There is no eligibility for § 4.10 Emergency Response Pay during the Duty Staff Officer rotation.

4.18 Undersheriff Salary(Group E). If there is a collective bargaining agreement settlement per section 4.14 (Binding Arbitration Adjustment), salary may change during the term of this Resolution.

4.19 Posting. The most current salary addendum to this Resolution will be posted on the County's website.

Section 5. SCHEDULING (Groups A through F)

5.1 Work Schedule. The hours of operation may vary between departments and divisions in order to better serve the public.

5.2 Alternative Schedule. Alternative scheduling allows the hours and the basic workday or workweek of an employee to be modified from the department standard to attend to County business or to accommodate a different schedule. Approval of alternative scheduling for FLSA non-exempt employees shall not allow for greater than forty (40) hours of compensation in any one work week, shall provide for no reduction in service to the public, and must not increase the County's compensation costs. Alternative scheduling requires the mutual agreement of the employee and the department head. FLSA non-exempt employees may not accumulate or not take lunch and/or rest breaks in order to shorten the workday or work week.

5.3 Flex Time. Periodic flex time may be used for personal employee matters including doctor, vision or dental appointments. Flex time may also be used following an emergency response, to attend meetings, or otherwise perform work on behalf of the County. Approval of flex time for FLSA non-exempt employees shall not allow for greater than forty (40) hours of compensation in any one work week, shall provide for no reduction in service to the public, and must not increase the County's compensation costs. Flex time requires the mutual agreement of the employee and the department head or designee. FLSA non-exempt employees may not accumulate or not take lunch and/or rest breaks in order to shorten the workday or work week.

Section 6. LEAVES (Groups A through H)

6.1 Sick Leave Accruals (Groups C through G). For the purpose of sick leave benefits, sick leave shall accrue to each 1.0 FTE employee from their date of hire in the amount of eight (8) hours for each month of employment, if benefits eligibility criteria are met (section 8.1), to a maximum of nine hundred and sixty (960) hours except as outlined below.

6.1.1 Part-Time Employees. Part-time employees' sick leave accrual rate will be pro-rated per currently assigned, but not more than their budgeted FTE.

6.1.2 Sick Leave Accrual Maximum (Except Group E). Employees who have accrued nine hundred and sixty (960) hours at the end of the business day on December 31 shall be allowed to accrue up to one thousand and fifty-six (1,056) hours (960 hours + up to 96 hours annual accrual) of sick leave during the following year. These additional hours of accrual may not be cashed out. The employee's total accrual reverts back to no more than nine hundred and sixty (960) hours at the end of the business day on December 31.

6.1.3 Sick Leave Usage. Eligible employees (section 8.1) may request sick leave as accrued and may use it in increments of less than one scheduled workday for a covered purpose. (Policy [AD139400Z](#))

6.1.4 Sick Leave Verification. Following more than three consecutive days of absence, an employee may be requested to provide verification that the leave was for an eligible reason. (Policy [AD139400Z](#))

6.1.5 Excess Sick Leave Contributions (Except Group E). Employees who have at least 960 hours in their sick leave bank at the beginning and end of the calendar year (or at the beginning of a calendar year and upon termination in that same year) will receive a contribution into their 457 deferred compensation plan based upon a portion of the hours accrued but not used during the year. Sick leave hours accrued to a maximum of forty-eight (48) hours, minus hours used, multiplied by 25%, multiplied by the hourly rate at year-end, equals the 457 contribution. Employees eligible for a contribution must be enrolled in a 457 deferred compensation plan prior to February 1 of the following year (or at termination, if earlier) to receive the contribution, or the 457 contribution will be forfeited.

6.1.6 Excess Sick Leave Contributions (Group E only). Employees who have at least 960 hours in their sick leave bank the first and last pay period of the year (or at the beginning of a calendar year and upon termination in that same year) will receive a contribution into their Retirement Health Savings (RHS) plan, based upon a portion of the hours accrued but not used during the year. Sick leave hours accrued to a maximum of

forty-eight (48) hours, minus hours used, multiplied by 25%, multiplied by the hourly rate at year-end (or date of termination, if earlier) equals the RHS contribution.

6.1.7 Sick Leave for Family Care. Sick leave can be used to care for a family member. ([Policy AD139400Z](#))

6.1.8 Sick Leave Cash Out. Employees with three (3) or more years of current, continuous employment with the County shall be entitled to sick leave cash out upon voluntary separation, layoff or death in the amount of twenty-five (25%) percent, or fifty (50%) percent if hired before May 15, 1984, of accrued hours up to a maximum of 960 hours. Employees must give at least two (2) weeks' notice prior to separation to be eligible for sick leave cash out.

6.1.9 Leave Sharing Program. Employees may donate any amount of accrued sick leave or accrued vacation leave each year to employees eligible to receive leave donations. ([Policy AD139500Z](#)).

6.1.10 Sick Leave Accrual Maximum (Group E). LEOFF II employees may accrue sick leave up to a maximum of one thousand, four hundred and forty (1,440) hours. No more than nine hundred and sixty (960) hours shall be used as a base for calculating sick leave cash out. If any hours are used per section 6.1.6, such hours used in that calculation will no longer be available to the employee and will be deducted from the accrual bank.

6.1.11 Bonus Days. Employees in Group E will receive an additional 40 hours of vacation time each year if they have accrued 600 hours of sick leave on December 31 of the previous year.

6.1.12 District Court Judges. District Court Judges shall accrue sick leave at the same rate as non-represented employees per section 6.1. Additionally, pursuant to RCW 3.34.130, District Court Judges will receive thirty (30) days' annual leave each January 1. Annual leave cannot be carried forward to the next year. When a District Court Judge vacates office, the total remuneration for annual leave and sick leave shall be granted as allowed by [RCW 3.34.100](#), and shall not exceed the equivalent of thirty (30) days' monetary compensation.

6.2 Vacation (Groups C through F). Employees (except court reporters and superior court commissioners) shall be entitled to vacation accrual benefits if benefits eligibility criteria are met (section 8.1). Accruals for 1.0 FTE will be in accordance with the following schedule with the first employment year being the year hired and subsequent employment years being the first of the year. Prior regular County employment may be considered when determining employment year.

During 1st through 4th employment year	accrue 10.00 hours per month
During 5th through 9th employment year	accrue 13.34 hours per month
During 10th and subsequent years	accrue 16.67 hours per month

Vacation leave may be requested as accrued and approved and may be used in increments of less than one scheduled workday. No more than two hundred and forty (240) vacation hours may be carried forward from one year to the next; otherwise unused vacation in excess of two hundred and forty (240) hours at the end of the business day on December

31 shall be forfeited. The express purpose of vacation leave is to allow employees to take time away from work to relax, recreate and otherwise attend to personal matters. It is the policy of Whatcom County that employees shall take the regular vacation time allocated each year for the good of the employee and the County. If funds exist in the department's current budget, by mutual written agreement between the employee and the department head, up to 40 hours of vacation anticipated to be above the 240 hours carryover maximum can be cashed out each calendar year. Requests for cash out must be submitted by November 30. Upon separation, accrued vacation hours will be cashed out at 100%.

6.2.1 Part-Time Employees. Part-time employees' vacation accrual rate will be pro-rated per currently assigned, but not more than their budgeted FTE.

6.3 Holidays (Groups A through G). Whatcom County follows the [State holiday schedule](#) (RCW 1.16.050) in addition to the day before Christmas. Paid holidays will be posted on an annual basis. To receive holiday pay, employees must be in paid status or on approved voluntary unpaid furlough, the entire scheduled work day before and after the holiday.

6.3.1 Personal Holiday (Groups C through F). Employees (except court reporters and superior court commissioners) shall receive one (1) Personal Holiday each calendar year equivalent to their FTE on January 1 or upon hire, not to exceed eight (8) hours. The Personal Holiday must be used in the year it is earned. Personal Holidays are not cashed out upon separation.

6.3.2 Working a Non-Judicial Holiday. Employees required to work on a non-judicial holiday because state law requires an office to remain open, shall receive two (2) days off with pay at a mutually agreeable time. Unused compensatory time earned before December 31 shall be carried forward and must be used in the following year. Employees unable to use compensatory time by the end of the following year due to a County emergency are eligible to carry the hours forward for one additional year. Unused compensatory time earned under this provision will be cashed out upon separation of employment.

6.3.3 Working a Holiday. Employees required by their department head to work a paid County holiday because of an emergency, a project that can only be completed when County offices are closed, or special directive from the County Executive or designee, shall receive two (2) days off with pay at a mutually agreeable time. (see [Authorization for Emergency Response Stipend or Compensatory Time](#) form.) Unused compensatory time earned before December 31 shall be carried forward and must be used in the following year. Employees unable to use compensatory time by the end of the following year due to a County emergency are eligible to carry the hours forward for one additional year. Unused compensatory time earned under this provision will be cashed out upon separation of employment.

6.3.4 Part-Time Employees' Holiday Pay. Part-time employees will receive holiday pay based on their currently assigned, but not more than their budgeted FTE.

6.4 Paid Time Off (PTO) Bank (Groups A and B). Employees will, in lieu of accruing vacation, sick and personal holiday, accrue time into a Paid Time Off (PTO) bank.

6.4.1 PTO Accrual. Accrual for 1.0 FTEs will be in accordance with the following schedule with the first employment year being the year hired and subsequent employment years being the first of the year. Employees appointed to an eligible PTO paid time off position will have their accrued and available vacation and personal holiday hours placed in a PTO bank. Prior regular County employment may be considered when determining employment year. Part-time employee's monthly PTO bank accrual rates will be pro-rated based on FTE.

Group A	<u>Accrual Rate/month</u>
Upon hire and subsequent years	26.00 hours
Group B	<u>Accrual Rate/month</u>
During 1 st through 4 th employment year	21.33 hours
During 5 th and subsequent years	24.67 hours

6.4.2 Short-Term Disability Bank. Each newly eligible employee will receive a "one-time" deposit of 480 hours into a Short-Term Disability bank (STD). Part-time employee's STD bank deposits will be pro-rated based on FTE. The STD bank can be accessed only after an employee has been absent and used PTO bank hours to cover three consecutive work days for an illness or injury, for an approved Family/Medical Leave, or to provide care for a family member under Family Care or Family Leave. For each separate intermittent FMLA situation, only one period of three consecutive work days charged to PTO needs to be met each applicable 12-month period before gaining access to the STD bank. Access to the STD bank may require a physician's certification. The STD bank is not eligible for cash out at any time.

6.4.3 Sick Leave Bank. Employees in Groups C through E appointed to an eligible PTO position in Group A or B will maintain their accrued and available sick leave hours in a bank, which can be accessed only if the one-time STD bank is depleted. Upon voluntary separation, layoff or death, the sick leave bank cash out will be cashed out per section 6.1.8.

6.4.4 Paid Time Off Usage. PTO hours may only be requested as accrued and used as approved. In the event an employee needs PTO for an illness or to care for a family member, the employee should give his or her supervisor as much notice as possible.

6.4.5 Paid Time Off Bank Carryover/Cash Out. No more than 330 PTO hours at the end of the business day on December 31 can be carried over to the following calendar year; any additional hours are forfeited. If funds exist in the department's current budget, by mutual agreement among the impacted employee, the department head (if applicable) and the County Executive or designee, up to 40 hours of PTO anticipated to be above the 330 hours carry over maximum can be cashed out each calendar year. Requests for cash out must be submitted by November 30. Upon separation, hours in the PTO bank will be cashed out at 100%.

6.4.6 PTO Leave Sharing. Employees may donate any amount of Paid Time Off each year to employees eligible to receive leave donations. (Policy [AD1395000Z](#))

6.5. Jury Duty and Military Leave. Employees considered exempt under the Federal Fair Labor Standards Act (FLSA) shall have no deduction in salary for absences caused by

jury duty or annual military leave. Jury duty and military leave will be provided as described in County Policy, USERRA or state law.

6.6 Bereavement Leave. Bereavement leave shall be provided to employees, who suffer a death in the immediate family, of up to five (5) days off (maximum of forty hours) without loss in pay. Immediate family members include a spouse or State registered domestic partner, child or parent (including step) of either the employee or the employee's spouse. Up to three (3) days off without loss of pay is available for other close family members (including step): brother, sister, grandchildren or grandparents of either the employee or the employee's spouse. In the event of a funeral or other memorial occurring as a result of the death of a current, lawful brother or sister-in-law, the affected employee may have up to eight (8) hours off without loss in pay to attend the funeral or memorial, if not covered above. Additional days off without pay or using accrued leave may also be available upon written approval of the department head.

6.7 Civil Leave. Civil leave with pay shall be allowed to permit an employee to testify in any federal, state or municipal court when a subpoena compels such testimony and such testimony is on behalf of Whatcom County or is in connection with a matter in which Whatcom County is a party.

6.8 Family Leave. The County provides unpaid leave to any eligible employee covered by this Resolution, consistent with state and federal laws. Employees are not required to use accrued vacation time, sick leave, STD bank, or PTO bank before commencing unpaid family leave. If leave pursuant to FMLA stipulations would also qualify as leave under any other County benefit, policy or type of leave, the period of the FMLA leave will run concurrently as permitted by law and will apply toward an employee's entitlement for each type of leave that may be applicable.

6.8.1 Physician Certifications. The County may require physician certifications in accordance with state and federal guidelines.

6.9 Maternity Leave. Accrued sick leave or STD bank time may be utilized for maternity/disability leave. In the event sick leave and/or the STD bank is exhausted before the employee returns to work, any vacation, PTO bank, or other paid leave which has accrued must be utilized before approval of any leave without pay is considered by the County, except for leaves falling under the federal Family and Medical Leave Act or County policy. If leave pursuant to this provision would also qualify as leave under any federal or state laws, the period of leave will apply toward the employee's entitlement to leave under any applicable laws consistent with section 6.8. Unless the birth mother chooses to invoke FMLA, a birth mother's period of temporary pregnancy-related disability shall not be deducted from the FMLA leave entitlement.

6.10 Paternity Leave. Employees may use accrued sick leave for the delivery of a child by their legal spouse or to care for their legal spouse or registered domestic partner during pregnancy and/or childbirth disability consistent with the provisions of [Executive Order 2018-4](#).

6.11 Leave for Illness or Injury. Employees may request in writing, with appropriate health care provider verification, leave for major illness or injury utilizing Family/Medical Leave, accrued leaves, and unpaid leaves, as appropriate and as approved. Total time for

the leave, which will include all time away from work, may be extended up to a maximum of twelve (12) months with the mutual consent of the department head and the County Executive or designee. An employee who returns to work will be credited for length of return time to job of injury, if work related, within the twelve (12) month limit if the employee must go back on disability for the same illness/injury. Periodic health care progress reports may be required.

6.12 Domestic Violence Leave. The County provides reasonable leave to employees who are victims of, or who are family members of victims of domestic violence, sexual assault, or stalking, consistent with the requirements of the Washington Domestic Leave Law. Employees may choose to use accrued sick leave or other paid time off, compensatory time, or unpaid leave time.

6.13 WA State Paid Family and Medical Leave. The County participates in the Washington State Paid Family and Medical Leave insurance program. Employees shall coordinate leave under this program with Human Resources.

6.14 Absence Due to Adverse Weather. FLSA non-exempt employee's absence due to severe inclement weather or other unusual emergency conditions will be charged to one of the following in sequential order: compensatory time, vacation leave, paid time off, personal holiday, or leave without pay. Employees who wish to take leave without pay must notify his/her payroll preparer before the department's payroll cut-off time. (Policy [AD139010Z](#))

Section 7. ELECTED OFFICIALS

7.1 Wage Adjustments for Elected Officials. Council Members and Executive Branch Elected Officials shall be compensated as set forth by the Whatcom County Commission on Salaries for Elected Officials.

Section 8. BENEFITS (Groups A through G and Listed Elected Officials)

8.1 Benefits Eligibility. Employees must be compensated at least eighty (80) hours per calendar month and be in at least a .5 FTE position to be eligible for certain benefits (including, but not limited to, sick leave, holiday, vacation, PTO bank, STD bank, and health and welfare). Compensation is defined as payment of wages for work performed, vacation, accrued sick leave, PTO, STD, other paid leave, or income for industrial injury not to exceed twelve months. County payments of health and welfare premiums for benefits of unrepresented employees are made on behalf of employees. Compensation earned in one (1) calendar month provides health and welfare benefit coverage in the following month unless stipulated otherwise in plan documents. Lump sum cash out of accruals upon termination of employment is not considered compensable hours for any purpose of eligibility or contribution. Any elected official or newly hired unrepresented employee will be initially eligible for health and welfare benefits the calendar month following at least 80 hours of compensation in one (1) calendar month. Waiting period requirements on individual plans must be met for benefit reimbursement. Due to the nature of elected official positions, they will be eligible for health & welfare benefits on the same basis as a 1.0 FTE.

8.2 Health and Welfare Benefits. Elected officials set forth in Section 1 and eligible employees shall be granted the following health and welfare benefits. The benefits shall

include full contribution by the County for the employee, spouse, and dependent children of the employee, unless otherwise noted.

- A) Medical – Washington Teamsters Welfare Trust Plan “B”
- B) Dental – Washington Teamsters Welfare Trust Dental Plan “A”
- C) Vision – NBN Vision Plan with Washington Teamsters Welfare Trust.
- D) Life insurance –employee only coverage with Standard Life Insurance in the face amount of \$50,000.
- E) Waiver of Contributions – Washington Teamsters Welfare Trust Disability Waiver of Contributions Extension
- F) Plan D Time Loss – Washington Teamsters Welfare Trust Employee \$100 per week time loss
- G) Long-Term Disability – employee only coverage with Sunlife.

8.2.1 Part-Time Employee's Benefits Coverage. Employees will pay a pro-rated amount of the County's contribution, based on their FTE, for A. Medical, B. Dental, C. Vision, E. Waiver of Contributions, and F. Plan D Time Loss through payroll deduction utilizing the Flex 125 program. The County will pay the full contribution for D. Life Insurance and G. Long-Term Disability. (The requirement for pro-rated contributions does not apply to employees in Group G or Whatcom County Council members.)

8.3 Other Benefits.

8.3.1 Flex 125. The County will pay set-up costs and ongoing maintenance costs to allow employees to utilize a Dependent and Health Care Reimbursement Plan.

8.3.2 Retirement Plans. The County provides payment to retirement plans through the Washington State Department of Retirement Systems (DRS), which also requires contributions from eligible employees. Elected officials may elect, but are not required, to participate in a DRS plan.

8.3.3 Deferred Compensation. The County provides the opportunity for voluntary employee participation in deferred compensation (457 plans) and 401(a) programs. The County matches these contributions fifty cents on the dollar, up to a maximum of 2% of base salary, with County contributions placed in a 401(a) Plan. New employees may, within thirty (30) days of hire, elect to contribute directly to the 401(a) Plan.

8.3.4 Employee Assistance Program. The County provides confidential counseling assessment services through an Employee Assistance Program for employees and their immediate families.

8.3.5 Sheriff's Office Disability Plan (Group E). LEOFF II and PERS employees in the Sheriff's Office will be provided a substantially equivalent disability plan as that provided to employees directly reporting to them. Such employees are not eligible to participate in the Long-Term Disability Plan offered under section 8.2.G.

8.3.6 Retirement Health Savings Plan. The County provides a tax-free Retirement Health Savings Plan (RHS) to use for qualified medical expenses, in accordance with IRS regulations. The County will administer the RHS plan consistent with the County's RHS plan documents. Contribution types, which are mandatory within identified groupings of employees, may include, but are not limited to: contribution of excess sick leave; contribution of a percentage of base salary; and contribution of sick leave, vacation and/or PTO bank cash outs at voluntary separation from County employment. The County may at its discretion identify additional recognized groupings of unrepresented employees to have one or more of the existing contribution types applied.

8.3.6.1 Contribution to Retirement Health Savings Plan (Group E). Employees in Groups E have elected a voluntary reduction of 6% of their base salary to be withheld effective the first full pay period in January 2022 and placed by the County into employee's Retirement Health Savings Account.

8.3.6.1.1 Mandatory Contributions. When an employee in Group E separates from employment, sick leave cash out, per section 6.1.8 and vacation cash, out per Section 6.2 will be mandatorily contributed to his or her Retirement Health Savings account.

8.3.7 Clothing Repair & Replacement. Employees, who, in the course of pursuing their assignments, suffer a loss or substantial damage to clothing, excluding normal wear and tear, shall be reimbursed the reasonable cost for the repair or replacement of like items at a rate commensurate with the condition of the claimed item. Personal property shall be repaired or replaced up to \$35.00 per item.

8.3.8 Electronic Funds Transfer. All newly hired regular employees shall authorize paycheck deposit by electronic funds transfer (EFT) within thirty (30) days of employment. Employees may temporarily stop EFT in emergency situations with at least seven (7) days' notice before a scheduled payday, but must restart EFT within three months.

Section 9. POLICY OR PROVIDER CHANGES

From time to time, the County may change provisions in this Resolution or select different providers of benefits, which may impact plans offered. Nothing in this document shall limit the County's ability to change any provision in this Resolution or to search for the most cost-effective benefit packages, nor shall it commit the County to selecting any specific provider or plan.

Section 10. EFFECTIVE DATE

All changes in benefits under this Resolution shall become effective January 1, 2022. Salaries and benefits shall remain in effect until rescinded, except where noted otherwise, and except that any further changes may be retroactively applied as approved by the County Council.

AND FURTHER, THEREFORE, BE IT RESOLVED, that Resolution No. 2020-046 is hereby rescinded effective January 1, 2022 and this Resolution shall become effective that same date.

APPROVED this 9th day of November, 2021.


ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED as to form:


45693

Civil Deputy Prosecuting Attorney

Addendum A

2022 Salary Matrix for Unrepresented Employees

Group A - Department Head Salary Matrix - Effective January 9, 2022 (+3.0%)

Range	12 months of service at each step required to move to next step								36 months of service at each step required to move to next step				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13
500	9,639	10,012	10,394	10,798	11,214	11,646	12,094	12,557	13,043	13,065	13,092	13,121	13,149
500.1*	9,761	10,134	10,516	10,919	11,336	11,767	12,216	12,679	13,165	13,187	13,213	13,243	13,271
510	10,053	10,441	10,844	11,259	11,692	12,143	12,609	13,093	13,598	13,619	13,647	13,676	13,704
515	10,269	10,665	11,077	11,501	11,943	12,404	12,880	13,374	13,891	13,912	13,941	13,970	13,999
520	10,483	10,885	11,306	11,742	12,195	12,664	13,149	13,653	14,180	14,201	14,229	14,258	14,286
525	10,709	11,119	11,549	11,994	12,457	12,936	13,432	13,947	14,484	14,507	14,535	14,564	14,593
530	10,939	11,358	11,795	12,250	12,721	13,211	13,719	14,244	14,790	14,812	14,840	14,869	14,897

*Range 500.1 - Supplemental Compensation Replacement

Group B - Management Salary Matrix - Effective January 9, 2022 (+3.0%)

Range	12 months of service at each step required to move to next step								36 months of service at each step required to move to next step				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13
400	6,111	6,348	6,593	6,850	7,115	7,393	7,678	7,976	8,284	8,307	8,334	8,365	8,394
405	6,368	6,620	6,875	7,142	7,419	7,708	8,007	8,315	8,639	8,661	8,689	8,719	8,748
410	6,641	6,900	7,167	7,447	7,734	8,033	8,345	8,667	9,004	9,026	9,054	9,085	9,114
415	6,925	7,195	7,475	7,765	8,064	8,378	8,701	9,037	9,387	9,410	9,438	9,468	9,496
420	7,221	7,502	7,793	8,094	8,411	8,733	9,070	9,420	9,783	9,806	9,833	9,863	9,892
425	7,531	7,825	8,127	8,440	8,767	9,107	9,459	9,821	10,202	10,224	10,252	10,282	10,312
425.1*	7,836	8,130	8,432	8,745	9,071	9,411	9,763	10,125	10,506	10,528	10,556	10,587	10,616
430	7,853	8,159	8,474	8,801	9,141	9,495	9,861	10,241	10,637	10,659	10,687	10,717	10,746
435	8,192	8,507	8,839	9,179	9,533	9,903	10,283	10,678	11,091	11,114	11,142	11,173	11,202
440	8,541	8,874	9,216	9,573	9,942	10,324	10,721	11,134	11,563	11,586	11,614	11,644	11,674
445	8,907	9,252	9,609	9,981	10,364	10,763	11,179	11,608	12,055	12,078	12,106	12,136	12,166
450	9,288	9,648	10,020	10,404	10,807	11,224	11,655	12,105	12,570	12,592	12,620	12,651	12,680

*Range 425.1 - Supplemental Compensation Replacement

Group C - Professional/Supervisory Salary Matrix - Effective January 9, 2022 (+3.0%)

Range	12 months of service at each step required to move to next step								36 months of service at each step required to move to next step				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13
300	4,421	4,600	4,784	4,971	5,165	5,369	5,577	5,793	5,973	5,996	6,023	6,053	6,079
305	4,611	4,799	4,988	5,183	5,386	5,597	5,814	6,039	6,228	6,252	6,280	6,312	6,339
310	4,805	5,003	5,200	5,404	5,615	5,837	6,063	6,297	6,493	6,518	6,546	6,577	6,604
315	5,013	5,219	5,423	5,633	5,854	6,083	6,318	6,562	6,765	6,789	6,817	6,849	6,877
320	5,228	5,440	5,653	5,875	6,101	6,344	6,587	6,842	7,054	7,078	7,106	7,137	7,165
325	5,453	5,672	5,894	6,124	6,362	6,613	6,870	7,134	7,357	7,382	7,410	7,441	7,468
330	5,684	5,915	6,147	6,385	6,632	6,891	7,160	7,434	7,665	7,690	7,718	7,749	7,777
335	5,928	6,169	6,409	6,657	6,916	7,184	7,463	7,752	7,992	8,016	8,044	8,076	8,104
340	6,182	6,430	6,682	6,941	7,210	7,492	7,782	8,082	8,332	8,356	8,384	8,416	8,444
345	6,447	6,704	6,965	7,235	7,518	7,810	8,110	8,422	8,683	8,707	8,734	8,766	8,794
350	6,721	6,990	7,265	7,547	7,840	8,143	8,455	8,781	9,052	9,076	9,104	9,136	9,163
355	7,009	7,289	7,574	7,866	8,172	8,489	8,817	9,157	9,439	9,462	9,490	9,522	9,550
360	7,310	7,603	7,898	8,204	8,519	8,852	9,192	9,545	9,839	9,862	9,890	9,922	9,950
365	7,622	7,926	8,234	8,554	8,884	9,228	9,584	9,952	10,258	10,282	10,310	10,342	10,370
370	7,949	8,266	8,588	8,920	9,263	9,623	9,994	10,379	10,696	10,721	10,749	10,781	10,809
375	8,288	8,622	8,954	9,300	9,660	10,035	10,420	10,820	11,152	11,176	11,205	11,236	11,263
380	8,644	8,991	9,339	9,699	10,072	10,464	10,865	11,283	11,629	11,653	11,681	11,713	11,739

Group D - Support Salary Matrix - FLSA Non-Exempt - Effective January 9, 2022 (+3.0%)

Range	12 months of service at each step required to move to next step									24 mos of service	36 months of service at each step required to move to next step			
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13	Step 14
200	3,189	3,317	3,456	3,599	3,741	3,892	4,045	4,201	4,366	4,453	4,477	4,504	4,536	4,564
210	3,325	3,459	3,601	3,750	3,897	4,054	4,213	4,380	4,553	4,642	4,666	4,694	4,726	4,754
220	3,464	3,605	3,755	3,908	4,062	4,225	4,391	4,561	4,740	4,833	4,857	4,885	4,917	4,945
230	3,613	3,761	3,917	4,078	4,236	4,405	4,577	4,756	4,945	5,042	5,066	5,094	5,125	5,153
240	3,768	3,923	4,082	4,249	4,415	4,592	4,770	4,955	5,150	5,251	5,274	5,302	5,334	5,362
250	3,927	4,089	4,255	4,431	4,604	4,787	4,973	5,165	5,369	5,475	5,498	5,526	5,558	5,586
260	4,095	4,263	4,436	4,616	4,799	4,989	5,184	5,385	5,596	5,706	5,731	5,759	5,790	5,818
270	4,444	4,618	4,806	4,995	5,190	5,396	5,604	5,821	6,050	6,228	6,252	6,280	6,312	6,339
280	4,635	4,817	5,013	5,210	5,413	5,628	5,845	6,071	6,310	6,496	6,521	6,550	6,583	6,611
290	4,835	5,024	5,228	5,434	5,646	5,870	6,096	6,332	6,581	6,775	6,801	6,832	6,866	6,896

Group E - Sheriff's Binding Arbitration Adjustment Salary Matrix¹
Effective January 9, 2022 (+3.0%)

Range	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
690	10,188	10,592	11,009	11,444	11,879	12,332	12,801	13,286	13,778

Yrs of Service	%	Hourly Rate	Longevity
6	2.00%	\$44.49	\$0.89
9	3.00%	\$44.49	\$1.33
12	3.50%	\$44.49	\$1.56
15	4.00%	\$44.49	\$1.78
18	4.50%	\$44.49	\$2.00
21	5.00%	\$44.49	\$2.22
24	6.00%	\$44.49	\$2.67

¹If there is a collective bargaining agreement settled per Section 4.14 salaries may change during the term of this resolution.

Group F - Court Reporters & Health Officer Salary Matrix - Effective January 9, 2022 (+3.0%)

Range	12 months of service at each step required to move to next step								36 months of service at each step required to move to next step				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13
801	7,083	7,090	7,098	7,106	7,114	7,123	7,131	7,139	7,149	7,173	7,200	7,232	7,260
802	8,491	8,499	8,507	8,515	8,523	8,533	8,541	8,550	8,560	8,585	8,613	8,646	8,675

Group G - Court Commissioner Salary Matrix²

Range	7/1/2021	7/1/2022	
903	14,976	15,238	(90% of Superior Court Judge Salary)
904	13,467	13,702	(85% of District Court Judge Salary)

²Salaries are set by the Washington Citizens' Commission on Salaries for Elected Officials.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-653

File ID:	AB2021-653	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	THelms@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Interlocal		
Assigned to:	Council Finance and Administrative Services Committee			Final Action:	
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: Tschroed@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request authorization for the County Executive to enter into a three year interlocal agreement among Whatcom County and the Port of Bellingham and City of Bellingham to provide economic development services and complete special projects that promote beneficial outcomes for the parties, in the amount of \$2,084,322

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached documents

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Routing Form, Contract

WHATCOM COUNTY CONTRACT INFORMATION SHEET

Whatcom County Contract No. _____

Originating Department: _____	
Division/Program: (i.e. Dept. Division and Program) _____	
Contract or Grant Administrator: _____	
Contractor's / Agency Name: _____	
<p>Is this a New Contract? If not, is this an Amendment or Renewal to an Existing Contract? Yes No</p> <p>Yes No If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #: _____</p> <p>Does contract require Council Approval? Yes No If No, include WCC: _____</p> <p>Already approved? Council Approved Date: _____ (Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)</p> <p>Is this a grant agreement?</p> <p>Yes No If yes, grantor agency contract number(s): _____ CFDA#: _____</p> <p>Is this contract grant funded?</p> <p>Yes No If yes, Whatcom County grant contract number(s): _____</p> <p>Is this contract the result of a RFP or Bid process? Contract</p> <p>Yes No If yes, RFP and Bid number(s): _____ Cost Center: _____</p> <p>Is this agreement excluded from E-Verify? No Yes If no, include Attachment D Contractor Declaration form.</p> <p>If YES, indicate exclusion(s) below:</p> <p><input type="checkbox"/> Professional services agreement for certified/licensed professional.</p> <p><input type="checkbox"/> Contract work is for less than \$100,000. <input type="checkbox"/> Contract for Commercial off the shelf items (COTS).</p> <p><input type="checkbox"/> Contract work is for less than 120 days. <input type="checkbox"/> Work related subcontract less than \$25,000.</p> <p><input type="checkbox"/> Interlocal Agreement (between Governments). <input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.</p>	
<p>Contract Amount:(sum of original contract amount and any prior amendments):</p> <p>\$ _____</p> <p>This Amendment Amount:</p> <p>\$ _____</p> <p>Total Amended Amount:</p> <p>\$ _____</p>	<p>Council approval required for; all property leases, contracts or bid awards exceeding \$40,000, and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when:</p> <ol style="list-style-type: none"> 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance. 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.
Summary of Scope: _____	
Term of Contract: _____	
Expiration Date: _____	

Contract Routing:	1. Prepared by: _____ 2. Attorney signoff: _____ 3. AS Finance reviewed: _____ 4. IT reviewed (if IT related): _____ 5. Contractor signed: _____ 6. Submitted to Exec.: _____ 7. Council approved (if necessary): _____ 8. Executive signed: _____ 9. Original to Council: _____	Date: _____ Date: _____ Date: _____ Date: _____ Date: _____ Date: _____ Date: _____ Date: _____
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**INTERLOCAL COOPERATION AGREEMENT
BETWEEN
WHATCOM COUNTY, THE CITY OF BELLINGHAM, AND THE
PORT OF BELLINGHAM, REGARDING A COORDINATED
APPROACH TO FUNDING COUNTY WIDE ECONOMIC
DEVELOPMENT AND CONTRACTING WITH WESTERN
WASHINGTON UNIVERSITY (WWU) SMALL BUSINESS
DEVELOPMENT CENTER (SBDC).**

This Interlocal Cooperation Agreement (the “**Agreement**”) is made and entered into this day by and between Whatcom County, (the “**County**”), the City of Bellingham, (the “**City**”), and the Port of Bellingham (the “**Port**”); The County, City, and Port may be individually referred to as a “**Party**” and collectively referred to as the “**Parties**”.

WHEREAS, the Parties have separately undertaken economic development activities in Whatcom County, including contracting with various service providers to deliver business start-up, retention, recruitment, expansion and related services; and

WHEREAS, in 2011 the Parties successfully joined their funding resources on a multi-year basis to increase efficiency in coordination and focus on the outcomes expected by the Parties; and

WHEREAS, the Parties have jointly and continually agreed to fund the WWU SBDC since 2011; and

WHEREAS, in 2015 the Parties jointly decided to market Whatcom County including the creation of the “CHOOSE WHATCOM” website; and

WHEREAS, the Parties wish to continue their collaboration to fund the WWU SBDC, maintain and enhance the “CHOOSE WHATCOM” Website and provide economic development services and marketing efforts that create beneficial outcomes to the parties; and

WHEREAS, the funding commitments are apportioned with the knowledge the County will utilize the County Public Utilities Improvement Fund as allowable through RCW 82.14.370 to support the County funding contribution; and

WHEREAS, since 2012, the County has designated the Port to be the lead economic development agency for Whatcom County serving as the Associate Development Organization with the State of Washington Department of Commerce; and

WHEREAS, pursuant to RCW 53.08.245, the Port has broad authority to engage in economic development activity; and

WHEREAS, pursuant to RCW Chapter 39.34 the Parties desire to enter into this Agreement to continue the commitment of funding to the WWU SBDC and the expanded Port economic development department, which began in 2018. The Port will use innovative techniques to retain and expand existing business, recruit businesses, support business start-ups and develop training and technology partnerships with the university, colleges and NW Workforce and other economic partners to foster competitive job skills and encourage living wage job markets throughout the County. The Port will in addition develop the Comprehensive Economic Development Strategy for Whatcom County (CEDS).

NOW, THEREFORE, it is agreed by and between the Parties as follows:

1.

1. ADMINISTRATION. The Parties designate the Port as the administrator pursuant to this Agreement. Administrative duties include maintaining an economic development office, economic development staff and benefits, management of contracts, coordination of marketing efforts, receipts and dispersal of funds, and communication to Port, County and City representatives. The Port will follow the Port policies with regard to contracting for services or consultants.

2. SERVICES. The parties agree that for the purposes of this agreement economic development services include but are not limited to:

- a) Business retention
- b) Business expansion
- c) Assistance to start-up
- d) Business recruitment
- e) Asset and capacity building to support the above
- f) Develop training and technology partnerships
- g) Serve as conduit and liaison for Economic Development via the Choose Whatcom Website
- h) Create and implement countywide strategic planning and vision for economic development for the entire region (CEDS)
- i) Serve on Economic Development Investment Board

3. REPORTING. The Port will report to the Parties on a quarterly basis regarding services provided pursuant to items in section #2 listed above. Reporting metrics will be evaluated and adjusted as the Program matures over the next year.

4. FINANCIAL COMMITMENTS. The County, the City and the Port will include an economic development services line item in their respective 2022, 2023 and 2024 budgets. Contingent upon budget approval from each Party, an amount up to the following contribution levels will be made:

	2022	2023	2024
City of Bellingham	\$97,139	\$100,053	\$103,055
Port of Bellingham	\$635,681	\$642,300	\$610,446
Whatcom County	\$708,165	\$677,910	\$698,247
ADO Grant*	\$110,627	\$110,627	\$110,627
Total:	\$1,551,612	\$1,530,890	\$1,522,375

* Estimated state grant amount, subject to State Legislative approval.

The Port will allocate funding to the following general expense categories in 2022. This funding breakdown will be reevaluated and adjusted as the program grows and matures.

2022 Economic Development Budget

Operating Expenses

Salaries and Benefits - 4FTE	\$531,121
Incidental meeting expenses	\$10,000
Promotional Hosting	\$15,000
Insurance and Claims	\$6,232
Marine Trades Promotion	\$20,000
Rent	\$19,079
Telephone and Communications	\$4,500
Equipment Rental	\$2,500
Office Supply	\$3,000
Postage	\$500
Subscriptions	\$1,000
Legal	\$35,000
Employee Training	\$7,500
Travel	\$25,000
Total	\$680,432

Marketing

Local Event Sponsorship	\$30,000
Advertising	\$30,000
Miscellaneous	\$500
ACF Support	\$65,200
Total	\$125,700

Special Projects - Updated Annually

County Wide GIS Infrastructure Studies phase 2	\$50,000
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Memberships and Dues

WCOG	\$25,677
Sustainable Connections	\$1,500
WBA	\$1,000
WEDA	\$1,000
IEDC	\$1,100
SBOT	\$850
Whatcom Housing Alliance	\$2,000
NW Recreation	\$1,000
Downtown Partnership	\$1,200
NW Innovation Resource Center	\$1,500
Technology Alliance Group (TAG)	\$2,500
Clean Tech Alliance	\$500

Chambers

Bellingham	\$2,000
Blaine	\$500
Lynden	\$300
Birch Bay	\$300
Ferndale	\$300
Sumas	\$100
Mt. Baker	\$150
Everson	\$100
Pt. Roberts	\$100

Total	\$43,677
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Outside Services

Tourism	\$9,000
Whatcom Prospector	\$4,000
Small Cities	\$100,000
Choose Whatcom Website	\$1,000
SBDC	\$278,203
Research/Special Projects	\$30,000
GIS Licensing	\$2,100
Marketing Materials	\$30,000
Livestories for CEDS	\$7,500
Broadband	\$190,000

Total	\$651,803
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TOTAL EXPENDITURES	\$1,551,612
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5. INVOICES

WWU SBDC: All WWU SBDC invoices must be consistent with the contract and approved by the Parties listed under section 10. Once approved, the Port will pay the invoice and forward the same to the County and the City for reimbursement. The County, the City and the Port shall provide the aggregate reimbursement for all payments quarterly within 30 days upon receipt of invoice by Port.

STAFF, OFFICE, ADVERTISING AND OUTSIDE SERVICES EXPENSES:

The Port will bill the City and the County quarterly in accordance with the budget in section 5, and future amendments.

6. EFFECTIVE DATE AND TERM. The Agreement shall be effective immediately upon its execution by all Parties. This Agreement shall continue in full force and effect until December 31, 2024. Then, in the event that funds remain in the account for this Agreement and all debts have been paid, the funds will be returned to the Parties in proportion to their contribution. The Port will submit a report to all Parties containing the amount of residual Fund Balance at the end of each calendar year.

7. WITHDRAWAL OF PARTIES. Any Party may withdraw from this Agreement by providing thirty (30) days written notice to the other parties. However, any Party withdrawing shall remain responsible for its prorated share of any payments due the WWU SBDC and Port for contracts executed prior to the receipt of the notice by the Port.

8. NEW PARTIES. The Parties may allow additional public agencies (as the term is defined in RCW 39.34.020) to become parties to this Agreement subject to such terms and conditions as they unanimously agree.

9. SURVIVABILITY: All covenants, promises and performance which are not fully performed as of the date of termination shall survive termination as binding obligations.

10. NOTICES: All notices, demands, requests, consents and approvals which may, or are required to be given by any party to any other party hereunder, shall be in writing and shall be deemed to have been duly given if delivered personally, sent by facsimile, sent by a nationally recognized overnight delivery service, or if deposited in the United States mail and sent by registered or certified mail, return receipt requested, postage prepaid to:

. the

The County: Tyler Schroeder
Whatcom County Executive Office
311 Grand Ave
Bellingham, WA 98225

The City: Tara Sundin
City of Bellingham
210 Lottie St.
Bellingham, WA 98225

The Port: Don Goldberg
Port of Bellingham
1801 Roeder Avenue
Bellingham, WA 98225

or to such other address as the foregoing parties hereto may from time-to-time designate in writing and deliver in a like manner. All notices shall be deemed complete upon actual receipt or refusal of the intended recipient to accept delivery. Facsimile transmission of any signed original document, and retransmission of any signed facsimile transmission shall be the same as delivery of an original document.

11. AMENDMENT: No modification, termination or amendment of this Agreement may be made except by written agreement signed by all parties, except as provided herein.

12. WAIVER: No failure by any of the foregoing parties to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, shall constitute a waiver of any such breach or any other covenant, agreement, term or condition.

13. NEUTRAL AUTHORSHIP: Each of the provisions of this Agreement has been reviewed and negotiated, and represents the combined work product of all parties hereto. No presumption or other rules of construction which would interpret the provisions of this Agreement in favor of or against the party preparing the same shall be applicable in connection with the construction or interpretation of any of the provisions of this Agreement.

14. PUBLIC RECORDS ACT. All records received by any Party, pursuant to this Agreement shall be a public record and therefore subject to the Public Records Act.

15. ENTIRE AGREEMENT: The entire agreement between the parties hereto is contained in this Agreement, and this Agreement supersedes all of their previous understandings and agreements, written and oral, with respect to this transaction. This Agreement may be amended only by written instrument executed by the parties subsequent to the date hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year according to the signatures below.

EXECUTED THIS _____ day of _____, 2021.

CITY OF BELLINGHAM

Seth Fleetwood
Mayor

Attest:

Finance Director

Approved as to form:

Office of the City Attorney

EXECUTED this ____ day of _____, 2021.

WHATCOM COUNTY

Satpal Sidhu
County Executive

Approved as to form:

Sr. Civil Deputy Prosecuting Attorney

EXECUTED THIS ____ day of _____, 2021.

PORT OF BELLINGHAM

Rob Fix
Executive Director



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-657

File ID:	AB2021-657	Version:	1	Status:	Agenda Ready
File Created:	11/01/2021	Entered by:	DBrown@co.whatcom.wa.us		
Department:	Council Office	File Type:	Presentation		
Assigned to:	Council Planning and Development Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: DBrown@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Presentation by City of Bellingham Planning and Community Development Department regarding regulations for detached accessory dwelling units (DADUs) and accessory dwelling units (ADUs)

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Presentation by Greg Aucutt, City of Bellingham Planning and Community Development Department, regarding regulations for detached accessory dwelling units (DADUs) and accessory dwelling units (ADUs). The County Council's Planning and Development Committee requested a presentation from the City of Bellingham Planning and Community Development Department on current DADU and ADU regulations

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-647

File ID:	AB2021-647	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Discussion		
Assigned to:	Council Planning and Development Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: cstrong@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion of amendments to the WCC regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Discussion of an Ordinance to adopt amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Report, Proposed Ordinance, Exhibit A, Map of Facilities

Whatcom County Planning & Development Services Staff Report

Proposed Amendments to WCC Title 20 (Zoning) Regulating the Production, Processing, and Retail Sales of Recreational Marijuana in Whatcom County and Repeal of Ordinance No. 2021-066 (Marijuana Moratorium)

I. File Information

File #: PLN2021-00009

File Name: Marijuana Regulations

Project Summary: Proposed amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County.

Applicant: Whatcom County Planning and Development Services (PDS)

Location: Countywide.

Recommendations:

- Planning Commission – Approve
- Planning and Development Services – Approve

Attachments:

- Draft Ordinance
- Exhibit A – Proposed Amendments

II. Background

On November 6, 2012, Initiative 502 was passed by the voters of the State of Washington, amending Chapter 69.50 RCW and providing the regulatory framework for marijuana producers, processors, and retailers to become licensed by the Washington State Liquor Control Board (“WSLCB”).

On November 16, 2013, the WSLCB adopted final marijuana licensing rules as codified in Chapter 314-55 WAC. During the period between November 18, 2013 and December 20, 2013, the WSLCB accepted marijuana license applications for marijuana production, processing and retail facilities. Whatcom County began receiving notifications of proposed marijuana facilities from the WSLCB in mid-December, 2013, and the WSLCB anticipated issuing marijuana producer, processor, and retail licenses to qualified applicants starting in late February or March, 2014.

On January 16, 2014, the Washington State Attorney General issued an opinion stating that Initiative 502 does not preempt counties from banning or placing additional regulatory requirements on marijuana related businesses within their jurisdictions.

During the licensing application window between November 18, 2013, and December 20, 2013, the WSLCB accepted approximately 228 recreational marijuana producer, processor and/or retail license applications for unincorporated Whatcom County. Whatcom County soon after began receiving notifications from the WSLCB of those applicants and applied to locations. The Prosecuting Attorney and

PDS had at the time implemented a zoning interpretation policy, which stated that PDS would regulate marijuana proposed uses, as allowed by Initiative 502 in the same way as any other commodity that is grown, processed, or sold in Whatcom County. However, it became evident that many of those proposed locations could conflict with other surrounding uses.

On February 11, 2014, the Whatcom County Council adopted Ordinance 2014-011, an emergency ordinance imposing a moratorium on the acceptance of all building and/or land use applications that pertain to marijuana producers, processors, retailers and medical marijuana collective gardens.

On March 31, 2015, the Whatcom County Council adopted Ordinance 2015-006, which contains the current County zoning regulations for recreational marijuana type uses. The regulations allowed for the production (as a permitted use) and processing (as an administrative approval use) of marijuana in the Rural, Rural Forestry, Agriculture, Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts, subject to a proposed facility meeting several stated use standards. Such standards include odor controls (for indoor grows), lighting, traffic and parking control measures, as well as setbacks of 1,000 feet from community centers and 300 feet from residences not located on the same property.

When Whatcom County's regulations were first adopted, the County Council chose to treat marijuana production like any other agricultural endeavor, as most of the applicants were small businesses. However, as no new state licenses are being issued it seems that more recently larger operators (with more capital) are buying up the earlier licenses and expanding operations or changing locations.

Earlier this year both the Commission and the Council received numerous complaints from citizens neighboring certain of the marijuana production and processing facilities. Issues raised included odor, lighting, and excessive water usage. As of 4/27/2021, there were 2 licensed (only) producers, 4 licensed (only) processors, 29 licensed (combo) producers/processors, and 12 licensed retailers of marijuana in unincorporated Whatcom County (see attached map, which also indicates how many are in each zoning district). (For a comparison of the numbers of producers in other counties, see Figure 1, below.) It should be noted that the majority of complaints arise from only a couple of Whatcom County producers; the majority of the operations are complying with the regulations and not causing problems.

Based on those citizen complaints, the Planning Commission recommended, and the Council adopted, an interim 6-month moratorium on accepting applications for outdoor marijuana production and/or processing facilities (Ord. 2021-018, 4/6/21). On April 20th the Council expanded that moratorium to further clarify that "outdoors" for purposes of the moratorium includes production on open land; in non-rigid greenhouses (i.e., hoop houses); in greenhouses with rigid walls, a roof, and doors; and similar type greenhouse structures (Ord 2021-023). That moratorium would have expired on November 7, 2021. However, on October 26, 2021, the Council extended that moratorium for another six months.

The Council also placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to:

"Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan."

Thus, the Planning Commission held two public workshops and with staff assistance developed the proposed amendments to the County's recreational marijuana land use regulations discussed below. On October 14th they held a public hearing and voted 5-2-0 to approve the amendments shown in Exhibit A.

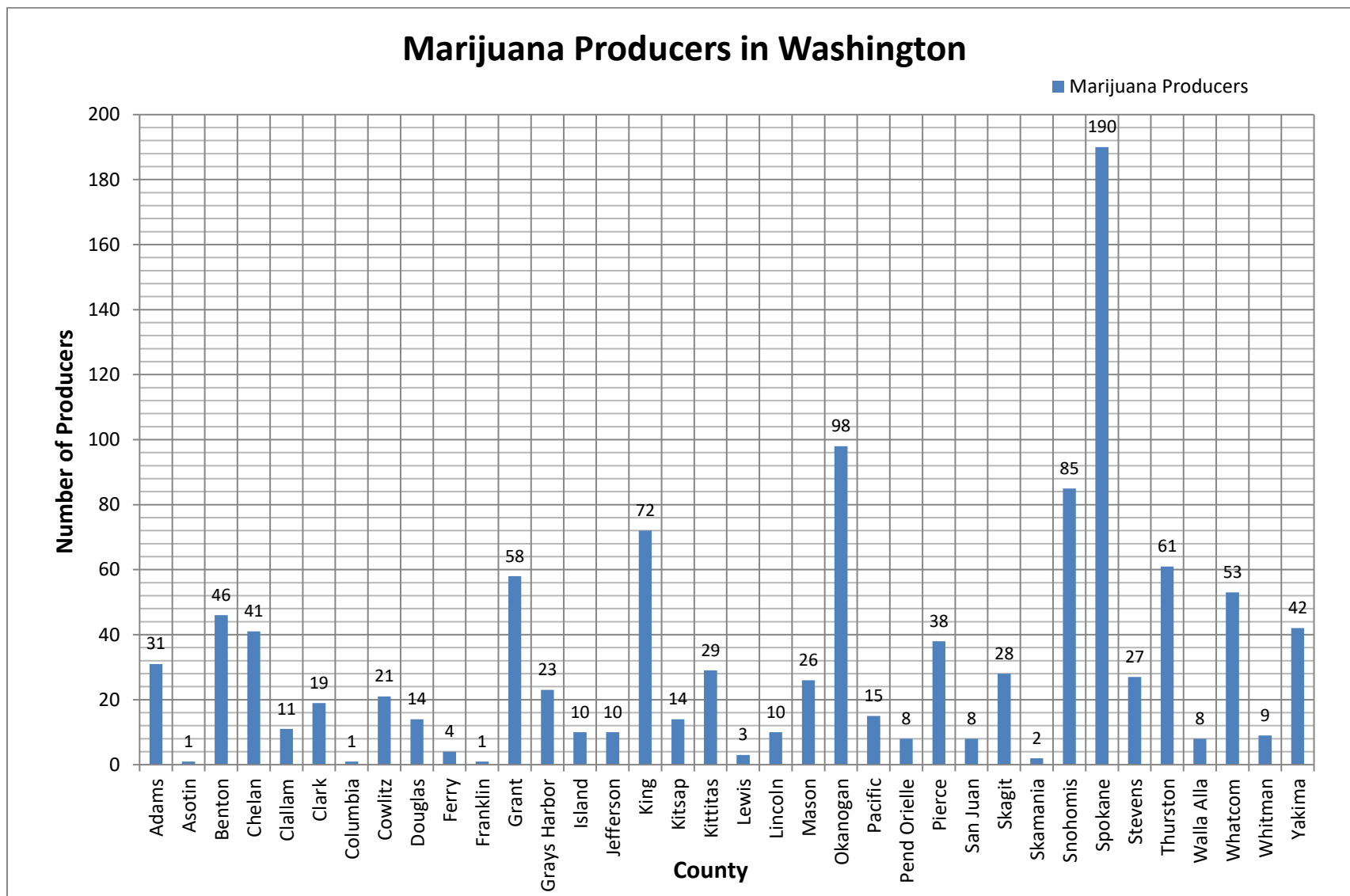


Figure 1. Number of marijuana producers in WA State counties (LCB data, Aug 2021).

III. Proposed Amendments

The proposed amendments are found in Exhibit A. Please refer to that attachment; explanations are provided therein. Tables 1 and 2

Table 1. Summary of Existing Marijuana Rules

	Zone Requirements						Supplemental Requirements (Applies in all zones)											
Type	Zone	Permit Type	Distance req't	Lot Size	Accessory Use	Odor	Odor	Lighting	Traffic	Parking	Character	Max. Employees						
Production	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence	If land is < 4.5 ac then facility limited to 2,000 sf			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking	Must be compatible with area's character	N/A						
	RF	P																
	A	P																
	RIM	P			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors													
	LII	P																
	HII	P																
Processing	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ¹	If land is < 4.5 ac then facility limited to 2,000 sf ²	Must be accessory to production	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking		10						
	RF	P	Not w/in 300' of an offsite residence ¹									10						
	A	P	Not w/in 1,000' of a community center ¹									20						
	RIM	P										10						
	LII	P										10						
	HII	P										10						
	Retail	STC	P		Limited to 2,500 sf													
		NC	P															
RGC		P																
GC		P																

Table 2, below, also provide summaries of the existing and proposed regulations, respectively. Following, however, is a list of proposed policy changes.

“Marijuana Production Facilities” Definition (§20.97.227)

The terms “outdoor” and “indoor” production facilities are being relabeled as Type 1 and Type 2 Marijuana Production Facilities. The reason is that the difference between outdoor and indoor in terms of structure type is confusing, given that greenhouses and other such structures are a little of both. What seems to really matter—in terms of how many grow cycles one can obtain, and thus how often flowering marijuana produces the objectionable odor—is whether artificial lighting is used to aid in the growth cycle, as that extends growing and flowering cycles to several. Testimony from producers indicated that without artificial lighting a producer can only obtain one growth cycle here in Whatcom County.

One proviso is that producers have commented that even if they are small scale and don’t use artificial lighting for most production they still need at least one small structure (a.k.a, “headhouse” or “mother room”) in which they can overwinter¹ the plants. So the proposed definition of a Type 1 facility allows one small structure with artificial lighting for overwintering plants.

Locations for Type 1 (“Outdoor”) vs. Type 2 (“Indoor”) Production

The Planning Commission was averse to prohibiting outdoor production entirely, in particular because it uses less energy and is less costly for small start-ups. But they did want to limit the size of outdoor production in the zones that typically have more residential uses (i.e., Rural and Agriculture) as one way to reduce odor impacts (most odor complaints have arisen around the larger (Tier 3) hybrid² facilities in the Rural district).

Thus, the draft regulations propose to:

- a) Allow Type 1 facilities only in the Rural and Agricultural districts and limit the area of production facilities to a maximum of 1 and 2 acres, respectively, (§20.80.690(2)(a)); and
- b) Allow Type 2 facilities only in the Rural (with a facility size limit of 1 acre) and industrial (RIM, LII, & HII) districts (with no facility size limit).

(Note: Lot coverage standards for each district also place a limit on the total square footage of structures on a lot commensurate with the lot size.)

Use and Permit Requirements

As a way to further reduce externalities the Commission wanted to require permits that have more public process. Thus, rather than being a Permitted use in most zones as they are currently, the following is proposed:

- In the Rural and Agriculture districts Type 1 production and processing should be an Administrative Approval Use (requiring public notice, written comments, and decision by staff);
- In the Rural district Type 2 production should be a Conditional Use (requiring public notice and a public hearing and decision by the Hearing Examiner).

¹ According to one knowledgeable producer overwintering plants is part, but only part, of the purpose of the headhouse. Their primary purposes are 1) the preservation of genetics and 2) the propagation of new plants.

² Moving plants between and using both artificial and natural lighting (or indoor and outdoor) so as to achieve more growing cycles.

- In the Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts Type 1 production should not be allowed (as these zones are intended for industrial type development and higher wage job creation) but Type 2 production and processing should be allowed as a Permitted Use.
- Additionally, neither marijuana production nor processing should be allowed in the Rural Forestry district, as this zone is intended to protect such lands for forest production and forestry jobs. Currently there are no production or processing facilities located in this district.

Lighting

One of the other externalities from outdoor grow operations people have complained about is the excessive lighting coming from grow lights in transparent and semi-transparent structures (i.e., green- and hoop-houses). Additionally, growing seasons can be extended to up to 3-4 cycles by using artificial lighting, extending the odiferous periods significantly.

For outdoor fixtures (security lights, etc.), lighting impacts can be mitigated by requiring the installation and use of down-shielding. For facilities using artificial lighting in their growth cycles, lighting impacts can be mitigated by requiring the installation and use of blackout shades. Such language has been included in the draft amendments (§20.80.690(3)(a)).

Odor

Odor from Type 2 (“indoor”) production can be controlled through the installation and use of ventilation and odor control systems, and such language has been included in the draft amendments (§20.80.690(3)(g)(ii)). And though language has been included stating that odor from any production facility cannot be detectable at or beyond the property boundaries at a level that causes a public nuisance (§20.80.690(3)(g)(i)), odor from Type 1 facilities cannot be controlled the same as with Type 2 production facilities. However, it is understood that Type 1 production can generally only obtain one growth cycle, so the time and duration of odors from these facilities should be limited. Additionally, it can be significantly reduced in time and duration through the other regulations the Commission recommends, as discussed herein.

Limit on Number of LCB Licenses per Lot

As a way of preventing multiple businesses from operating on the same lot or from one business buying additional LCB licenses and stacking multiple licenses to create larger scale, more intensive operations, the Commission proposes to limit operations to one production and/or processing license(s) per lot in the more residential districts. Thus, such language has been included in the draft regulations for the Rural and Agriculture districts. (§20.80.690(2)(d))

Setbacks/Separation Requirements

Currently production in the Rural, Rural Forestry, and Agriculture districts requires a 1,000’ separation (measured from property lines) from community centers³ and a 300’ setback (measured from

³ Defined in Title 20 as “land and/or building(s) owned by a public agency or private nonprofit entity used for social, civic, educational, religious, or recreational purposes, which serves mainly the community where located; including but not limited to community halls and centers, grange halls, senior citizen centers, teen centers, youth clubs, field houses, and churches. The facilities are available for occasional public meetings. They may also have the minimal kitchen facilities required for occasional banquets. Private clubs as defined in this title are not included.”

structures) from existing off-site residences⁴. For processing the same rule applies in the Rural district, but only the 300' setback from residences applies in the Rural Forestry district, and the 1,000' setback from community centers in the Agricultural district. The Commission expressed no interest in modifying the existing setback and separation requirements so the existing ones have been carried over into the proposed amendments. (§20.80.690(2)(b))

But additionally, based on public comments the Commission received, the draft amendments would require a 1,000 foot separation between production facilities so that one particular neighborhood doesn't all end up with several. (§20.80.690(2)(c))

Processing Facilities that Use Hazardous Materials

The Commission agreed that processing facilities that use hazardous materials should only be allowed in the industrial districts. Such language has been included in the draft amendments (§20.80.690(2)(f)). Currently there are no such facilities in the rural districts, as adequate fire flow is necessary and can't be obtained without major investment. Thus, this change shouldn't affect any existing processors.

Nonconforming Rules

The Commission agreed that production and processing facilities made nonconforming by revisions to the marijuana regulations should be able to continue (as are all nonconforming uses under the County code), but not be able to expand (by any significant amount) or change to another nonconforming use. Thus such language has been included (§20.80.690(1)(e)).

IV. Comprehensive Plan Evaluation

The proposed amendments to WCC Title 20 (Zoning) have been developed using the guidance of the Comprehensive Plan so as to remain consistent. Though there are no policies regarding marijuana production or processing, the following support the proposed amendments:

Policy 2DD-2: Protect the character of the rural area through the County's development regulations.

(Supports limiting the size, location, and types of marijuana production facilities in the rural areas so as to reduce externalities)

Policy 2FF-2: Support resource-based industries that require only rural services, conserve the natural resource land base, and help maintain the rural character and lifestyle of the community.
Assure adequate facilities, mitigation and buffers through development regulations.

(Supports eliminating marijuana production and processing facilities as an allowed use in the Rural Forestry district.)

V. Draft Findings of Fact and Reasons for Action

Staff recommends the Planning Commission adopt the following findings of fact and reasons for action:

1. The County Council placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to: "Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing

⁴ This 300' setback was taken from our manure lagoon regulations (WCC 20.80.225(2)) as a way to reduce odor impacts.

facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan.”

2. Whatcom County Planning and Development Services (PDS) submitted an application (PLN2021-00009) to revise the County’s recreational marijuana production, processing, and retail sales zoning regulations.
3. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on September 29, 2021.
4. Notice of the subject amendments was submitted to the Washington State Department of Commerce on September 13, 2021, for their 60-day review.
5. On October 14, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed draft amendments.
6. The County Council held a duly noticed public hearing on the proposed amendments on X , 2021.
7. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, Chapter 314-55 WAC, and other applicable requirements.
8. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.
9. Once this ordinance is adopted and effective there is no longer a need for the interim moratorium imposed by Ordinance No. 2021-066.

VI. Proposed Conclusions

1. The amendments are in the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

VII. Recommendation

At their October 14, 2021, meeting the Planning Commission voted 5-2-0 to approve the draft findings of fact and the amendments shown in Exhibit A.

Planning and Development Services recommends that the County Council approve the draft ordinance with amendments to the Whatcom County Code as shown in Exhibit A.

Table 1. Summary of Existing Marijuana Rules

	Zone Requirements						Supplemental Requirements (Applies in all zones)											
Type	Zone	Permit Type	Distance req't	Lot Size	Accessory Use	Odor	Odor	Lighting	Traffic	Parking	Character	Max. Employees						
Production	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ⁵	If land is < 4.5 ac then facility limited to 2,000 sf ⁶			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking	Must be compatible with area's character	N/A						
	RF	P																
	A	P																
	RIM	P			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors													
	LII	P																
	HII	P																
Processing	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ¹	If land is < 4.5 ac then facility limited to 2,000 sf ²	Must be accessory to production	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking		10						
	RF	P	Not w/in 300' of an offsite residence ¹									10						
	A	P	Not w/in 1,000' of a community center ¹									20						
	RIM	P										10						
	LII	P										10						
	HII	P										10						
	Retail	STC	P		Limited to 2,500 sf													
		NC	P															
RGC		P																
GC		P																

⁵ May be waived when all adjacent property owners agree.

⁶ Note that a Tier 1 production license allows up to 10,000 sf of grow area, so this rule essentially prohibits production on smaller lots.

Table 2. Summary of Proposed Marijuana Rules

Type	Zone Requirements			Supplemental Requirements										
	Zone	Facility/Permit Type	Lot Coverage¹	Facility Size Restrictions	Separation of Facilities	Accessory Use	Separation	# of Licenses	Hazardous Materials	Screening	Odor	Lighting	Noise	Other
Production	R	Type 1 – ADM	No structure or combination of structures shall occupy or cover more than 5,000 square feet or 20%, whichever is greater, of the total lot area, not to exceed 25,000 square feet. (§20.36.450)	For parcels < 4.5 ac production or processing facilities limited to 2,000 sf	Not w/in 1,000' of another production facility		Not w/in 1,000' of a community center or 300' of an offsite residence²	1 production and/or 1 processing license per lot	N/A	Consistent with WCC 20.80.345 (Buffer Plantings).	Must install engineered odor control system; no VOCs shall be emitted that is detectable at or beyond the property boundaries	Light fixtures shall be designed and down-shielded away from adjoining properties, critical areas, shorelines, and public roads. Indoor lights must use blackout shades. All structures using artificial lighting for aiding in the growth cycle of plants shall install and employ mechanisms (e.g., blackout shades) that prevent light from escaping production structures	Shall comply with WCC 20.80.620 (Noise), and have a mechanical engineer design the noise control system	Must also comply with security, water, waste disposal, and parking standards
		Type 2 – CUP		For parcels ≥ 4.5 ac production facility limited to 1 ac										
	AG	Type 1 – ADM	No structure or combination of structures, including accessory buildings, shall occupy or cover more than 25% of the total area of the subject parcel... (§20.40.450)	For parcels < 4.5 ac production facility limited to 2,000 sf	For parcels ≥ 4.5 ac production facility limited to 2 ac		Also limited by lot coverage restrictions							
	RIM	Type 2 – P	In a rural community designation, combined floor area of all buildings shall not exceed that of a use of the same type that existed on a lot in that same rural community designation on July 1, 1990. (§20.69.451)	In a rural business designation, building or structural coverage of a lot shall not exceed 50% of the total area. (§20.69.452)										
	LII	Type 2 – P	The maximum building coverage shall not exceed 60% of the lot size. (§20.66.450)											
	HII (ADM)	Type 2 – P	The maximum building or structural coverage shall not exceed 60% of the lot size. (§20.68.450)											
Processing	R	ADM	Same as for production, above	For parcels < 4.5 ac processing & production area limited to 2,000 sf		Must be accessory to production	Not w/in 1,000' of a community center or 300' of an offsite residence²	1 production and/or 1 processing license per lot	Not allowed					
	AG	ADM							Allowed, but with standards					
	RIM	P												
	LII	P												
	HII	P												
Retail	STC	P		Limited to 2,500 sf										
	NC	P												
	RGC	P												
	GC	P												

¹ Though not a specific marijuana facility regulation, these rules apply to all hard surfaces, including structures and would limit the size of structures commensurate with the lot size.

PROPOSED BY: _____
INTRODUCTION DATE: _____

ORDINANCE NO. _____

**ADOPTING AMENDMENTS TO WCC TITLE 20 (ZONING) REGULATING THE PRODUCTION, PROCESSING,
AND RETAIL SALES OF RECREATIONAL MARIJUANA IN WHATCOM COUNTY AND REPEALING
ORDINANCE NO. 2021-066**

WHEREAS, on November 6, 2012, Initiative 502 was passed by the voters of the State of Washington, amending Chapter 69.50 RCW and providing the regulatory framework for cannabis producers, processors, and retailers to become licensed by the Washington State Liquor and Cannabis Board ("WSLCB"); and,

WHEREAS, on November 16, 2013, the WSLCB adopted final cannabis licensing rules as codified in Chapter 314-55 WAC. During the period between November 18, 2013 and December 18, 2013, the WSLCB accepted cannabis license applications for cannabis production, processing and retail facilities. Whatcom County began receiving notifications of proposed cannabis facilities from the WSLCB in mid-December 2013, and the WSLCB began issuing cannabis producer, processor, and retail licenses to qualified applicants in March of 2014; and,

WHEREAS, on January 16, 2014, the Washington State Attorney General issued an opinion stating that Initiative 502 does not preempt counties from banning or placing additional regulatory requirements on cannabis related businesses within their jurisdictions; and,

WHEREAS, the Prosecuting Attorney and Planning and Development Services (PDS) had at the time implemented a zoning interpretation policy, which stated that PDS would regulate cannabis proposed uses as allowed by Initiative 502 in the same way as any other commodity that is grown, processed, or sold in Whatcom County, it became evident that many of those proposed locations could conflict with other surrounding uses; and,

WHEREAS, on February 11, 2014, the Whatcom County Council adopted Ordinance 2014-011, an emergency ordinance imposing a moratorium on the acceptance of all building and/or land use applications that pertain to cannabis producers, processors, retailers and medical cannabis collective gardens; and,

WHEREAS, the County developed and implemented several sets of interim regulations during that time, though none were deemed appropriate by the Council as permanent regulations; and,

WHEREAS, on March 31, 2015, the Whatcom County Council adopted Ordinance 2015-006, which contains the current County zoning regulations for recreational cannabis type uses, treating cannabis similar to other agricultural products; and,

WHEREAS, Whatcom County Code (WCC) 20.97.227 defines marijuana production as a facility licensed by the state Liquor and Cannabis Board to produce, harvest, trim, dry, cure, and package marijuana, and sell marijuana at wholesale to state-licensed marijuana processors and other state licensed marijuana producers; and,

WHEREAS, WCC 20.97.227 states marijuana production may take place either indoors within a fully enclosed secured facility or a greenhouse with rigid walls, a roof and doors, or outdoors in non-rigid

greenhouses, other structures or an expanse of open or cleared ground fully enclosed by a physical barrier; and,

WHEREAS, Ordinance 2015-006 allows for the production and processing of cannabis in the Rural (administrative uses), Rural Forestry (permitted uses) and Agriculture zone districts (permitted uses), subject to a proposed facility meeting several stated use standards. Such standards include odor controls (for indoor grows only), lighting, traffic and parking control measures, as well as setbacks of 1,000 feet from community centers and 300 feet from residences not located on the same property. The ordinance also allowed for the production and processing of marijuana in the Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts as permitted uses, subject to odor control measures (for indoor grows); and,

WHEREAS, the WSLCB is no longer issuing new licenses, existing licenses throughout Washington State can be transferred and Whatcom County was notified by the WSLCB of approximately 30 recreational marijuana production and/or processing renewal licenses last year (2020) within unincorporated Whatcom County; and,

WHEREAS, while earlier licensees were small, local producers, their licenses now appear to be being transferred to larger operators with more capital who are buying up the earlier licenses and expanding and/or changing operations and/or locations; and,

WHEREAS, prior to adoption of the first moratorium on issuing new permits for certain marijuana production facilities, the Council, Executive, Planning Commission, and PDS received complaints from residents adjacent to existing and proposed cannabis facilities regarding excessive odor, lighting, and potential water usage, suggesting that the County's cannabis regulations may not be sufficient; and,

WHEREAS, on March 23, 2021, the County Council adopted the 2021 Docket, a component of the PDS work plan, including item PLN2021-00009, to "Review and revise Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan." However, due to the pandemic, the Planning Commission and County Council have backlogs of other issues to address, and PDS will need time to work with the community to properly develop and process any potential regulatory amendments; and,

WHEREAS, on April 20, 2021, the County Council adopted Ordinance No. 2021-023, imposing a six-month interim moratorium prohibiting the filing, acceptance, or processing of new applications for permits or authorizations for recreational marijuana production and/or processing facilities which are proposed to operate outdoors or in greenhouses; and,

WHEREAS, on October 26, 2021, through the adoption of Ordinance No. 2021-066, the Council extended that moratorium for an additional 6 months; and

WHEREAS, once this ordinance is adopted and effective there is no longer a need for the interim moratorium imposed by Ordinance No. 2021-066;

WHEREAS, pursuant to the Washington State Constitution, the general police powers granted to counties empower and authorize Whatcom County to adopt land use controls to provide for the regulation of land uses within the County and to provide that such uses shall be consistent with applicable law; and,

FINDINGS OF FACT

1. The County Council placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to: "Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan."
2. Whatcom County Planning and Development Services (PDS) submitted an application (PLN2021-00009) to revise the County's recreational marijuana production, processing, and retail sales zoning regulations.
3. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on September 29, 2021.
4. Notice of the subject amendments was submitted to the Washington State Department of Commerce on September 13, 2021, for their 60-day review.
5. On October 14, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed draft amendments.
6. The County Council held a duly noticed public hearing on the proposed amendments on November 23, 2021.
7. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, Chapter 314-55 WAC, and other applicable requirements.
8. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

CONCLUSIONS

1. The amendments to the development regulations are the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

Section 1. Amendments to the Whatcom County Code are hereby adopted as shown in Exhibit A.

Section 2. Ordinance No. 2021-066 is hereby repealed in its entirety upon the effective date of this ordinance.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Council Clerk

APPROVED as to form:

Barry Buchannan, Council Chair

() Approved () Denied

Civil Deputy Prosecutor

Satpal Sidhu, Executive

Date: _____

Exhibit A – Proposed Marijuana Code Amendments

WCC Title 20 Zoning

Chapter 20.36 RURAL (R) DISTRICT

20.36.130 Administrative approval uses.

The following uses are permitted subject to administrative approval pursuant to WCC 22.05.028.

...

.137 Type 1 Marijuana Production Facilities, subject to WCC 20.80.690y; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:

- (1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (3) On parcels smaller than four and one-half acres the facility shall not exceed a total of 2,000 square feet, except where the facility is contained within a building that existed on the effective date of the ordinance codified in this section.

.138 Marijuana Processing Facilities, subject to WCC 20.80.690.y; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694 and WCC 22.05.028:

- (1) The facility is accessory to the on-site production of marijuana.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (3) On parcels smaller than four and one-half acres the total area used for marijuana processing and production shall not exceed 2,000 square feet, except where the facility is contained within a building that existed on the effective date of the ordinance codified in this section.

20.36.150 Conditional uses.

...

.160 Type 2 Marijuana Production Facilities, subject to WCC 20.80.690.

...

Chapter 20.40 AGRICULTURE (AG) DISTRICT**20.40.050 Permitted uses.**

Unless otherwise provided herein, permitted, accessory, and conditional uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 WCC (Supplementary Requirements), and Chapter 22.05 WCC (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program). The following are permitted uses:

...

.059 Marijuana production facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:

- (1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility and the waiver is approved through an administrative approval process per WCC 22.05.028.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

...

20.40.100 Accessory uses.

...

.115 Marijuana Processing Facility, WCC 20.80.690 through 20.80.694:

- (1) The facility is accessory to the on-site production of marijuana.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

20.40.130 Administrative approval uses.

...

.140 Type 1 Marijuana Production Facilities, subject to WCC 20.80.690.

.141 Marijuana Processing Facilities, subject to WCC 20.80.690.

...

Chapter 20.42 RURAL FORESTRY (RF) DISTRICT**20.42.050 Permitted uses.**

Unless otherwise provided herein, permitted, accessory, and conditional uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 WCC (Supplementary Requirements), and Chapter 22.05 WCC (Project Permit Procedures), the Whatcom County Chapter 16.08 (SEPA) Ordinance, Title 21 (Land Division Regulations) the Whatcom County Subdivision Ordinance, and Title 23 the Whatcom County (Shoreline Management Program).

...

~~.070 Marijuana production facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:~~

- ~~(1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility and the waiver is approved through an administrative approval process per WCC 22.05.028.~~
- ~~(2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.~~

...

20.42.100 Accessory uses.

...

~~.106 Marijuana processing facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:~~

- ~~(1) The facility is accessory to the on-site production of marijuana.~~
- ~~(2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the~~

owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

...

Chapter 20.69 RURAL INDUSTRIAL AND MANUFACTURING (RIM) DISTRICT

20.69.050 Permitted uses.

The following permitted uses shall be allowed subject to an evaluation by the Director zoning administrator pursuant to the provisions of this chapter and WCC Chapter 20.80 (Supplementary Requirements) ~~WCC~~. In a rural community designation, nonresidential uses listed below are permitted if a use of the same type existed in that same rural community designation on July 1, 1990, per WCC 20.80.100(1). In a rural business designation all uses listed below are permitted.

.051 Manufacturing/fabrication type uses.

...

(17) Type 2 M marijuana production facilities, subject to WCC 20.80.690.

(18) Marijuana processing facilities, subject to WCC 20.80.690.

...

20.69.700 Performance standards.

20.69.704 Odor, dust, dirt, and smoke.

(1) Except as specified in subsection (2), No odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.

(2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

~~20.69.708 Marijuana odor.~~

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES1]: Now covered by 20.80.690(3)(g).

Chapter 20.66 LIGHT IMPACT INDUSTRIAL (LI) DISTRICT

20.66.050 Permitted uses.

Unless otherwise provided herein, permitted and accessory uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 ~~WCC~~ (Supplementary Requirements), Chapter 22.05 ~~WCC~~ (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land

Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program).

...

.087 Type 2 Marijuana Production or Processing Facilities, subject to WCC 20.80.690.

.088 Marijuana Processing Facilities, subject to WCC 20.80.690.

...

20.66.700 Performance standards.

...

20.66.704 Odors.

(1) Except as specified in subsection (2), No odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.

(2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

20.66.709 Marijuana odor.

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES2]: Now covered by 20.80.690(3)(g).

Chapter 20.68 HEAVY IMPACT INDUSTRIAL (HII) DISTRICT

20.68.050 Permitted uses.

Unless otherwise provided herein, permitted and accessory uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80-WCC, (Supplementary Requirements), and Chapter 22.05 WCC, (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program). The purpose of the SIC numbers listed within this chapter is to adopt by reference other activities similar in nature to the use identified herein. (Policies of the subarea Comprehensive Plan may preclude certain permitted uses to occur in particular subareas. Please refer to the policies of the applicable subarea plan to determine the appropriateness of a land use activity listed below.)

...

.066 Type 2 Marijuana Production or Processing Facilities, subject to WCC 20.80.690.

.067 Marijuana processing facilities, subject to WCC 20.80.690.

...

20.68.700 Performance standards.

...

- (1) Except as specified in subsection (2), ~~no~~ odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.
- (2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

...

~~20.68.709 Marijuana odor.~~

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES3]: Now covered by 20.80.690(3)(g).

20.80 SUPPLEMENTARY REQUIREMENTS**~~20.80.690 Marijuana production and processing.~~****~~20.80.691 Marijuana state license required.~~**

~~Prior to commencing operations, a marijuana producer, processor, or retailer shall obtain approval as a state-licensed marijuana producer, processor, or retailer under Chapter 69.50 RCW, as amended, and Chapter 314-55 WAC, as amended.~~

Comment [CES4]: Now covered by 20.80.690(1)(a).

~~20.80.692 Application for county development permits—Timing.~~

~~Applicants for marijuana production, processing, or retailing may apply for county development permits at any time. Applicants who wish to apply for county permits, or commence construction of facilities for producing, processing, or retailing of marijuana under Chapter 69.50 RCW, prior to obtaining approval as a state-licensed marijuana producer, processor or retailer do so at their own risk. Final occupancy of the building will not be granted until a state Liquor and Cannabis Board license has been approved.~~

Comment [CES5]: Now covered by 20.80.690(1)(a).

~~20.80.693 Production.~~

- (1) ~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~
- (2) ~~Any lights used to illuminate the facility shall be so arranged as to direct the light away from the adjoining property and the public road.~~

Comment [CES6]: Now covered by 20.80.690(3)(g).

Comment [CES7]: Now covered by 20.80.690(3)(a).

- (3) No traffic shall be generated by such a facility in greater volume than would normally be expected in the applicable zoning district and appropriate for the road classification which serves the property.
- (4) Any need for parking generated by the conduct of such a facility shall meet the off-street parking requirements as specified in this title. At least one additional space shall be provided for each nonresident on-site employee.
- (5) The proposed use shall be compatible with the general appearance and character of the surrounding area. The zoning administrator at his or her discretion may require landscape screening pursuant to the requirements of WCC 20.80.345.

Comment [CES8]: Staff believes we don't need this. Firstly, there's no way to judge what "greater volume than would normally be expected." Secondly, no production facility, with normally only a few employees and no customers coming to the site, would create an inordinate amount of traffic.

Comment [CES9]: Now covered by 20.80.690(3)(d).

Comment [CES10]: Now covered by 20.80.690(3)(b).

20.80.694 Processing.

- (1) The facility employs no more than 10 permanent employees, except that in the Agriculture and Rural Forestry Zones the facility may employ no more than 20 employees.
- (2) For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.
- (3) Any lights used to illuminate the facility shall be so arranged as to direct the light away from the adjoining property and the public road.
- (4) No traffic shall be generated by such a facility in greater volume than would normally be expected in the applicable zoning district and appropriate for the road classification which serves the property.
- (5) Any need for parking generated by the conduct of such a facility shall meet the off-street parking requirements as specified in this title. At least one additional space shall be provided for each nonresident on-site employee.

Comment [CES11]: Not needed. Was originally included when we were treating marijuana as an agricultural product, and this mimics the language for ag processing

Comment [CES12]: Now covered by 20.80.690(3)(g).

Comment [CES13]: Now covered by 20.80.690(3)(a).

Comment [CES14]: Staff believes we don't need this. Firstly, there's no way to judge what "greater volume than would normally be expected." Secondly, no production facility, with normally only a few employees and no customers coming to the site, would create an inordinate amount of traffic.

Comment [CES15]: Now covered by 20.80.690(3)(h).

20.80.690 Marijuana – Production and Processing Facilities.

- (1) **General.** Marijuana production or processing facilities shall comply with RCW Title 69, Chapter 314-55 WAC, and the following general standards:
- The WSLCB must approve a marijuana license for the subject property prior to issuance of the County's certificate of occupancy for buildings proposed for marijuana production or processing. Any permitting or construction work done prior to receiving said license is done so at the applicant's own risk.
 - Consistent with WAC 314-55-015, marijuana production and processing shall not take place in a residence or other location where law enforcement access, without notice or cause, is limited.
 - Marijuana production and processing are not allowed as home occupations or cottage industries.
 - Marijuana production and processing operations may not be located in critical areas or their buffers (WCC Chapter 16.16, Critical Areas) or in the shoreline jurisdiction (WCC Title 23).
 - Nonconforming Uses.** This section applies to those marijuana facilities legally existing as of INSERT DATE OF ADOPTION OF THESE RULES that, due to noncompliance with these standards,

Comment [CES16]: Note to Cliff: Fill in upon adoption

become nonconforming. Legally existing facilities that meet these standards are not considered nonconforming and may continue the use or they may expand with the proper permits.

(i) Continuation of Nonconforming Uses. Any legally existing marijuana production or processing facility that becomes nonconforming may continue operations as a nonconforming use within the terms of their permit(s) even when those facilities do not meet the standards of this section, pursuant to WCC 20.83.010.

(ii) Expansion of Nonconforming Uses. Similarly, expansion may be allowed pursuant to WCC 20.83.020, EXCEPT that:

A. Expansion of nonconforming Type 2 marijuana production facilities is prohibited; and,

B. Any other expansion shall be limited to 10% (in area) unless the standards of this section are met.

(iii) Change to Another Nonconforming Use. WCC 20.83.040 shall not apply: Nonconforming marijuana production or processing facilities shall not be able to change to another nonconforming use.

(2) District Specific Standards.

a. Facility Size –

(i) In the Rural district, production or processing facilities on parcels smaller than 4.5 acres shall not exceed a total of 2,000 square feet. On lots of 4.5 acres or greater production and processing facilities shall not exceed 1 acre.

(ii) In the Agriculture district, production and processing facilities on parcels smaller than 4.5 acres shall not exceed a total of 2,000 square feet. On lots of 4.5 acres or greater processing and production facilities shall not exceed 2 acres.

b. Separation of Uses – In the Rural and Agriculture districts, no facility shall be located within 1,000 feet of a **community center** or within 300 feet of any residential dwelling unit not located on the same parcel as the facility and existing at the time of application. Said distance shall be measured as the shortest straight line distance from property lines (for community centers) or structures (for residences).

c. Separation of Facilities – In the Rural and Agriculture districts, no marijuana production facilities shall be located within 1,000 feet of each other. Said distance shall be measured as the shortest straight line distance from such facilities.

d. Limit on Number of Licenses per Lot. In the Rural and Agriculture districts, only one Washington State Liquor and Cannabis Board (WSLCB) marijuana production license may be used per legal lot (though may be combined with one processing license).

e. Accessory Use Only. In the Rural and Agriculture districts, processing facilities are only allowed as an accessory use to a production facility.

f. Hazardous Materials – Marijuana processing using hazardous or flammable solvents or gases is allowed only in the LII, HII, or RIM districts. Producers and processors that will use chemicals, industrial solvents, or other noxious or hazardous substances shall comply with all federal, state, and County safety, fire, structural, storage, and disposal standards. They shall describe the proposed use of hazardous substances, methods, equipment, solvents, gases, and mediums identified in WAC 314-55-104 on permit applications and site plans.

Comment [CES17]: Defined in T-20 as, "Community center" means land and/or building(s) owned by a public agency or private nonprofit entity used for social, civic, educational, religious, or recreational purposes, which serves mainly the community where located; including but not limited to community halls and centers, grange halls, senior citizen centers, teen centers, youth clubs, field houses, and churches. The facilities are available for occasional public meetings. They may also have the minimal kitchen facilities required for occasional banquets. Private clubs as defined in this title are not included."

(3) Facility Design Standards.

- a. Lighting – For both Type 1 and 2 production facilities:
 - (i) Outdoor fixtures illuminating production or processing operations shall be designed and down-shielded to direct light away from adjoining properties, critical areas, shorelines, and public roads.
 - (ii) All structures using artificial lighting for aiding in the growth cycle of plants shall install and employ mechanisms (e.g., blackout shades) that prevent light from escaping production structures.
- b. Screening – Marijuana production and processing facilities shall be landscaped and screened consistent with WCC 20.80.300, et seq. (Landscaping). Screening shall be located outside of the state's required security fence to provide a visual barrier.
- c. Security – Producers and processors shall install the security requirements of WAC 314-55-083 prior to issuance of the County's certificate of occupancy for a marijuana operation.
- d. Parking – Such facilities shall meet the off-street parking requirements of WCC 20.80.500, et seq. (Off-street Parking and Loading Requirements).
- e. Water and Waste Disposal – Permit applications shall include documentation of compliance with the water system requirements and waste disposal regulations of WCC Title 24 (Health Code) and WAC 314-55-097.
- f. Noise – Producers and processors required to install odor control system per subsection (g) shall comply with WCC 20.80.620 (Noise). Fan noise from operations shall be minimized. A mechanical engineer licensed in the state of Washington shall design the noise control system, to be approved by the Building Official, using standard industry practices such as installing fans with components listed by Underwriters Laboratories (UL) and a combination of the following techniques and components:
 - (i) Short and straight line vent runs;
 - (ii) Silencers and insulated vents, vent sleeves and mufflers;
 - (iii) Acoustic ducting;
 - (iv) Fan speed controllers;
 - (v) Soundproofing boxes;
 - (vi) Sound-muffling casing;
 - (vii) Padded foam cushions under the fans;
 - (viii) Intelligent programming motors and controllers; and
 - (ix) Hanging fans hung from bungee cords from hooks in ceiling.
- g. Odor –
 - (i) All Production and Processing – No odor, terpenes, or other similar volatile organic compounds (VOCs) shall be emitted that is detectable at or beyond the property boundaries of the facility in such a concentration or of such duration as to cause a public nuisance or threaten health or safety.
 - (ii) Type 2 Production – Type 2 producers shall minimize odors emitted by using best management practices and technology, and all air must go through an odor control system before being vented outdoors. A mechanical engineer licensed in the state of Washington shall design the odor control system using guidance from the National Air

Filtration Association and approved by the Building Official. The odor control plan must incorporate a combination of the following site design practices, tools, or other newly improved technologies to mitigate odors:

- A. Use of filters on exhaust air prior to dispersal;
- B. Placement of operations after consideration of predominant wind directions;
- C. Installation of additional vegetative buffers around grow areas;
- D. Reduction of passive odor escapes by tightening and sealing structures;
- E. Use of negative pressure techniques and air locks to reduce odors from escaping when doors open;
- F. Use of chillers that move water around the structure and leave air in place instead of air conditioning;
- G. Installation of carbon filter scrubbers to heating, ventilation, and air conditioning systems;
- H. Installation of dry vapor systems;
- I. Installation of ionizers;
- J. Use of mini-vapor screens on the interior, and Vapomatic and vapor screens on the exterior of structures;
- K. Installation of a piping system on perimeter fencing that neutralizes malodorous molecules;
- L. Installation of a gas phase filtration system; and/or,
- M. Installation of a fog system to disperse mixed water- and odor-neutralizing chemicals.

h. *Building Permits Required* – Building permits shall be required for any structures used in Marijuana Production Facilities.

20.80.691 Marijuana – Retail Sales Facilities.

Marijuana retail sales facilities shall comply with RCW Title 69, WAC Chapter 314-55, and the following.

1. The WSLCB must approve a marijuana retail sales license for the subject property prior to issuance of the County's certificate of occupancy for buildings proposed for marijuana retail sales. Any permitting or construction work done prior to receiving said license is done so at the applicant's own risk.
2. Consistent with WAC 314-55-015, marijuana retail sales shall not take place in a residence or other location where law enforcement access, without notice or cause, is limited. Marijuana retail sales are not allowed as home occupations or cottage industries.
3. Retail sales facilities shall install the security requirements of WAC 314-55-083 prior to issuance of the County's certificate of occupancy for a marijuana operation.
4. Such facilities shall meet the off-street parking requirements of WCC 20.80.500, et seq. (Off-street Parking and Loading Requirements).

Chapter 20.97 DEFINITIONS

20.97.010 Agriculture.

“Agriculture” means the use of land for farming, horticulture, floriculture, viticulture, and the necessary accessory uses for packing, treating or storing the produce; ~~provided, however, that, though~~ the operation of any such accessory uses shall be secondary to that of normal agricultural activities. However, the production of marijuana is not considered agriculture.

20.97.010.1 Agricultural Processing.

“Agricultural processing” means the transformation, either chemically or physically, of raw agricultural goods including but not limited to washing, grading, sizing, drying, extracting, icing, producing ornamental agricultural products, sorting, cutting, pressing, bagging, freezing, canning, packaging, milling, crushing, fermenting, aging, pasteurizing, preserving, storage, bottling, but excluding slaughtering of livestock. Agricultural processing includes those process steps associated with product preparation and processing. Storage, warehousing, and distributing products in conjunction with the agricultural processing activity occurring on that site shall be allowed. However, the processing of marijuana is not considered agricultural processing.

20.97.225 Marijuana, ~~marihuana or cannabis.~~

“Marijuana,” (a.k.a., “marihuana” or “cannabis”) means all parts of the plant cannabis, whether growing or not, with a THC concentration greater than 0.3 percent on a dry weight basis; the seeds thereof; the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. The term does not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of the plant which is incapable of germination.

20.97.226 Marijuana processing facility.

“Marijuana processing facility” means a facility licensed by the state Liquor and Cannabis Board to process marijuana into useable marijuana, marijuana concentrates, and marijuana-infused products; ~~and~~ package and label useable marijuana and marijuana-infused products for sale in retail outlets; ~~and~~ sell useable marijuana and marijuana-infused products at wholesale to marijuana retailers. A marijuana processing facility shall include any structure that is associated with the processing of marijuana.

20.97.227 Marijuana production facility.

“Marijuana production facility” means a facility licensed by the state Liquor and Cannabis Board to produce, harvest, trim, dry, cure, ~~and package marijuana,~~ and sell marijuana at wholesale to state-licensed marijuana processors and other state-licensed marijuana producers. A marijuana producer may also produce and sell marijuana plants, seed, and plant tissue culture to other state-licensed marijuana producers. The area of a marijuana production facility includes all the area enclosed within a structure or fence that is required by the state Liquor and Cannabis Board for the production of marijuana. Where limitations on size are imposed pursuant to §20.80.690, the “facility” shall include all structures related

to the production or processing of marijuana and any ground in which marijuana is grown. For the purposes of this code, Whatcom

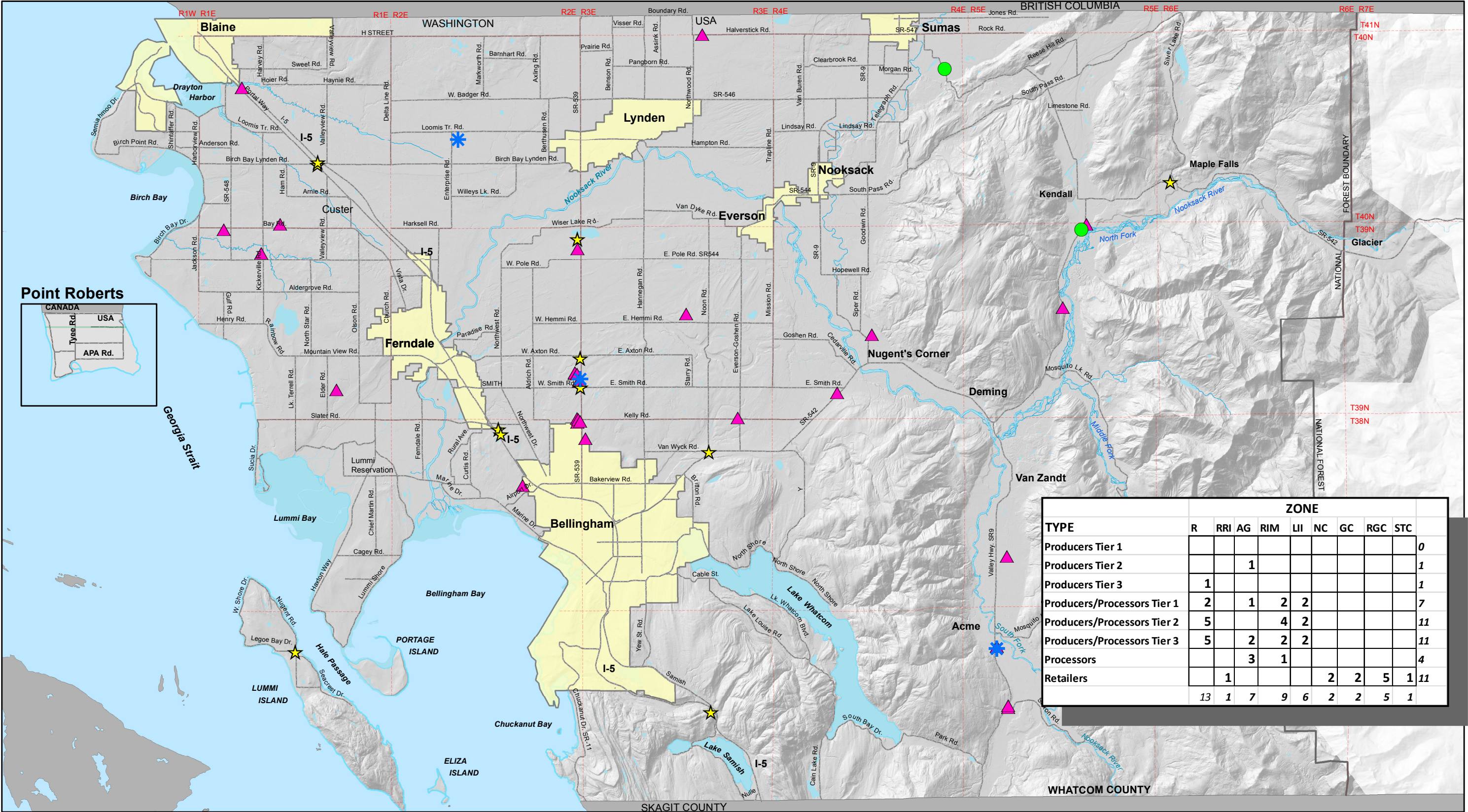
- A. “Type 1 Marijuana ~~Outdoor~~ Production Facilities” shall mean production ~~may~~ takes place outdoors, including in an expanse of open or cleared ground, or in ~~nonrigid greenhouses, other structures that have no artificial lighting for aiding in the growth cycle, or an expanse of open or cleared ground fully enclosed by a physical barrier.~~ except that Type 1 facilities may allocate up to 10% of the total square footage of their allowed facility area to genetic preservation and plant propagation in a designated indoor area with artificial lighting. This area must be clearly identified and described in the permit the application, and is subject to all the supplemental requirements of a Type II Facility; however, no flowering plants are permitted in this area at any time.
- B. “~~Indoor~~ Type 2 Marijuana ~~Production~~ Facilities” shall mean production facilities that use artificial lighting for aiding in the growth cycle ~~within a fully enclosed secure indoor facility or greenhouse with rigid walls, a roof, and doors.~~

20.97.228 Marijuana retail facility.

“Marijuana retail facility” means a facility licensed by the state Liquor and Cannabis Board to sell useable marijuana and marijuana-infused products in a retail outlet. A marijuana retail facility shall include any building or portion thereof that is associated with the sale of marijuana.

Whatcom County

2021 Licensed Cannabis Operations



Legend

- ★

Retailer Only (11)
- ✱

Processor Only (4)
- Incorporated City
- Producer Only (2)
- ▲

Producer/Processor (29)

(Points may represent more than one business at same address)

June 2021

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Whatcom County

COUNTY COURTHOUSE
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Agenda Bill Master Report

File Number: AB2021-605

File ID:	AB2021-605	Version:	1	Status:	Held In Committee
File Created:	10/15/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Discussion		
Assigned to:	Council Planning and Development Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: cstrong@co.whatcom.wa.us <<mailto:cstrong@co.whatcom.wa.us>>

TITLE FOR AGENDA ITEM:

Discussion on proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Discussion of proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options by allowing and regulating tiny homes and allowing duplexes in planned unit developments.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council Planning and Development Committee	DISCUSSED AND MOTION(S) APPROVED	

Attachments: Staff Report, Proposed ordinance, Exhibit A

**Whatcom County
Planning & Development Services
Staff Report**

Affordable Housing Options

I. File Information

File #: PLN2021-00012

File Name: Affordable Housing Options

Applicant: Whatcom County Planning and Development Services (PDS)

Project Summary: Proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options by allowing and regulating tiny homes and allowing duplexes in planned unit developments.

Location: Countywide.

Attachments

- Draft Ordinance
- Exhibit A – Proposed Amendments

II. Background

The Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes within mobile home or RV parks or on individual lots, as newly authorized under amendments to RCW 58.17.040 via ESSB 5383. Staff is also proposing amendments to the Planned Unit Development (PUD) code to allow and encourage duplexes in urban growth areas. Both are intended to provide additional affordable housing options for Whatcom County citizens.

Tiny Homes

What are Tiny Homes?

To decipher how best to develop the regulatory structure to allow tiny homes, staff first identified the key characteristics of the various types of tiny homes to compare with our existing types of analogous residential units. Broadly, but in more detail in Table 1, these characteristics have to do with what type of state or federal license or certification they can obtain, whether or not they're self-contained¹, and whether they have chassis and axles/wheels, all of which have to do with whether they are intended or can be used for long-term (residential) or short-term (recreational) use. There are other differences, like how much insulation they have or whether they have basic sanitary facilities such as toilets, showers, and sinks, but these are built into the certification/licensing standards and the characteristics we've used seem to suffice for classification.

¹ Meaning do they have tanks to hold water and sewage and have batteries for power, or do they need to be connected to utilities to operate?

Based on this analysis, we have identified four types of tiny homes, each corresponding to one of our existing unit types. The two that are intended for long-term residential use are:

- *Site-Built Tiny Homes* are built on-site, are not self-contained, are intended for long-term use, and meet the International Residential Code (IRC) standards. They are analogous to standard site-built homes, except that they're smaller (< 400 sq. ft.).
- *Manufactured Tiny Homes* are built off-site (generally at a manufacturing plant) with a chassis, axles, and wheels and transported to their final location (though the wheels may be removed) where the unit is placed on a permanent foundation. They are not self-contained, are intended for long-term use, and would have to meet the IRC standards *or* be HUD certified *and* be L&I certified as a permanent dwelling unit. They are analogous to standard mobile (or manufactured) homes, except that they're smaller.

The other types of tiny homes that are getting a lot of interest are Tiny Homes on Wheels (or THOWs, and yes, a real acronym). These tend to be homemade but, because of their construction standards, they are only intended and can only be certified for short-term recreational use or occupancy. But even among them, based on key characteristics, there are two different types. We're designating them:

- *Type 1 Tiny Homes on Wheels* have a chassis, axles, and wheels and are intended for trailering. They are *not* self-contained so must be hooked up to utilities. They do not meet the IRC standards nor are they certified by HUD for long-term residential use, but can be certified by L&I for short-term recreational use. And they must be licensed by the state Department of Licensing for transport on the highways. They are analogous to park model trailers.
- *Type 2 Tiny Homes on Wheels* are similar to Type 1 THOWs, but *are* self-contained, meaning they have tanks to hold water and sewage and have batteries for power so that they don't always need to be connected to utilities. They do not meet the IRC standards nor can they be certified by HUD for long-term residential use, but can be certified by L&I for short-term recreational use. And they must be licensed by the state Department of Licensing for transport on the highways. They are analogous to recreational vehicles (RVs).

Regarding building permit requirements, please note that the Council already adopted the newest International Residential Code, including Appendix Q, which contains the building code rules for tiny homes.

We would also like to point out that staff met several times with some tiny home proponents who proposed a third type of THOW. This type wouldn't meet IRC or HUD standards, but would be based on standards we specifically adopt in our code. These standards, they claimed, would be based on ANSI standards (what L&I uses to certify RVs) plus some additional standards (they referred to them as ANSI++) and our Building Official would have to certify them for use in Whatcom County. However, this approach would create significant jurisdictional regulatory inconsistencies since such units wouldn't be able to be used in any other jurisdiction (including the cities in Whatcom County) as they would only be "certified" for use in unincorporated Whatcom County under our own unique standards.

These proponents were also asking that these types of THOWs be able to be used for guest lodging for longer than 120 days², which is our standard "temporary recreational occupancy" time limit under existing code. Extending temporary recreational occupancy would essentially make these THOW's

² For all Temporary Recreational Occupancies – On individual lots, the maximum length of stay of any recreational vehicle on a lot may not exceed a total of 120 days per calendar year; provided, that no accessory guest RV shall remain on the subject lot for more than 14 consecutive days nor more than 30 days total per calendar year.

permanent accessory dwelling units and raise potential GMA challenges and cause greater impacts that come with such increased densities, especially in rural areas.

Council should also be aware that staff tried very hard to figure out a way to allow “tiny home villages” (including those allowing site built tiny homes) in rural areas. However, GMA rural density restrictions significantly limit the potential for such “villages” in rural areas—meaning they would have to meet the underlying rural low density zoning just like any other subdivision. Our conclusion was that such tiny home villages are more likely to be created in cities or UGAs (which allow higher urban densities) and then only when adequate utilities are available, which our cities generally won’t extend until the property is annexed. But we do have existing (nonconforming at least in terms of density) mobile home and RV parks, so allowing the appropriate type of tiny homes within them at least furthers the affordable housing goal.

Allowing Duplexes in Planned Unit Developments

Another amendment proposed as a way to increase affordable housing options is to allow duplexes in certain zones when a project is developed as a Planned Unit Development (PUD) (WCC Chapter 20.85). PUDs:

- Allow certain uses beyond those allowed in the underlying zone when a project is developed as a planned neighborhood community;
- Can only be developed within Urban Growth Areas and have to be at least two acres in size (except under certain conditions listed in WCC 20.85.020);
- Have additional standards for buffering, open space, circulation, access, parking, storage, and utilities;
- Allow for increased densities (WCC 20.85.108);
- Allow a relaxation of dimensional standards (WCC 20.85.109); and,
- Can only be approved by Council.

Currently PUDs allow single-family and multi-family residential uses, but not duplexes. To rectify this incongruity and help promote affordable housing, staff is proposing amendments to WCC 20.85.050.

Table 1. Defining characteristics of the various types of "homes"

Characteristic	Site-Built Home	Site-Built Tiny Home	Manufactured (Mobile) Home	Manufactured Tiny Home	Park Model Trailer	Type 1 Tiny Home on Wheels	Recreational Vehicle	Type 2 Tiny Home on Wheels
Meets IRC standards for permanent dwelling unit	Yes	Yes	Yes	Yes	No	No	No	No
OR Is HUD certified	No	No	Yes	Yes	No	No	No	No
Is L&I certified for Use ³	No	No	Yes, as a permanent dwelling unit	Yes, as a permanent dwelling unit	Yes, for recreational use	Yes, for recreational use	Yes, for recreational use	Yes, for recreational use
Is DOL licensed	No	No	No	No	No	No	Yes	Yes
Is intended/ licensed for long-term or short-term residential use	long-term	long-term	long-term	long-term	short-term	short-term	short-term	short-term
Is self-contained (wastewater, water, power) (if not, must be connected to utilities)	No	No	No	No	No	No	Yes	Yes
Has chassis and axles/wheels	No	No	Yes when manufactured, but wheels removed once sited	Yes when manufactured, but wheels removed once sited	Yes, when manufactured, but wheels removed once sited	Yes, when manufactured, but wheels removed once sited	Yes	Yes

³ Certified as a (long-term) permanent dwelling unit or for (short-term) recreational use, as noted.

III. Amendments

The proposed amendments are found in Exhibit A. Please refer to that attachment; explanations are provided therein. Here is an overview, though.

Proposed Tiny Home Regulatory Structure

Based on the characteristics shown in Table 1 each of the four types of tiny homes corresponds or is analogous to a type of (either long- or short-term) residence that the County already regulates. Thus, to simplify or streamline the means to regulate these units, we can just define each of these types of tiny homes as one of our existing types and they would be regulated under existing regulations for that type.

So staff is proposing to add definitions for each of the types: “Tiny Homes,” with subcategories for “site-built tiny homes” and “manufactured tiny homes”; and “Tiny Homes on Wheels,” with subcategories for “Type 1 THOWs” and “Type 2 THOWs” (see Exhibit A, §20.97.435.03 & §20.97.435.04). Then we’re proposing to amend the definitions for “Mobile Home” to include “Manufactured Tiny Homes” (Exhibit A, §20.97.250), “Recreational Vehicle” to include “Type 2 THOWs” (Exhibit A, §20.97.335), and “Park Model Trailer” to include “Type 1 THOWs” (Exhibit A, §20.97.292) (plus some grammatical edits).

With these definitional amendments, each of these tiny home types would then be allowed wherever their existing corresponding standard type is allowed under existing code:

- Site-built tiny homes would generally be allowed wherever and under whatever circumstances and standards standard site-built homes are allowed (either as a primary use or an accessory dwelling unit (ADU));
- Manufactured tiny homes would generally be allowed wherever and under whatever circumstances and standards standard mobile (or manufactured) homes are allowed (as a primary use, an ADU, or in a mobile home park);
- Type 1 THOWs would generally be allowed wherever and under whatever circumstances and standards park model trailers are allowed (as temporary guest lodging or in an RV park in a space designated for park models, meaning they have utility hookups); and,
- Type 2 THOWs would generally be allowed wherever and under whatever circumstances and standards recreational vehicles are allowed (as temporary guest lodging or in an RV park).

Table 2 more specifically identifies in which zones the various tiny home types would be allowed, as what type of use, and what permit would be required. These are identical to where we currently allow their existing counterpart (single-family residences, mobile homes, park model trailers, and recreational vehicles). Do note, however, that for simplicity’s sake there may be additional standards or requirements in some zones not shown in the table, but they’d be the same as for their counterparts.

Apart from these definitional amendments, staff is also proposing to clarify our Mobile Home and RV Park Standards. First, we’re proposing to separate the two into distinct sections. We’re also identifying the process by which such a park can be permitted (binding site plan or condominium), and that CC&R’s must be submitted and approved (so that we can ensure long-term maintenance and operations are dealt with properly). Apart from that, we’re keeping the rules that applied to both in both, but putting the rules that only apply to one type of park in their respective sections. (See Exhibit A, §20.80.950 and §20.80.955.)

Under the proposed regulations, one could develop a mobile home park for mobile homes, manufactured tiny homes, or a mix of the two; and an RV park for RV’s, Type 2 THOWs, or a mix of the two. Mobile home parks are allowed as a conditional use in the Resort Commercial (RC), Urban

Residential Mixed (UR-MX), and Urban Residential – Medium Density (URM) Districts. Recreational vehicle (RV) parks are allowed as a conditional use in the Resort Commercial (RC), Tourist Commercial (TC), and Point Roberts Special Districts.

Table 3 shows how many mobile home and RV parks currently exist in the County. In total there are 39 mobile home parks and 7 RV parks, containing 2,858 spaces, 1,881 of which can be used for park models or Type 1 THOWS.

Duplexes in Planned Unit Developments

While most of the changes to WCC 20.85.053 shown in Exhibit A are just cleaning up grammar, the two that are policy changes are where “duplexes” has been added to subsections (1) and (2).

IV. Comprehensive Plan Evaluation

The proposed amendments to the regulations (WCC Title 20) have been developed using the guidance of the Comprehensive Plan so as to remain consistent. Particularly relevant are:

Goal 3C: Create opportunity for a broad range of housing types and encourage mixed affordability.

Policy 3C-1: Support lot clustering, varied lot sizes, small-scale multi-family dwellings, accessory housing, especially accessory dwelling units (ADUs) in single-family zoning, and reductions in infrastructure requirements for subdivisions as incentives for development of housing obtainable by purchasers with the greatest possible mix of needs and household incomes.

Policy 3C-3: Support development of manufactured and mobile home parks and establish design criteria that will enable them to fit into the surrounding community.

Goal 3E: Provide for future housing needs by responding to changing household demographics.

Policy 3E-1: Review and revise existing regulations to identify inhibitions to housing for the varying preferences of those needing housing. Focus on population segments with particular needs such as temporary, transitional, or emergency housing.

Goal 3F: Provide incentives to create affordable housing.

Policy 3F-3: Support innovative housing ideas including co-housing (essentially a micro-community with some centralized facilities), elder cottages (housing units for healthy but aging family members), accessory dwelling units (ADUs) in single family zoning of all jurisdictions, including cottage designs available at planning department front desk, and shared living residences or group quarters in UGAs, and educate the public about them.

Table 2. Zoning Districts where Tiny Homes would be allowed (and by what Permit⁴) under the proposed rules

Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Urban Residential (UR)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit⁵ (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence⁶ (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM)
Urban Residential – Medium Density (URM)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (AAU) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Urban Residential Mixed (UR-MX)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (AAU) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Residential Rural (RR)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM)
Rural Residential-Island (RR-I)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Eliza Island (EI)	<ul style="list-style-type: none"> Primary residence (P) 	<ul style="list-style-type: none"> Primary residence (P) 		

⁴ P = Permitted; ACC = Accessory Use; ADM = Administrative Approval; CUP = Conditional Use

⁵ For all ADUs – Some zoning districts have a minimum lot size requirement for detached ADUs and some areas require that accessory apartments and detached ADUs are consistent with the underlying zoning.

⁶ For all Temporary Caregiver/Invalid Residences – One year, renewable, plus additional standards.

Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Rural (R)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Temporary Recreational Occupancy (P)
Point Roberts Transitional Zone (TZ)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM)
Agriculture (AG)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Farm Worker Residence (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Farm Worker Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Farm Worker Residence (ADM)
Rural Forestry (RF)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Forestry Worker Residence (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Temporary Recreational Occupancy⁷ (P) • Recreational Vehicle Parks (CUP) • Temporarily⁸ in an RV Park (P)
Commercial Forestry (CF)				<ul style="list-style-type: none"> • Temporary (6 mos.) living quarters for trail crews, fire crews, nursery crews, logging crews, maintenance crews and watchmen (P)
Recreation & Open Space (ROS)	<ul style="list-style-type: none"> • Caretaker's Residence (P) 	<ul style="list-style-type: none"> • Caretaker's Residence (P) 		
Rural General Commercial (RGC)				
Neighborhood Commercial Center (NC)				

⁷ For all Temporary Recreational Occupancies – On individual lots, the maximum length of stay of any recreational vehicle on a lot may not exceed a total of 120 days per calendar year; provided, that no accessory guest RV shall remain on the subject lot for more than 14 consecutive days nor more than 30 days total per calendar year.

⁸ In RV Parks the maximum length of stay may not exceed 180 days for any one-year time period.

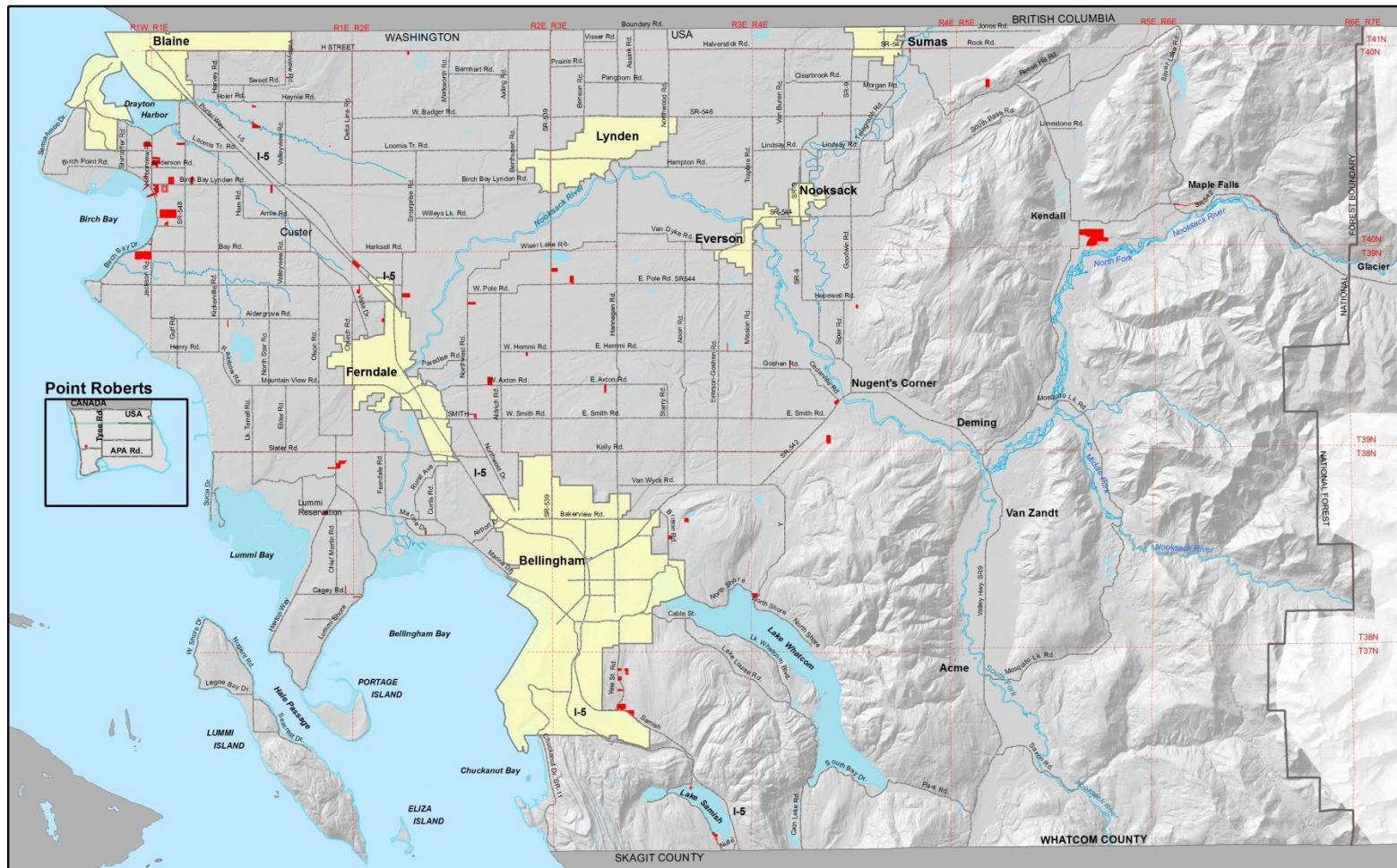
Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Small Town Commercial (STC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 		<ul style="list-style-type: none"> Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
General Commercial (GC)				
Tourist Commercial (TC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
Resort Commercial (RC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
Light Impact Industrial (LII)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
General Manufacturing (GM)				
Heavy Impact Industrial (HII)				
Rural Industrial And Manufacturing (RIM)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
Airport Operations (AO)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
Point Roberts Special District (overlay zone)	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone, plus: Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone, plus: Temporary Recreational Occupancy (P)
Cherry Point Industrial (CP)				

Table 3. Mobile Home & RV Parks in Whatcom County

Name	Type	Zone	Acres	Assessor LUCODE	Total No. of Units	No. of Park Model Spaces	No. of MH Spaces
Agate Bay Mobile Estates	MH Park - Leased Spaces	R5A	10.9	1525 M/H PK 25 SP	25		25
Baywood MHP	MH Park - Leased Spaces	URM6	23.4	1599 M/H PK+99 SP	47		47
Birch Bay Retirement Park	MH Park - Leased Spaces	UR4	3.9	1518 M/H PK 18 Sp	17		17
Birch Bay Trailer Court	MH Park - Leased Spaces	RC	33.9	1152 M/H IO-inPK	151	18	133
Britton Rd. MH Court	MH Park - Leased Spaces	UR	4.8	1500 M/H PK	4		4
Calmore Cove MHP	MH Park - Leased Spaces	RR2/R2A	15.8	1545 M/H PK 45 SP	41	5	36
Cedar Grove MHP	MH Park - Leased Spaces	R10A	26.3	1599 M/H PK+99 SP	105		105
Double L Ranch MHP	MH Park - Leased Spaces	R5A	15.3	1524 M/H PK 24 SP	24	2	22
Edgewater Resourt MHP	MH Park - Leased Spaces	RC	4.8	1547 M/H PK 47 SP	25	12	13
Evergreen Manor MHP	MH Park - Leased Spaces	R5A	19.6	1560 M/H PK 60 SP	43		43
Evergreen Retreat MHP	MH Park - Leased Spaces	R10A	1.5	1516 M/H PK 16 SP	16		16
Fairfield Mobile Court	MH Park - Leased Spaces	UR4	10.2	1526 M/H PK 26 SP	17		17
Forest Park MHP	MH Park - Leased Spaces	URMX6-12	5.6	1553 M/H PK 53 SP	50		50
Gulfside MHP	MH Park - Leased Spaces	RR1	1.0	1505 M/H PK 5 SP	4		4
Harborview MHP	MH Park - Leased Spaces	R5A	19.9	1516 M/H PK 16 SP	15		15
Hartvig MHP	MH Park - Leased Spaces	UR4	6.1	1508 M/H PK 8 SP	7		7
Hidden Valley MHP	MH Park - Leased Spaces	R5A	1.3	1508 M/H PK 8 SP	6	4	2
Hidden Village Estates	MH Park - Leased Spaces	R2A	14.6	1599 M/H PK+99 SP	12	2	10
Hilltop Haven MHP	MH Park - Leased Spaces	URM6-12/R10A	8.5	1525 M/N PK 25 SP	25		25
Lake Terrell Mobile Ranch	MH Park - Leased Spaces	R5A	5.0	1516 M/H PK 16 SP	7		7
Larsens Mobile Manor	MH Park - Leased Spaces	RR2A	9.3	1555 M/H PK 55 SP	55		55
Mantheys MHP	MH Park - Leased Spaces	R10A	23.2	1557 M/H PK 57 SP	57		57
Maple Leaf Court	MH Park - Leased Spaces	R10A	9.6	1522 M/H PK 22 SP	22		22
Maplewood Meadows	MH Park - Leased Spaces	R5A	20.4	1520 M/H PK 20 SP	19		19
Marine Dr. MHP	MH Park - Leased Spaces	RR2A	4.3	1511 M/H PK 11 SP	10		10
Mobile Home Manor	MH Park - Leased Spaces	AG	1.3	1511 M/H PK 11 SP	11		11
Mt. Baker MHP	MH Park - Leased Spaces	R5A	8.5	1530 M/H PK 30 SP	20		20
Nooksack Valley MHP	MH Park - Leased Spaces	AG	1.7	1507 M/H PK 7 SP	7		7
NW Mobile Park	MH Park - Leased Spaces	AG	11.8	1526 M/H PK 26 SP	27		27

Plaza Park	MH Park - Leased Spaces	R5A	14.1	1591 M/H PK 91 SP	27	2	25
Royal Coachman Mobile Estates	MH Park - Leased Spaces	R5A	9.9	1528 M/H PK 28 SP	28		28
See Haven MHP	MH Park - Leased Spaces	UR4	1.3	1512 M/H PK 12 SP	9		9
Sumas MHP	MH Park - Leased Spaces	AG	2.1	1508 M/H PK 8 SP	8		8
Sunny Point Trailer Park	MH Park - Leased Spaces	STC	4.2	1508 M/H PK 8 SP	2		2
Gulf Aire Condo	MH Park - Owned Spaces	TZ		1417 M/H IN CONDO PP	16		16
Lake Samish Terrace	MH Park - Owned Spaces	RR2		1417 M/H IN CONDO PP	53		53
Latitude 49 Resort Park Condo	MH Park - Owned Spaces	RC		1418 PRK MOD IN CONDO RP	315	315	0
Smallwood Shores Condo	MH Park - Owned Spaces	R5A		1416 M/H IN CONDO RP	10		10
Wildwood Resort Condo	MH Park - Owned Spaces	R5A		1418 PRK MOD IN CONDO RP	84	84	0
Beachwood Resort	RV Park	URM6	76.6	7516 RV PARKS	326	326	
Birch Bay Leisure Park	RV Park	URM6	81.1	7816 RV PARKS	603	603	
Black Mt. Ranch	RV Park	R5A	171.7	7499 OTHER RECREAT	315	315	
North Bay Park	RV Park	URM6	2.5	7516 RV PARKS	33	33	
Richmond Resort	RV Park	RC	1.4	7516 RV Parks	10	10	
Sea Breeze RV Park (PM within RV Park)	RV Park	RC	7.9	1155 PM IO-in PK	4	4	
Whatcom Meadows	RV Park	R5A	159.1	7519 OTHER RESORTS	146	146	
Total					2858	1881	977

Table 4. Locations of Mobile Home and RV Parks in Whatcom County



Whatcom County

Legend

■ Mobile Home Park

June 2021

USE OF WHATCOM COUNTY'S GIS DATA IMPLIES THE USER'S AGREEMENT WITH THE FOLLOWING STATEMENT: Whatcom County disclaims any warranty of merchantability or warranty of fitness of this map for any particular purpose, either express or implied. No representation or warranty is made concerning the accuracy, currency, completeness or quality of data depicted on this map. Any use of this map assumes all responsibility for use thereof, and further agrees to hold Whatcom County harmless from and against any damage, loss, or liability arising from any use of this map.

0 0.75 1.5 3 4.5 6 miles



V. Draft Findings of Fact and Reasons for Action

Staff recommends the Council adopt the following findings of fact and reasons for action:

1. The County Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.
2. Additionally, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options.
3. PDS submitted an application (PLN2021-00012) to make amendments to Whatcom County's zoning regulations (WCC Title 20) to provide these affordable housing options.
4. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on May 20, 2021.
5. Notice of the subject amendments was submitted to the Washington State Department of Commerce on May 20, 2021, for their 60-day review.
6. On June 24, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed amendments.
7. The County Council held a duly noticed public hearing on the proposed amendments on October 29, 2021, and reviewed and considered the Planning Commission recommendation, staff recommendations, and public comments on the proposed amendments.
8. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.
9. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

VI. Proposed Conclusions

1. The amendments are in the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

VII. Recommendations

1. Planning and Development Services recommends that the Council adopts the proposed regulations shown in Exhibit A.
2. The Planning Commission voted 7-0 to recommend approval of the proposed amendments to the County Council.

PROPOSED BY: _____
INTRODUCTION DATE: _____

ORDINANCE NO. _____

ADOPTING AMENDMENTS TO WHATCOM COUNTY CODE TITLE 20 ZONING TO PROVIDE ADDITIONAL AFFORDABLE HOUSING OPTIONS, INCLUDING ALLOWING AND REGULATING TINY HOMES AND ALLOWING DUPLEXES IN PLANNED UNIT DEVELOPMENTS

WHEREAS, The County Council is interested in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.

WHEREAS, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options; and,

WHEREAS, The Whatcom County Council reviewed and considered Planning Commission recommendations, staff recommendations, and public comments on the proposed amendments; and

WHEREAS, The County Council hereby adopts the following findings of fact:

FINDINGS OF FACT

1. The County Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.
2. Additionally, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options.
3. PDS submitted an application (PLN2021-00012) to make amendments to Whatcom County's zoning regulations (WCC Title 20) to provide these affordable housing options.
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5. Notice of the subject amendments was submitted to the Washington State Department of Commerce on May 20, 2021, for their 60-day review.
6. On June 24, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed amendments.
7. The County Council held a duly noticed public hearing on the proposed amendments on October 23, 2021, and reviewed and considered the Planning Commission recommendation, staff recommendations, and public comments on the proposed amendments.
8. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.
9. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

CONCLUSIONS

1. The amendments to the development regulations are in the public interest.

2. The amendments are consistent with the Whatcom County Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

Section 1. Amendments to the Whatcom County Code are hereby adopted as shown in Exhibit A.

Section 2. Staff is authorized to work with Code Publishing to correct and update any cross-references made ineffective by these amendments.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED as to form:

() Approved () Denied

Civil Deputy Prosecutor

Satpal Sidhu, Executive

Date: _____

Exhibit A: Proposed Amendments to the Whatcom County Code to Allow and Regulate Tiny Homes & to Allow Duplexes in Planned Unit Developments

Regarding Tiny Homes:

TITLE 20 ZONING

Chapter 20.80 Supplementary Requirements

20.80.950 Mobile Home (including Manufactured Tiny Home) and Recreational Vehicle Park Standards.

All mobile home ~~and recreational vehicle~~ parks shall meet the following standards:

- (1) Mobile home parks shall be developed through either a Binding Site Plan pursuant to WCC Title 21 (Land Division) or by condominium pursuant to Chapter 64.34 RCW (Condominium Act). In either case:
 - (a) An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.
 - ~~(a)~~(b) A declaration of covenants addressing and ensuring long-term compliance with the appropriate requirements herein shall be submitted for review and approval.
 - (c) Each rental or lease space shall be numbered on the site plan and the number shall be prominently displayed on the site.
- (2) Where not specified by the applicable zoning district, mobile home parks shall have:
 - (a) A maximum density of ~~seven~~ 7 lease spaces per acre when public water and sewer are provided;
 - (b) A maximum density of ~~three~~ 3 lease spaces per acre when public water and sewer are not provided;
 - (c) A minimum parcel size of ~~two~~ 2 acres.
- ~~(3) Where not specified by the applicable zoning district, recreational vehicle parks shall have:~~
 - ~~(a) A maximum density of 15 lease spaces per acre when public water and sewer are provided;~~
 - ~~(b) A maximum density of seven lease spaces per acre when public water and sewer are not provided;~~
 - ~~(c) A minimum parcel size of two acres.~~
- ~~(4)~~(3) Mobile home parks shall provide storage area for boats, recreational vehicles, and other large items. Recreational vehicle parks may provide such storage areas. Said storage areas shall be screened consistent with these standards.
- ~~(5)~~(4) Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property. Within a mobile home park, no mobile home, other major structure, or outdoor storage shall be located closer than 20 feet to the perimeter of the site.

Comment [CES1]: Mobile home and RV park standards have been separated into 2 sections, with the appropriate existing & new rules placed into each

Comment [CES2]: A requirement of ESSB 5383 for tiny home parks (and it should be for mobile home parks).

~~(6)~~(5) Along the edges of mobile home parks, walls or vegetative screening shall be provided where needed to protect residents from undesirable views, lighting, noise, or other off-site influences, or to protect occupants of adjoining property from potentially adverse influences within the mobile home park. In particular, extensive off-street parking areas and service areas for loading and unloading other than passenger vehicles, and for storage and collection of trash and garbage, shall be screened.

~~(7)~~ A 30-foot landscaped buffer area or screening composed of suitable native vegetation shall be placed around all common storage areas and at all perimeters of any recreational vehicle park. The purpose of said buffer is to protect on a year-round basis the adjacent property or roadways from unsightliness, visual distraction and/or noise impacts. The buffer area may be reduced where it can be demonstrated that alternative screening can adequately accomplish the purposes stated in this subsection. Perimeter buffers shall be supplemented by a fence or other device where trespass is a potential problem. No structures, development or other activities shall occur within any buffer areas; provided, that trails may be located within those buffer areas which are at least 50 feet in width.

~~(8)~~(6) There shall be landscaping developed consistent with WCC 20.80.300 ([Landscaping](#)) within open areas of ~~the mobile home park and recreational vehicle~~ parks not otherwise used for park purposes. Such open areas and landscaping shall be continually and properly maintained.

~~(9)~~(7) Mobile homes ~~and recreational vehicle~~ parks shall keep 40% ~~percent~~ of the site free of buildings, structures, parking areas, and other impervious surfaces.

~~(10)~~ An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.

~~(11)~~(8) On-site recreational amenities with at least one substantial facility serving the users of a park or identified area shall be provided. Such substantial facilities may include tennis courts, children's play areas with equipment, or a swimming pool. The type and size of facility shall be appropriate to the type and amount of clientele being served.

~~(12)~~ Maximum length of stay in recreational vehicle parks shall not exceed 180 days for any one-year time period.

~~(13)~~(9) Interior roads within mobile home ~~and recreational vehicle~~ parks shall be private, unless the County Engineer determines that the development of public roads is necessary.

~~(14)~~(10) For each mobile home space there shall be provided and maintained at least two parking spaces conforming ~~with to zoning ordinance~~ the requirements of WCC 20.80.500, et seq. (Off-Street Parking and Loading Requirements). In addition to occupant parking, guest and service parking shall be provided within the boundaries of the park at a ratio of one parking space for each two mobile home spaces.

~~(15)~~(11) There shall be a minimum of 10 feet of separation maintained between all mobile homes on the site. Accessory structures may be located no closer than 10 feet to any mobile home or five feet to other accessory structures.

~~(12)~~ Each rental space shall be numbered on the site plan and the number shall be prominently displayed on the site. All mobile home parks shall comply with WCC Chapter 24.04 (Recreational Vehicle Park and Subdivision Rules) regarding utility provision. Utility (wastewater, water, electricity) hook-ups shall be provided for each rentable or leasable space.

Comment [CES3]: Moved above

20.80.955 Recreational Vehicle (including Tiny Homes on Wheels) Park Standards.

All recreational vehicle parks shall meet the following standards:

- (1) Recreational vehicle parks shall be developed through either a Binding Site Plan pursuant to WCC Title 21 (Land Division) or by condominium pursuant to Chapter 64.34 RCW (Condominium Act). In either case:
 - (a) An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.
 - (b) A declaration of covenants addressing and ensuring long-term compliance with the appropriate requirements herein shall be submitted for review and approval.
 - (c) Each rental or lease space shall be numbered on the site plan and the number shall be prominently displayed on the site.
- (2) Where not specified by the applicable zoning district, recreational vehicle parks shall have:
 - (a) A maximum density of 15 lease spaces per acre when public water and sewer are provided;
 - (b) A maximum density of 7 lease spaces per acre when public water and sewer are not provided;
 - (c) A minimum parcel size of 2 acres.
- (3) Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property.
- (4) A 30-foot landscaped buffer area or screening composed of suitable native vegetation shall be placed around all common storage areas and at all perimeters of any recreational vehicle park. The purpose of said buffer is to protect on a year-round basis the adjacent property or roadways from unsightliness, visual distraction, and/or noise impacts. The buffer area may be reduced where it can be demonstrated that alternative screening can adequately accomplish the purposes stated in this subsection. Perimeter buffers shall be supplemented by a fence or other device where trespass is a potential problem. No structures, development, or other activities shall occur within any buffer areas; provided, that trails that are at least 5 feet in width may be located within those buffer areas.
- (5) There shall be landscaping developed consistent with WCC 20.80.300 (Landscaping) within open areas of recreational vehicle parks not otherwise used for park purposes. Such open areas and landscaping shall be continually and properly maintained.
- (6) Recreational vehicle parks shall keep 40% of the site free of buildings, structures, parking areas, and other impervious surfaces.
- (7) On-site recreational amenities with at least one substantial facility serving the users of a park or identified area shall be provided. Such substantial facilities may include tennis courts, children's play areas with equipment, or a swimming pool. The type and size of facility shall be appropriate to the type and amount of clientele being served.
- (8) Maximum length of stay in recreational vehicle parks shall not exceed 180 days for any one-year time period.
- (9) Interior roads within recreational vehicle parks shall be private, unless the County Engineer determines that the development of public roads is necessary.
- (10) All recreational vehicle parks shall comply with WCC Chapter 24.04 (Recreational Vehicle Park and Subdivision Rules) regarding utility provision. Utility (wastewater, water, electricity) hook-ups shall be provided for each rentable or leasable space designated for park model trailers and Type 1

Comment [CES4]: A requirement of ESSB 5383 for tiny home parks.

Comment [CES5]: Moved from 20.97.340 (definition of RV Park), as these are regulations, not definitions.

Comment [CES6]: A requirement of ESSB 5383 for tiny home parks.

THOWs. Spaces designated solely for self-contained recreational vehicles may use communal facilities.

Chapter 20.97 Definitions

20.97.250 Mobile Home (a.k.a, Manufactured Home).

“Mobile home” means a dwelling unit designed for long-term human habitation by one family and having complete living facilities; constructed and fabricated into a complete unit at a factory and capable of being transported to a location of use on its own chassis and wheels; identified by a model number and serial number by its manufacturer; and designed primarily for placement on an impermanent footing. This includes manufactured tiny homes (see “Tiny Home.”) A unit ~~which that~~ was originally built as a mobile home but ~~which~~ has substantially lost its mobility ~~through by~~ being placed on a permanent footing, the tongue and axle removed, skirting is installed, and ~~which that~~ wholly meets state standards for such units, shall not be considered to be a mobile home and shall be treated as a single-family dwelling for the purpose of this ~~ordinance code only when it is fixed to a permanent footing and tongue and axle have been removed and skirting installed.~~

20.97.255 Mobile Home Park.

“Mobile home park” means any parcel or adjacent parcels of land in the same ownership ~~which that~~ is ~~utilized~~ used for occupancy by more than two mobile homes. This term shall not be construed to mean campgrounds, recreational vehicle parks, or tourist facilities for camping.

20.97.292 Park Model Trailer.

“Park model trailer” means a trailer designed to provide seasonal or temporary living quarters; ~~which are not self-contained and thus may need to be used with~~ temporarily connected ~~editions~~ to utilities ~~necessary~~ for operation of installed fixtures and appliances; ~~it~~ has a gross trailer area not exceeding 400 square feet; ~~or and~~ is approved by the state as a park model trailer. This includes Type 1 THOWs (see “Tiny Home on Wheels”).

20.97.335 Recreational Vehicle.

“Recreational vehicle” means a motor vehicle; or portable structure capable of being transported on ~~the~~ highways by a motor vehicle; ~~that is~~ designed and intended for casual or short-term human occupancy for travel, recreational, and vacation uses without a permanent foundation; identified by a model number (RV), serial number, and vehicle registration number; and equipped with limited water storage and other self-contained living facilities. For the purposes of these regulations, the term “recreational vehicle” shall include self-contained campers, motor-homes, Type 2 Tiny Home on Wheels, and travel trailers, ~~and but~~ shall not include park model trailers or Type 1 Tiny Home on Wheels, as they are not self-contained units.

20.97.340 Recreational Vehicle Park.

“Recreational vehicle park” means a parcel of private land in which three or more contiguous sites are primarily for occupancy by recreational vehicles for travel, recreation, or vacation uses. ~~For~~ Within

mobile home parks, only spaces that are designated and/or are used for recreational vehicles shall constitute a recreational vehicle park. ~~Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property.~~ For the purposes of these regulations, the term “recreational vehicle park” shall include camping clubs.

Comment [CES7]: These are regulations, not definitions, and have been moved to 20.80.955.

20.97.435.03 Tiny Home.

~~A tiny home is a dwelling unit that is 400 square feet or less in floor area (excluding sleeping lofts). For the purposes of this code there are two types of tiny homes, as described below. For Tiny homes on Wheels see WCC 20.97.435.04.~~

Comment [CM8]: This portion matches the definition in appendix Q in the IRC. The size is also consistent with the definition of a park model in WAC 296-150P-00200.

- ~~1. *Site-Built Tiny Home.* A tiny home built on-site on a permanent foundation that meets the minimum requirements of the International Residential Code (IRC), including provisions of Appendix Q, and is reviewed and inspected by Whatcom County. For the purposes of this code they are equivalent to and are permissible under the same rules as any standard single-family dwelling.~~
- ~~2. *Manufactured Tiny Home.* A factory-built tiny home bearing a certification tag from the Washington State Department of Labor and Industries (L&I) or other approved third party inspection agency stating it is approved for use as a single-family residence per the current edition of the International Residential Code (IRC) or Housing and Urban Development (HUD) requirements. Manufactured tiny homes usually have wheels and a chassis when they come out of the factory, and typically have the wheels removed prior to placing it on its manufacturer-approved foundation. For the purposes of this code they are equivalent to and are permissible under the same rules as any standard mobile home.~~

20.97.435.04 Tiny Home on Wheels (THOWs)

~~A Tiny Home on Wheels is a portable structure licensed to be transported on the highways by a motor vehicle; designed and intended for casual or short-term human occupancy for travel, recreational, vacation and other temporary uses without a permanent foundation; in a space of 400 square feet or less in floor area (excluding sleeping lofts). For the purposes of this code there are two types of tiny homes on wheels, as described below.~~

- ~~1. *“Type 1 THOW”* is a THOW that is not self-contained, and thus needs to be temporarily connected to utilities necessary for operation of installed fixtures and appliances. For the purposes of this code they are equivalent to and are permissible under the same rules as for Park Model Trailers.~~
- ~~2. *“Type 2 THOW”* is a THOW that is self-contained and may use communal utility services (water, wastewater). For the purposes of this code they are equivalent to and are permissible under the same rules as for Recreational Vehicles (RVs).~~

Regarding Duplexes in Urban Zones via Planned Unit Developments:

Title 20 ZONING

Chapter 20.85 Planned Unit Developments (PUD)

20.85.050 Permitted Uses.

.051 Uses ~~outright permitted-allowed~~ in a planned unit development shall include those permitted, accessory, and conditional uses allowed in the underlying zone district(s), ~~as well as and~~ such other uses as provided in WCC 20.85.052 ~~to through~~ 20.85.055. For areas located within a Water Resource Protection Overlay District, the more restrictive use provisions of Chapter 20.71 WCC shall apply.

.052 In addition to the uses allowed in the underlying zone, the following uses shall be allowed outright ~~where when~~ they are only serving the planned unit development and ~~where~~ all other applicable standards are met:

- (1) Community buildings;
- (2) Indoor recreation facilities, including athletic clubs or fitness centers, racquetball courts, swimming pools, tennis courts, or other similar uses;
- (3) Outdoor recreation facilities, including swimming pools, tennis courts, recreational trails, or similar use; and
- (4) Recreational vehicle storage areas.

.053 ~~Even though they may not be allowed in the underlying zone(s).~~ A planned unit development may also authorize add the following additional land uses ~~activities, as follows;~~ provided the criteria of WCC 20.85.054 are met:

- (1) ~~For In~~ the Urban Residential and Rural zones, duplexes and multifamily dwellings consistent with the density requirements of the underlying zone, except as that may be modified by the provisions of WCC 20.85.108 (Density Increases). The number of units attached may be greater than would otherwise be allowed by the underlying zoning.
- (2) ~~In For~~ the Urban Residential and Urban Residential Medium zones, duplexes and those uses allowed in the Neighborhood Commercial zone ~~are may~~ also be permitted. In addition, both resort- and non-resort-oriented transient accommodations, such as inns or hotels, may be permitted; provided, that:
 - (a) The total number of sleeping units shall not exceed 50%-percent of the total number of dwelling units that would be allowed on the property by the underlying zone regulations;
 - (b) Each sleeping unit shall count as one dwelling unit for the purpose of determining the total number of dwelling and sleeping units, in combination, permitted on the property;
 - (c) It can be demonstrated that the overall development will not generate more traffic than conventional residential development at the density allowed in the zone.
- (3) ~~In For~~ the General Commercial zone, those uses allowed in the Urban Residential Medium zone are ~~appropriate~~ allowed.
- (4) ~~In For~~ the Resort Commercial zone:

Comment [CES9]: Policy change

Comment [CES10]: Policy change

- (a) Multiple single-family dwellings per lot are permitted if developed as condominiums under state law; and
- (b) Single-family attached dwellings (at a base gross density of ~~seven-7~~ units/acre); ~~and.~~
- (5) ~~In For~~ the Light Impact Industrial zone, those uses allowed in the Urban Residential Medium, Neighborhood Commercial, ~~and/or~~ General Commercial zones are ~~appropriate~~ allowed.

.054 In order ~~to expand for those additional~~ uses listed ~~allowed~~ in WCC 20.85.053 to be authorized, the applicant ~~shall~~ must demonstrate:

- (1) That the primary land use activity of the planned unit development ~~shall be those uses~~ is one allowed by the underlying zone district;
- (2) That the ~~expanded~~ additional uses will benefit and serve the residents or employees of the proposed planned unit development; and
- (3) That all other applicable approval criteria and standards are met.

.055 Where a proposed development is located in two or more zone districts, the uses allowed in the applicable districts may be located on any portion of the site; provided, that all applicable standards are met.

.056 For purposes of determining appropriate standards, the requirements of the zone district allowing the use would apply. If the use is allowed by two or more districts, the lesser standards would apply.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-548

File ID:	AB2021-548	Version:	1	Status:	Held In Committee
File Created:	09/15/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Discussion		
Assigned to:	Council Planning and Development Committee	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: cstrong@co.whatcom.wa.us <<mailto:cstrong@co.whatcom.wa.us>>

TITLE FOR AGENDA ITEM:

Discussion and status update of proposed amendments to the Whatcom County Code regarding short-term rentals

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Discussion and status of proposed amendments to Title 20 (Zoning) and Title 23 (Shoreline Management) regarding short-term rentals (p.k.a. vacation rentals)

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
09/28/2021	Council Planning and Development Committee	HELD IN COMMITTEE	Council Planning and Development Committee

Attachments: Staff memo, Exhibit B, Exhibit A



Memorandum

TO: The Honorable Whatcom County Council's Planning & Development Committee
The Honorable Satpal Sidhu, County Executive

FROM: Cliff Strong, Senior Planner

THROUGH: Mark Personius, AICP, Director

DATE: September 15, 2021

SUBJECT: Update on Vacation Rental Regulations – Titles 20 and 23 Amendments

Purpose

The purpose of today's discussion is to update the Council on where the proposed vacation rental amendments to WCC Titles 20 (Zoning) and 23 (Shoreline Management Program) stand.

Background

In late 2014 after having received complaints from citizens neighboring vacation rental units the Council started a process to adopt regulations pertaining to vacation rentals (a.k.a., short-term rentals or STRs). Whatcom County Code (WCC Title 20, Zoning) currently does not prohibit the rental of single-family dwellings, either short- or long-term. Lacking such a prohibition, Planning and Development Services interprets Title 20 to permit vacation rentals wherever single-family dwellings are permitted.

When the Council's review process first started the Council was provided a range of regulatory schemas, including:

1. **Permitted outright as a single family dwelling.** Allow rentals of any duration in residential zones without conditions.
2. **Permitted with performance standards.** Allow vacation rentals as a permitted use in all rural and residential zones, subject to conditions.
3. **Permitted in specified locations, with performance standards.** Same as 2 but permitted only in certain zones or geographic areas.
4. **Permitted with registration.** Same as 2 or 3 but with licensing or registration requirements.
5. **Prohibition.** Vacation rentals are not permitted uses in any residential zones.

After a series of discussions¹ and a recommendation from the Planning Commission², the Council chose a schema that would:

- Add vacation rentals as an accessory use in UR, URM, URMX, RR, RRI, TZ, RC, STC, AG, and R, and as a conditional use in the Lake Whatcom Watershed Overlay District;

¹ The Council has discussed this issue in 7 workshops from 9/16/2014 through 9/15/2019.

² The Planning Commission also held several workshops on the Title 20 amendments, and a public hearing on 1/8/2015.

- Adopt performance standards addressing parking, maximum numbers of guests, signage, health and safety measures, etc.;
- Require those on septic to provide a current satisfactory Report of System Status upon registration (and thereafter every three years);
- Require owners to annually register with Planning and Development Services; and,
- Amend the definitions of “bed and breakfast establishment” and “bed and breakfast inn” and add a new definition of “vacation rental unit” (see Exhibit A).

So as to maintain consistency between zoning (Title 20) and the Shoreline Management Program (SMP), amendments were also proposed to Title 23 (Exhibit B). These amendments would:

- Include vacation rental units and bed and breakfast establishments as part of a single-family residential use (rather than a commercial use) for purposes of determining permitted uses in various shoreline designations;
- Remove bed and breakfasts as a conditional use in the Urban Conservancy and Conservancy shoreline designations; and,
- Amend several definitions and add a definition of “vacation rental unit.”

Both sets of draft amendments have been reviewed by the Planning Commission, who recommended approval. In 2016, the Council held a hearing on the SMP amendments and passed Resolution 2016-039, forwarding the SMP amendments to the Department of Ecology (DOE) for its review (which approved them), but Council never adopted an ordinance effecting them³. Nor has Council held a hearing or adopted the Title 20 (Zoning) amendments, having chosen to hold off until DOE approved the Title 23 (SMP) amendments. Staff last brought this to the Council’s Planning & Development Committee on 1/15/2019, where they voted to hold it in committee. The Committee has not discussed it since.

Vacation Rental Registration

Another reason we wanted to discuss this matter with the Committee is that we have found a possible system for managing the annual registration component in which Council has been interested. We have been exploring a program from a software vendor (Granicus⁴) called *Host Compliance*. They offer a suite of six modules, to which a jurisdiction can subscribe (to any number of modules).

- *Address Identification* – Automated monitoring of 60+ STR websites and online dashboard with complete address information and screenshots of all identifiable short-term rentals. Every address is quality checked by an analyst to ensure that address identification is accurate.
- *Compliance Monitoring* – Ongoing monitoring of STRs for zoning and permit compliance coupled with systematic outreach to illegal short-term rental operators. Identifies non-compliant properties and streamlines outreach efforts related to non-compliance.
- *Permitting & Registration* – Online forms and back-end systems to streamline the registration process and electronically capture required documentation, signatures, and payments. Makes permitting and registration processes available easy and accessible, guiding applicants through what can be complex permitting workflows.

³ These amendments, as tentatively approved by Council, have now been included in the SMP Periodic Update amendments that Council will be considering.

⁴ Yes, the same company that manages Council’s agendas through their program *Legistar*.

- *24/7 Hotline* – A dedicated phone number to make it easy for neighbors to report, prove, and resolve non-emergency short-term rental related problems in real-time, any day, at any hour.
- *Tax Collection* – Makes tax reporting and collection easy for hosts and staff to submit and review online.
- *Rental Activity Monitoring* – Sends estimated occupancy and rental revenue for each property and identifies audit candidates who are under-reporting on taxes or exceeding occupancy regulations.

Through our initial exploration of this service Granicus has already provided us with updated data regarding the number of vacation/short-term rentals in the County listed on-line⁵. In August of this year Granicus ran a search and found 1,656 unique rental units, with a mean nightly rental rate of \$207 (addresses are not provided).

At this point PDS suggests that the first four modules listed above would be useful to the County, especially if Council still wants to require registration of vacation rentals. We raise this because if the Council agrees with our assessment then we would need to contract with a software vendor (such as Granicus or others) and get the system operational before these regulations take effect (our understanding is that such software programs typically take 3-6 months to implement and test the system).

But what's it cost, you ask? Granicus charges a per STR Listing/Rental Unit fee:

Module	Annual Cost per STR Listing/Rental Unit Fee ⁶	Estimated Annual Total Cost (based on number of STR units)
Address Identification	\$22.50	\$57,690
Compliance Monitoring	\$11.25	\$21,071
Permitting & Registration	\$8.00	\$14,984
24/7 Hotline	\$9.00	\$16,857
Tax Collection	\$8.00	N/A ⁶
Rental Activity Monitoring	\$15.00	N/A ⁶
Total		\$110,602

The annual cost for the four modules PDS recommends would be about \$110,602. However, this particular vendor suggested that we set our annual registration fee at two times the mean nightly rate that operators charge, which would be about \$400, which could generate a potential maximum of roughly \$662,400 if all known STR's were registered and paid.

We should also point out that the City of Bellingham has already contracted with Granicus for this service.

What's Next?

Staff would like to get direction from the Committee, especially as to whether to continue discussion or to schedule an ordinance for introduction and action by the County Council. We would also like to know if Council would support contracting with a software vendor to operate and manage such a registration system. If so there's staff work to be done on that matter, including preparation of a supplemental budget request and possible RFP and contract.

At this point, if the Planning & Development Committee is still interested in pursuing this⁷, we would recommend that Council:

⁵ There are now at least 125 such on-line short term rental platforms.

⁶ According to Granicus, this is roughly what they charge all their clients, and they don't expect the per unit prices to increase.

- Include the amendments to Title 23 in the SMP Periodic Update (as staff has already done) and adopt them as part of that process (ultimately Council will need to pass an ordinance after DOE has reviewed and approved our Periodic Update); and,
- At roughly the same time as Council does a final approval of the SMP Periodic Update, hold a public hearing and adopt the amendments to Title 20.

If the Council chooses to adopt the ordinance, staff would suggest making it effective several months out. This would give PDS time to develop the registration system (through a software vendor), to conduct outreach to vacation rental owners, and to add registration fees to the Unified Fee Schedule.

Attachments

- Exhibit A – Draft Title 20 (Zoning) amendments
- Exhibit B – Draft Title 23 (Shoreline Master Program) amendments

⁷ After all, it has been a several years and Council make up has changed.

EXHIBIT B

Whatcom County Code Title 23

Shoreline Management Program

AMENDMENTS

(Note: Changes recommended by the Department of Ecology are highlighted in yellow.)

CHAPTER 23.30 SHORELINE JURISDICTION AND AREA DESIGNATIONS

.....

23.30.055 Urban conservancy shoreline area – Conditional uses.

The following may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- A. All other residential development.
- B. Low intensity water-oriented commercial limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities subject to the criteria in WCC 23.100.050. Low intensity non-water-oriented commercial limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities, subject to the criteria in WCC 23.100.050(B)(1)(d).

.....

23.30.095 Conservancy shoreline area – Conditional uses.

The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- A. All other residential development.
- B. Low intensity water-oriented commercial limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities. Low intensity non-water-oriented commercial uses limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities may be permitted as a conditional use, subject to the criteria in WCC 23.100.050(B)(1)(d).

.....

CHAPTER 23.60 SHORELINE PERMITS AND EXEMPTIONS

.....

23.60.070 Fees.

- A. Required fees for all shoreline substantial development permits, shoreline conditional use permits, shoreline variances, statements of exemption, appeals, preapplication conferences and other required reviews and/or approvals shall be paid to the county at the time of application in accordance with the Whatcom County unified fee schedule in effect at that time.
- B. When any given project requires more than one of the following permits or applications, the total amount of shoreline fees shall be reduced by 25 percent:
 - 1. Preliminary plat application.
 - 2. Rezone application.

3. Major development permit.
4. Planned unit development.
5. Binding site plan.
- C. When any project requires a shoreline conditional use permit or shoreline variance in addition to a shoreline substantial development permit, the fees for the conditional use or variance shall be reduced by half.
- D. In the event that actions of an applicant result in the repetition of the review, inspections and other steps in the approval process, those items or steps repeated shall be charged to and paid by the applicant prior to any further processing of the application by the county. The cost shall be in accordance with the adopted fee schedule.
- E. If an application is withdrawn within 30 days of submittal, and no work has commenced at the site of the proposal for which the application was made, a refund of not more than 50 percent of the shoreline fees paid may be granted by the administrator. This amount may be reduced where staff time, public notice and other costs exceed 50 percent of the fees paid.
- ~~F. No fees shall be collected from an agency of Whatcom County government.~~

.....

CHAPTER 23.100 SHORELINE USE POLICIES AND REGULATIONS

.....

23.100.050 Commercial use.

Commercial development in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.

.....

C. Shoreline Area Regulations.

.....

3. Urban Conservancy. Low intensity water-oriented commercial use and development limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities may be permitted as a conditional use. Low intensity non-water-oriented commercial limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.

.....

7. Conservancy. Low intensity water-oriented commercial use and development limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities may be permitted as a conditional use. Low intensity non-water-oriented commercial limited to resort, ~~bed and breakfast~~, campgrounds and similar facilities may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.

.....

CHAPTER 23.110 DEFINITIONS

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23.110.020 B definitions

.....

4. "Bed and Breakfast" means a privately owned dwelling that is the primary residence(s) of the owner in which, for compensation, one to five rooms are used as sleeping units to house

or lodge individuals or families for periods of less than 30 days as transient visitors with or without limited food service. The use of the dwelling unit for the bed and breakfast shall be clearly incidental and subordinate to its use for residential purposes and the purpose of the applicable zoning district. At least one owner shall be present overnight when a guest room is rented.

(Scrivener's note: Subsequent numbers shall be renumbered)

.....

23.110.030 C definitions

.....

6. "Commercial development" means those developments whose primary use is for retail, service, or other commercial ~~business~~ activities. Included in this definition are developments such as hotels, motels, ~~bed and breakfast establishments~~, shops, restaurants, banks, professional offices, grocery stores, laundromats, recreational vehicle parks, commercial rental campgrounds and cabins, whether public or private, and indoor or intensive outdoor commercial recreation facilities. Not included are private camping clubs, marinas, signs, utilities, ~~bed and breakfasts, vacation rental units~~, and other development.

.....

23.110.180 R definitions

.....

7. "Residential development" means buildings, earth modifications, subdivision, and use of land primarily for human residence, including, but not limited to: single-family and multifamily dwellings, condominiums, mobile homes and mobile home parks, boarding homes, family daycare homes, adult family homes, retirement and convalescent homes, ~~bed and breakfasts, and vacation rental units~~, together with accessory uses common to normal residential use. Camping sites or clubs, recreational vehicle parks, motels, ~~and~~ hotels ~~and other transient housing~~ are not included in this definition.

.....

23.110.220 V definitions.

1. "Vacation Rental Unit" means a single-family dwelling unit, detached accessory dwelling unit, or accessory apartment that, for compensation, is rented as a single unit used to lodge individuals or families for a period of less than 30 days and where the owner is not present in the rented unit during the rental period. Individual sleeping rooms shall not be rented individually.

(Scrivener's note: Subsequent numbers shall be renumbered)

EXHIBIT A

Whatcom County Code Title 20 Zoning AMENDMENTS

Note: Proposed changes since the last version went to the P&D Committee are highlighted in yellow.

CHAPTER 20.20 URBAN RESIDENTIAL (UR) DISTRICT

.....

20.20.100 Accessory uses.

.....

.106 Bed and breakfast establishments, except in the Lake Whatcom Watershed Overlay District, where bed and breakfast establishments are a conditional use, per WCC 20.51.070.

.107 Vacation rental units, per WCC 20.80.960, except in the Lake Whatcom Watershed Overlay District, where vacation rental units are a conditional use, per WCC 20.51.070.

.....

CHAPTER 20.22 URBAN RESIDENTIAL – MEDIUM DENSITY (URM) DISTRICT

.....

20.22.100 Accessory uses.

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.107 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.24 URBAN RESIDENTIAL MIXED (UR-MX) DISTRICT

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20.24.100 Accessory uses.

.....

.107 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.32 RESIDENTIAL RURAL (RR) DISTRICT

.....

20.32.100 Accessory uses.

.....

.106 Bed and breakfast establishments, except in the Lake Whatcom Watershed Overlay District, where bed and breakfast establishments are a conditional use, per WCC 20.51.070.

.107 Vacation rental units, per WCC 20.80.960, except in the Lake Whatcom Watershed Overlay District, where vacation rental units are a conditional use, per WCC 20.51.070.

.....

CHAPTER 20.34 RURAL RESIDENTIAL - ISLAND (RR-I) DISTRICT

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20.34.100 Accessory uses.

.....

.107 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.35 ELIZA ISLAND (EI) DISTRICT

.....

20.35.100 Accessory uses.

.....

.108 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.36 RURAL (R) DISTRICT

.....

20.36.100 Accessory uses.

.....

.109 Bed and breakfast establishments, except in the Lake Whatcom Watershed Overlay District, where bed and breakfast establishments are a conditional use, per WCC 20.51.070.

.110 Vacation rental units, per WCC 20.80.960, except in the Lake Whatcom Watershed Overlay District, where vacation rental units are a conditional use, per WCC 20.51.070.

.....

CHAPTER 20.37 POINT ROBERTS TRANSITIONAL ZONE (TZ) DISTRICT

.....

20.37.100 Accessory uses.

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[.108 Vacation rental units, per WCC 20.80.960.](#)

.....

CHAPTER 20.40 AGRICULTURE (AG) DISTRICT

.....

20.40.100 Accessory uses.

.....

[.114 Vacation rental units, per WCC 20.80.960.](#)

.....

CHAPTER 20.42 RURAL FORESTRY (RF) DISTRICT

.....

20.42.150 Conditional uses.

.....

[.160 Vacation rental units, per WCC 20.80.960.](#)

.....

CHAPTER 20.51 LAKE WHATCOM WATERSHED OVERLAY DISTRICT

.....

20.51.060 Accessory uses.

All accessory uses in the underlying zone districts are permitted except as expressly prohibited or made conditional, or further conditioned by this chapter. (Ord. 2013-043 § 1 Exh. A, 2013).

20.51.070 Conditional uses.

All conditional uses in the underlying zone districts shall remain conditional uses unless expressly prohibited, made conditional, or further conditioned by this chapter. In addition, the following uses shall only be conditionally permitted:

.....

[.074 Bed and Breakfast Establishments and Inns.](#)

[.075 Vacation Rental Units, per WCC 20.80.960, with the following additional criteria in the Lake Whatcom Watershed Overlay District:](#)

- (1) In vacation rental units adjacent to the Lake Whatcom shoreline, the owner shall post notice to renters information about prevention of aquatic invasive species.
- (2) The owner of a vacation rental unit using an on-site septic system shall provide to the department a current satisfactory Report of System Status upon registration and shall provide updated reports every three years thereafter for conventional gravity systems or annually for all other systems.

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CHAPTER 20.59 RURAL GENERAL COMMERCIAL (RGC) DISTRICT

.....

20.59.100 Accessory uses.

.....

.108 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.61 SMALL TOWN COMMERCIAL (STC) DISTRICT

.....

20.61.100 Accessory uses.

.....

.111 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.62 GENERAL COMMERCIAL (GC) DISTRICT

.....

20.62.100 Accessory uses.

.....

.106 Vacation rental units, per WCC 20.80.960.

.....

CHAPTER 20.64 RESORT COMMERCIAL (RC) DISTRICT

.....

20.64.100 Accessory uses.

.....

.113 Vacation rental units, per WCC 20.80.960.

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CHAPTER 20.80 SUPPLEMENTARY REQUIREMENTS

.....

20.80.580 Parking space requirements.

For the purpose of this ordinance, the following parking space requirements shall apply (See also WCC [20.97.140](#)):

.....

(7.1) Bed and Breakfast Establishments and Inns: 1 for each rented sleeping unit in addition to the parking spaces required for the single-family dwelling.

.....

20.80.960 Vacation rental units

Vacation rental units are subject to all of the following standards:

- (1) Vacation rental units in the Lake Whatcom Watershed Overlay Zone are subject to a conditional use permit per WCC 20.51.070 and WCC 20.84. A conditional use permit may set standards that are more restrictive than the standards in this section.
- (2) There shall be no more than one vacation rental unit per lot.
- (3) To operate, Each vacation rental unit must be currently registered by the owner in the departmentCounty's Vacation Rental Registry, maintained by Planning and Development Services. Registration must be reapplied for annually, by the date of the owner's first registration. A registration fee may be collected by the department, as specified in the County's Unified Fee Schedule. The department may revoke registration of a vacation rental unit if the owner the department has been cited the owner for two or more code violations within a 12-month period. The department shall issue a registration number for each vacation rental unit and the owner shall include the registration number in all advertising for the unit. The registration shall apply to the owner and not run with the land. Information provided at the time of registration shall include, at a minimum:
 - (a) Name and telephone number of the owner or an authorized agent who is available on a 24-hour basis to resolve problems associated with the unit,
 - (b) A copy of the signage required to be posted on the front exterior of the unit giving the 24-hour contact information for the owner or authorized agent, and a description of the specific posting location by subsection (8).
 - (c) A checklist of safety features required by the Building Official and Fire Marshal that the owner certifies are present in the unit,
 - (d) A statement that by signing the registration/permit application the owner or agent authorizes departmentthe County staff to inspect the property, and agrees to engage in dispute resolution and act in good faith to resolve disputes with neighbors arising from the use of a dwelling as a vacation rental.
 - A copy of the notice posted inside the unit providing guests with 24-hour contact information, safety information and rules of conduct, and
 - (e) A copy of the current State of Washington business license, including the Unified Business Identifier (UBI) number.

- (4) The maximum number of persons permitted to stay in a vacation rental unit shall not exceed two per the number of legally permitted bedrooms being rented, plus two additional persons. The owner shall not advertise occupancy higher than the maximum number permitted by this subsection or by a conditional use permit, **whichever is the lesser.**
- (5) **Other than the contact information required to be posted by subsection (8)c, there shall be no outdoor signage or any other visible feature that would distinguish the unit from surrounding residential units.**
- (6) The vacation rental shall be operated in a way that will prevent unreasonable disturbances to nearby residents, per WCC Chapter 9.40.
- (7) Off-street parking shall be provided per WCC 20.80.580(50).
- (8) The owner of the vacation rental unit shall post notices to renters **in prominent places, to include:**
- a. The maximum number of guests, as calculated in subsection (4)**
 - b. ~~regarding Guest~~ rules of conduct and their responsibility not to trespass on private property or create disturbances.**
 - c. The name and telephone number of the owner or authorized agent who is available on a 24-hour basis to resolve problems associated with the unit (to be posted both inside, for the guests, and outside, near the primary entrance).**
 - d. A copy of the current State of Washington business license, including the Unified Business Identifier (UBI) number.**

.....

CHAPTER 20.97 DEFINITIONS

.....

20.97.027 Bed and breakfast establishment.

“Bed and breakfast establishment” means a privately owned dwelling that is the primary residence~~(s)~~ of the owners ~~s~~ and in which, for compensation, one to two rooms are used as sleeping units to house or lodge individuals or families for periods of less than ~~one month~~ 30 days as transient visitors with or without limited food service. The use of the dwelling unit for the bed and breakfast shall be clearly incidental and subordinate to its use for residential purposes and the purpose of the applicable zoning district. At least one owner shall be present overnight when a guest room is rented.

20.97.028 Bed and breakfast inn.

“Bed and breakfast inn” means a privately owned dwelling that is the primary residence(s) of the owners~~s~~ in which, for compensation, three to five rooms are used as sleeping units to house or lodge individuals or families for periods of less than ~~one month~~ 30 days as transient visitors with or without limited food service. The use of the dwelling unit for the bed and breakfast shall be clearly incidental and subordinate to its use for residential purposes and the purpose of the applicable zoning district. At least one owner shall be present overnight when a guest room is rented.

.....

20.97.445.1 Vacation Rental Unit.

"Vacation Rental Unit" means a single-family dwelling unit, detached accessory dwelling unit, or accessory apartment that, for compensation, is rented as a single unit used to lodge individuals or families for a period of less than 30 days and where the owner is not present in the rented unit during the rental period. Individual sleeping rooms shall not be rented individually.

DRAFT



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-651

File ID:	AB2021-651	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	AGeLeyns@co.whatcom.wa.us		
Department:	Health Department	File Type:	Presentation		
Assigned to:	Council Committee of the Whole				Final Action:
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: abeck@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Presentation from Health Department, Human Services Division staff to review interim shelter options over the winter season

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attachment

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Presentation



Memorandum

TO: SATPAL SIDHU, COUNTY EXECUTIVE

FROM: Ann Beck, Human Services Supervisor

DATE: 10/29/21

RE: Presentation from Human Services staff to review interim shelter options over the winter season.

Attached is a brief PowerPoint presentation reviewing interim shelter options available this winter.

- **Background and Purpose**

Whatcom County, in partnership with the City of Bellingham, is maximizing available resources and increasing emergency shelter bed capacity for the 2021-22 winter season. This presentation will highlight the work that has been done with community partners to provide additional shelter beds during the winter months. The successful development of additional resources has been accomplished despite ongoing workforce and disease prevention challenges arising from the COVID-19 pandemic and in a way that maintains a focus on permanent housing solutions in a rapidly escalating housing market. The presentation will share details about shelter options within the context of broader housing strategies.

Please call Ann Beck at 7088 if there are any questions. Thank you.



Winter Shelter Update

Ann Beck

11/9/2021

Whatcom County Council Committee of the Whole



A Whole Community Approach



Invest in long-term solutions

- Building more affordable housing
 - Health Department is hiring an Affordable Housing Program Specialist
 - New COVID-19 funding support
- Funding support services needed for success

Address housing needs as a health determinant

- Findings of COVID-19 Community Health Impact Assessment
- Housing cost increases and tight rental market

Focus of Our Planning



Build upon current resources

- Support those with experience to increase capacity

Prioritize the most vulnerable

- Increasing need
- Resource shortages

Building Capacity

- 30 new tiny homes
- 25 young adult beds with NWYS
- 10 beds for senior women at YWCA
- 240 beds at Basecamp and overflow
- Increased motel funding for families with children



Where to go?

- Base Camp for check in
- Community Resource Center at the Opportunity Council
- 360-788-7983 for open shelters



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-395

File ID:	AB2021-395	Version:	1	Status:	Agenda Ready
File Created:	07/01/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Discussion		
Assigned to:	Council Committee of the Whole			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: cstrong@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion and periodic update of the Shoreline Management Program

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

7.13.2021: Overview of the periodic update of Whatcom County's Shoreline Management Program (SMP), which includes amendments to the Whatcom County Comprehensive Plan (shoreline and other policies), WCC Titles 23 (shoreline regulations) and 22 (permitting procedures), WCC Chapter 16.16 (critical areas regulations), and the official Shoreline Map. Additionally, the project addresses Council's docketed items 1) PLN2019-00011, a directive to amend the Comp Plan and codes to allow the seasonal extraction of sand and gravel from dry upland areas under certain conditions (but has been found to be unnecessary); and 2) PLN2018-00010, the addition of a Sustainable Salmon Harvest Goal policy to the Comp Plan.

9.14.2021: Discussion of proposed Comp Plan policy amendments pertaining to the SMP Periodic Update and docket item #PLN2018-00010 regarding a Sustainable Salmon Harvest Goal policy.

9.28.2021: Discussion of proposed amendments to Title 22 (Land Use & Development, Exhibit E) and the Shoreline Management Program Map (Exhibit G).

10.12.2021: Discussion of proposed amendments to Title 23 (Shoreline Management Program)

10.26.2021: Discussion of proposed amendments to WCC Chapter 16.16 (Critical Areas)

11.9.2021: Discussion of No Net Loss, Restoration Plan, and Department of Ecology Required and Recommended Changes

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
07/13/2021	Council Committee of the Whole	DISCUSSED	
09/14/2021	Council Committee of the Whole	DISCUSSED	
09/28/2021	Council Committee of the Whole	DISCUSSED	
10/12/2021	Council Committee of the Whole	DISCUSSED	
10/26/2021	Council Committee of the Whole	DISCUSSED	

Attachments: Staff Memo for 11-9-21, Exhibit I - Whatcom Co SMP NNL Memo 2020-12-31, Exhibit J - Restoration Plan Addendum_Whatcom_2020-03-31, Exhibit K, Att. 1 - Required and Recommended Changes w WC responses.pdf



Memorandum

DATE: October 29, 2021
TO: The Honorable County Council
FROM: Cliff Strong, Senior Planner
THROUGH: Mark Personius, Director
RE: Continued Review of Shoreline Management Program (SMP) Periodic Update 2020

Today's Goals

On November 9th the Council's Committee of the Whole will continue its review of the SMP Update, focusing on No Net Loss, the Shoreline Restoration Plan Update, and on Department of Ecology required and recommended amendments to WCC Title 23 (SMP) and Chapter 16.16 (Critical Areas).

Attachments

- **Exhibit I** – SMP No Net Loss and Cumulative Impacts Summary Memo
- **Exhibit J** – Restoration Plan Addendum
- **Exhibit K** – Department of Ecology required and recommended amendments

All documents are available in pdf and Word versions on PDS's SMP Update webpage:
<https://www.whatcomcounty.us/3119/SMP-Update-2020-Documents>.

SMP No Net Loss Memo

On 9/10/2019, staff gave a presentation to Council's Natural Resources Committee on how No Net Loss is determined under the Shoreline Management Act. Following is a synopsis of that presentation.

What does No Net Loss Mean?

No net loss incorporates the following concepts:

- The existing condition of shoreline ecological functions should not deteriorate due to permitted development.
 - The existing condition or baseline is documented in the shoreline inventory and characterization, which was done for the 2007 Comprehensive SMP Update.
 - Shoreline functions may *improve* through shoreline restoration.
- New adverse impacts to the shoreline environment that result from planned development should be avoided. When this is not possible, impacts should be minimized through mitigation sequencing. However, mitigation for development projects alone cannot prevent all cumulative on-going impacts and shoreline violations, so restoration is also needed.
- No net loss should be achieved over time by establishing environment designations, implementing SMP policies and regulations that protect the shoreline, and restoring sections of the shoreline.

Nonetheless, based on past practices current science tells us that most, if not all, shoreline development produces some impact to ecological functions. However, the recognition that future development will occur is basic to the no net loss standard. The challenge is in maintaining shoreline ecological functions while allowing appropriate new development and ensuring adequate land for preferred shoreline uses

and public access. With due diligence, local governments can properly locate and design development projects and require conditions to avoid or minimize impacts.

SMP updates: Achieving no net loss of ecological function

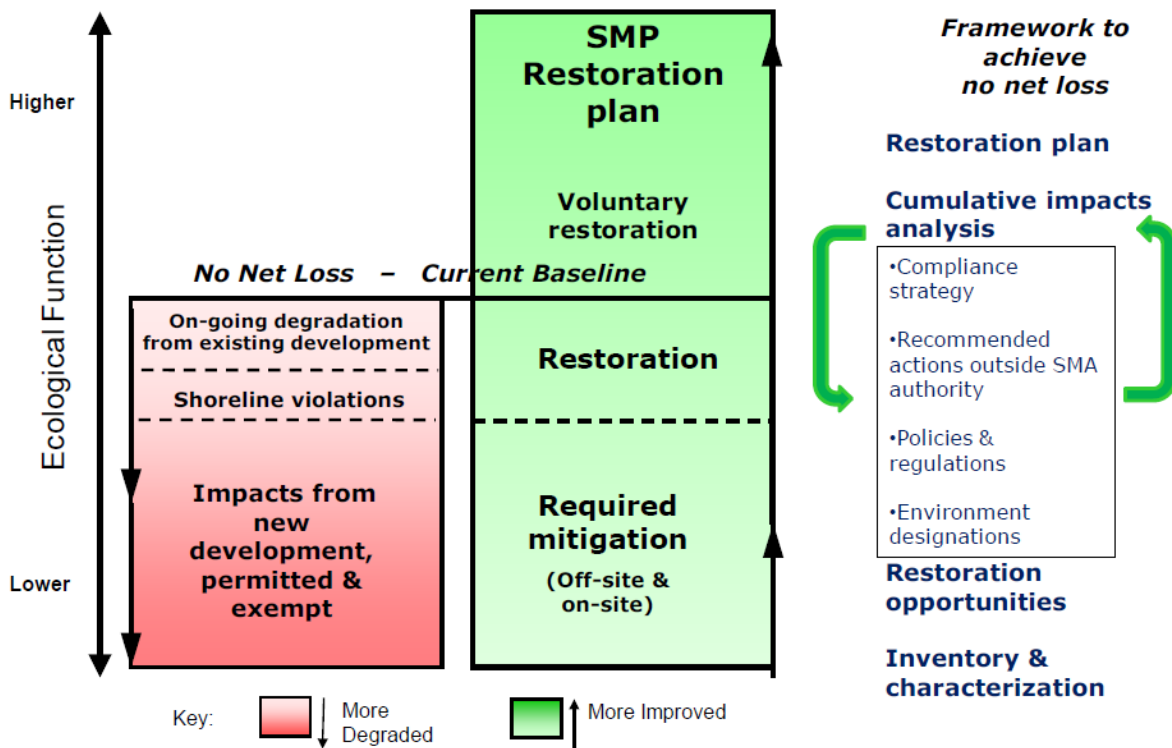


Figure 4-1: During the SMP update process, local governments should use existing shoreline conditions as the baseline for measuring no net loss of shoreline ecological functions.

Over time, the existing condition of shoreline ecological functions should remain the same as when the SMP was adopted in 2007. Simply stated, the no net loss standard is designed to halt the introduction of new impacts to shoreline ecological functions resulting from new development by requiring mitigation. However, over all, protection, restoration, and mitigation are needed to achieve no net loss. *Restoration is the only mechanism by which we can improve shoreline functions and ecosystem-wide processes over time.*

Local governments must achieve this standard through both the SMP planning process and by appropriately regulating individual developments as they are proposed in the future. Local governments show that their SMP will result in no net loss of ecological function by completing several tasks in the *comprehensive* SMP update process, including:

- Shoreline inventory and characterization (done in 2007 and no changes made in this current *periodic* update that warrant updating it)
- Shoreline use analysis (done in 2007 and no changes made in this current *periodic* update that warrant updating it)
- Shoreline management recommendations (done in 2007 and updated for this current *periodic* update)
- Restoration plan (done in 2007 and updated for this current *periodic* update)

- Cumulative impacts analysis (done in 2007 and updated for this current *periodic* update)
- No net loss summary (done in 2007 and updated for this current *periodic* update)

To approve our 2007 *comprehensive* SMP, Ecology's Director formally concluded that when implemented over its 20-year planning horizon it would result in "no net loss of ecological functions necessary to sustain shoreline natural resources."

How to Demonstrate No Net Loss in the Permit Process

During the planning process, incomplete information about a potential future development and its impacts limits our ability to address no net loss. To close this information gap, unanticipated development impacts are identified through more detailed, site-specific information received at the permit review level.

When implementing the SMP, mitigation sequence principles (first avoiding, then minimizing and compensating for ecological impacts) are applied as individual shoreline project applications are reviewed and approved, conditioned, or denied.

Project review completes the Guidelines' combined planning and permit review framework for achieving no net loss. It assures that unanticipated impacts will still be subject to a cumulative impacts evaluation as applications for shoreline exemptions, conditional uses, and shoreline permits are reviewed.

No Net Loss and Restoration

The concept of no net loss of shoreline ecological functions is rooted in the Act and in the goals, policies, and governing principles of the state's shoreline guidelines. These principles suggest that no net loss is achieved primarily through regulatory approaches and that restoration occurs mainly via goals, policies, and voluntary or incentive-based mechanisms.

It is also important to note that more than simply preventing further loss of ecological functions, master program provisions must also "...achieve overall improvements in shoreline ecological functions over time when compared to the status upon adoption of the master program." The mandate to improve functions over time provides the basis for restoration planning and creates a distinction between mitigation and restoration.

As mentioned, applicants for shoreline permits must fully mitigate new impacts caused by their proposed development. However, applicants are not required to restore past permitted ecosystem damages as a condition of permit approval. Nor are permit applicants required to implement the restoration measures identified in the plan as mitigation for project impacts. But they may elect to implement elements of this plan as mitigation for shoreline development if appropriate, and they may be required to mitigate for recurring impacts.

Ultimately, the County is responsible for ensuring no net loss through the permit review process, requiring mitigation for those developments, *but also by implementing the adopted Restoration Plan.*

NNL Monitoring

State guidance identifies 3 types of NNL monitoring:

- **Permit implementation monitoring** (done by local jurisdictions) – Determining whether the local government issued a permit consistent with the regulations; and whether the projects as built comply with all of the conditions noted in the permit.
- **Permit effectiveness monitoring** (done by local jurisdictions) – The same monitoring as above, but over a longer period of time. Can also address procedural improvements to improve

efficiency of the permit system. The data is not about the individual permit, but whether and how to adaptively manage the system.

- **Validation monitoring** (best done by regional entities) – Whether functions and values are being protected, and whether we are achieving no net loss of the ecosystem. This type of monitoring requires extensive scientific research that is probably beyond the resources of most local governments

PDS already:

- Tracks and monitors shoreline permits to ensure regulations are being implemented consistently and that direct impacts are avoided or mitigated (Permit Implementation).
- Requires cumulative impact analysis and mitigation sequence for all project permits.
- Monitors critical areas
- Works on continually improving our Permit Implementation monitoring, and
- Created standardized mitigation for single family residences and is working on standard mitigation measures for all development.
- Is developing a Permit Effectiveness Monitoring System in conjunction with implementing the our new permitting system

As mentioned, based on our regulatory approach and restoration plan, Ecology's Director formally concluded that our 2007 SMP will result in "no net loss of ecological functions necessary to sustain shoreline natural resources" over the 20-year planning horizon.

Nonetheless, as we're making some changes to our SMP we are required to update our 2007 No Net Loss and Cumulative Impacts summaries. This was one of the tasks we assigned to our consultant, The Watershed Company. You can find it in the record as Exhibit I.

Shoreline Management Program Restoration Plan Addendum

As mentioned in the previous section, achieving No Net Loss in the shoreline relies on having development projects mitigate for their impacts, but also on the County (and/or some of our partners) implement our SMP Restoration Plan. Our initial restoration plan was developed as part of the 2007 Comprehensive SMP Update (and can be found at <https://www.whatcomcounty.us/3119/SMP-Update-2020-Documents>).

As part of this periodic update, our consultant reviewed the restoration plan to determine which projects (if any) had been accomplished. Their work is shown in the Restoration Plan Addendum (Exhibit J). It lists all the projects in the Plan and provides a status update for each: 2 projects have been completed and 6 projects are in design, construction, or ongoing, though 20 have seen no change. The consultant also identified six additional projects that, while not in our original restoration plan, contribute to achieving No Net Loss (even though done not by the County but by our partner jurisdictions).

Council should remember that when contemplating funding new projects (e.g., Public Works construction projects), departments really should turn to this Restoration Plan as guidance as to what the Council has identified as important in achieving No Net Loss in our shoreline environment.

Department of Ecology Required and Recommended Amendments

Remember that the Department of Ecology has a role in approving this periodic update. Ultimately they have to approve it as being consistent with the Shoreline Management Act and their guidance, and certify that it will lead to no net loss of shoreline ecological functions. As part of their review and approval process they first make an initial determination and provide us with a list of required and recommended amendments. That list is attached and labeled for the record as Exhibit K.

Staff has reviewed this list and finds no problems with either their required or recommended amendments. None of them substantively change what we're trying to achieve or what the Planning Commission approved. Thus, we have updated the exhibits that represent Planning Commission's recommended amendments¹ by incorporating these changes into them. These new versions will be provided for introduction tonight and your public hearing.

Next Steps

Unless Council has anything else to discuss in workshop, staff suggests that we schedule your public hearing for November 23rd and "approval" for December 7th (these are your last two meetings of the year). We use the word "approval" here because unlike other regulations, Council must first approve them by resolution to be sent to the Department of Ecology for their final review and approval. Once we get Ecology's approval then staff will bring a final ordinance to Council for adoption sometime in early 2022.

¹ Provided to you on July 13th, 2021, and the same documents you've been reviewing

TECHNICAL MEMORANDUM



Date: December 31, 2020
To: Cliff Strong, Ryan Ericson
From: Dan Nickel, Mark Daniel, Devin Melville
Project Name: Whatcom County SMP

Subject: Whatcom County SMP Periodic Update - No Net Loss Statement

Introduction

Whatcom County (County) is conducting a periodic review of its Shoreline Master Program (SMP). While the majority of amendments are to comply with current State law and address recent legislative updates, to clarify prior interpretations, and reorganize the SMP to improve usability for both applicants and staff), several amendments are substantive in nature and merit additional documentation to ensure that implementation of the updated SMP and future development will not result in a net loss of shoreline ecological functions.

The Shoreline Management Act guidelines (Guidelines) require local shoreline master programs to regulate new development to “achieve no net loss of ecological function.” The County’s 2007 comprehensive SMP update was approved under this benchmark based on the analyses performed then¹. This memorandum builds on those analyses and addresses the amendments proposed for this year’s periodic review and specifically identifies amendments that are more substantive in nature.

The following areas of the SMP have amendments that warrant evaluation:

- Pier and dock standards
- Common line setback evaluation
- Trail location standards
- Nonconforming residential development
- Buffer reduction mechanisms
- Residential accessory structures

¹ See <https://www.whatcomcounty.us/3119/SMP-Update-2020-Documents>

The purpose of this memo is to describe these amendments and evaluate their potential effects on shoreline ecological functions to ensure the County will continue to meet the Washington State Department of Ecology no net loss criteria.

No Net Loss Evaluation

Pier and Dock Standards

Amendment Description: WCC 23.40.150(B) (Moorage Structures) (formerly titled Docks, Piers, and Mooring Buoys) contain revised dimensional standards, including overall square footage, for both freshwater and marine moorage (overwater) structures.

NNL Evaluation: The amended pier and dock standards in WCC 23.40.150(B), subsections 1 and 2, are extrapolated from the U.S. Army Corps of Engineers (Corps) Regional General Permit 6 and consistent with the Washington Department of Fish and Wildlife standards provided in the hydraulic code rules (WAC 220-660-140 and -380). These state and federal requirements contain provisions to allow overwater structures while ensuring implementation of impact reduction mechanisms to protect aquatic habitats. Furthermore, moorage structures are required to be constructed of materials that will not adversely affect water quality or aquatic plants or animals over the long term (WCC 23.40.150(C)).

While the proposed amendments to the Whatcom County SMP do not explicitly limit the number of future overwater structures, the proposed amendments minimize impacts by regulating overall footprint and dimensional standards, which are known to have a direct correlation to habitats and species. In general, the updated pier and dock standards allow for reduced square footage of overwater structures and a reduction in the total number of docks by prioritizing shared docks over single-user docks. The proposed amendments also avoid future impacts by prohibiting such moorage structures in key shoreline habitat areas (WCC 23.40.150(A)(6)).

Common-Line Setback

Amendment Description: To protect views of the shoreline from existing structures when new development is proposed, WCC 23.30.040 (Views and Aesthetics) of the updated SMP includes a new subsection (B) that now allows setbacks in Urban, Shoreline Residential and Rural environments to be modified pursuant to WCC 23.40.020(D) (Shoreline Bulk Provisions, Setbacks, Common-Line Setback for Single-Family Residences). That section (incorporated from former Appendix F, where it had only applied to nonconforming lots) allows for setbacks to be

reduced or increased, depending on how existing adjacent homes are situated, to provide the greatest view opportunities for both the existing and new development. Furthermore, WCC 23.30.040 (Views and Aesthetics) new subsection (L) precludes new uses or development from substantially obscuring shoreline views within shoreline view areas or from existing residences on adjacent property.

NNL Evaluation: When the use of a common-line setback is allowed, compliance with buffer width reduction and mitigation sequencing pursuant to WCC 23.30.010 (Ecological Protection) shall be required. WCC 23.30.010 (B) states that development, use, and activities within the shoreline jurisdiction shall avoid and minimize adverse impacts, and any unavoidable impacts shall be mitigated to meet no net loss of ecological function and ecosystem-wide processes pursuant to WAC 173-26-186, Governing Principles of the Guidelines. Furthermore, WCC 23.30.010 (C) has been added to specifically to add flexibility in buffer modification when approaches include “increased protection of shoreline ecological function and processes.” To minimize impacts to views from the water, a new subsection (C) was added to WCC 23.30.040 (Views and Aesthetics), that now allows the Director to require the planting of vegetation to mitigate the impacts.

Trail Location Standards

Amendment Description:

WCC 16.16.620 (Wetlands – Use and Modification), Subsection (H) (Recreation) has been amended to allow public trails to include viewing platforms to be closer than the outer 25% of the buffer “when necessary to provide wetland educational opportunities or for public health and safety,” and to be wider than the standard widths when necessary to meet ADA requirements. Corresponding amendments have also been made to WCC 16.16.720(G)(1) (Habitat Conservation Areas – Use and Modification).

NNL Evaluation: This allowance is permissible provided that all criteria in WCC 23.40.160(A)(6) (Recreation) are met; this amendment adopts by reference the requirements of WCC Chapter 16.16 (Critical Areas), which contains the standards for trails in critical areas. WCC 16.16.620(H) criteria for passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails, states the trail must minimize erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as wood recruitment and natural wildlife movement patterns. Such trails must be made of pervious material or elevated where feasible,

be designed to avoid removal of significant trees, and be constructed in a manner that minimizes disturbance of the buffer and associated critical areas.

Nonconforming Residential Development

Amendment Description: Standards for addressing the enlargement or expansion of single-family residences non-conforming to the shoreline buffer have been clarified in WCC 23.50.020 (Nonconforming Structures), subsection (F). Expansion of a nonconforming single-family structure may be approved when the expansion does not extend waterward of the existing primary structure's building footprint or the when the expansion is consistent with the constrained lot provisions in WCC 23.40.170.

NNL Evaluation: Approved expansion of single-family residences non-conforming to the shoreline buffer is not anticipated to have further impacts to the shoreline under the clarified standards provided in WCC 23.50.020 (F). Subsection (2) includes the following specific restrictions to ensure protection of existing ecological functions and mitigate for impacts. The expansion of nonconforming single-family residences or normal appurtenances greater than the constrained lot provisions of WCC 23.40.170 may be approved once during the life of the structure (100 years), with a total building footprint expansion of no more than 500 square feet. Additionally, the expansion must be landward or lateral of the existing footprint, shall occur on a previously impacted impervious surface, shall not occur waterward of the common line setback, and shall be accompanied by enhancement of an area equivalent to the expansion if the total building footprint increases by more than 250 square feet.

Buffer Reduction Mechanisms

Amendment Description: WCC 16.16.745 and 16.16.640 address buffer modifications within wetlands and habitat conservation areas, including buffer width averaging, buffer width reductions, and buffer width variances. Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. In such cases, the width of buffers may be averaged if it will improve the protection of functions and the applicant can demonstrate that all specified criteria are met. Buffer width reduction may be approved by the Director on a case-by-case basis, provided that the general standard for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied and the applicant demonstrates to the satisfaction of the Director that all of the specified criteria have been met. Standard buffer widths may be reduced more than 25% though a variance pursuant to WCC 16.16.273, provided that buffer averaging beyond the limits allowed by the variance is prohibited.

NNL Evaluation: The updated SMP adopts the CAO by reference, allowing for limited buffer reduction mechanisms provided specified criteria are met. For buffer averaging proposals, both WCC 16.16.745 (B)(2) and WCC 16.16.640 (B)(2) state the Director may require enhancement to the remaining buffer to ensure no net loss of ecological function, services, or value in the specified locations where a buffer has been reduced to achieve averaging. For buffer reduction proposals, both WCC 16.16.745 (C) and WCC 16.16.640 (C) allow the Director to require retention of existing native vegetation on other portions of the site to offset habitat loss from buffer reduction. Additionally, all buffer reduction impacts are required to be mitigated with the result being equal or greater protection of functions and values. In all circumstances where a substantial portion of the remaining buffer is degraded, buffer reduction plans shall include replanting with native vegetation in the degraded portions of the remaining buffer area to further ensure the no net loss standard is achieved.

Residential Accessory Structures

Amendment Description: WCC 16.16.720(G)(4), Accessory Uses, allows for water-oriented accessory structures associated with a residential use to be located in habitat conservation area buffers. Such structures would be limited in area to either 10 percent of the buffer area or 500 square feet, whichever is less. Additionally, no more than 20 percent of the linear length of shoreline could be occupied by such a structure. Per this section, such recreation-oriented applications would only be allowed when all reasonable measures have been taken to avoid adverse effects on species and habitats, including applying recommendations from the Washington Department of Fish and Wildlife, providing mitigation for all adverse impacts that cannot be avoided, and limiting the amount and degree of the alteration to the minimum needed to accomplish the project purpose. As required mitigation for the development, the shoreline must be planted with native vegetation extending at least 15 feet landward from the ordinary high water mark for at least 75 percent of the shoreline length.

NNL Evaluation: This allowance for small water-oriented residential accessory structures is intended to offer flexibility to waterfront landowners who would like to enhance their water enjoyment opportunities, typically for viewing or direct water access. To balance these direct impacts to HCA buffers, the County has proposed a planting requirement immediately adjacent to the shoreline. Native vegetation in these locations are known to provide a variety of positive ecological benefits including habitat, water quality, and vegetation functions. Assuming an average waterfront lot width of 100 feet, such a requirement would require a minimum planting area of 1,125 square feet (100 feet long x 15 feet wide x 0.75). This planting area represents over a 2:1 mitigation ratio to the maximum potential impact area of 500 square feet. Even a small lot width of 50 feet would result in approximately 562.5 square feet of native shoreline planting.

Implementation of this provision is expected to improve habitat, water quality, and vegetative conditions as vegetation matures over time.

Restoration Plan Implementation

The Shoreline Restoration Plan prepared as part of the Comprehensive SMP update in 2007 serves as a valuable resource for the County and its restoration partners to improve impaired ecological functions on the County's shorelines. The plan provides a framework for restoration on all County shorelines outside of incorporated areas.

The plan focuses on restoration projects that are reasonably likely to occur in the foreseeable future. This list has been updated during the periodic SMP update process². Potential restoration opportunities were identified based on recommendations in existing restoration planning documents, as well as input from County staff and restoration partners. The plan lists restoration and protection strategies, including opportunities for specific projects, for each of the County's watersheds.

The plan provides an implementation framework by identifying existing and ongoing plans and programs as well as potential restoration partners at the federal, state, regional, and local levels. The framework builds on local and regional planning coordination among these programs and partners, identifying mechanisms for implementation including development incentives for restoration; landowner outreach and engagement; maximizing mitigation outcomes; and monitoring the effectiveness of restoration actions.

Restoration projects which have been completed or are in progress since 2007 include:

- Removing groins and bulkheads along Birch Bay Drive (ongoing)
- Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Legoe Bay (ongoing)
- Lummi Island Quarry Restoration (ongoing)
- Bulkhead removal along Gooseberry Point (ongoing)
- Little Squalicum Creek mouth/estuary debris removal (ongoing)
- Debris removal and restoration of the armored shore at Mount Baker Plywood (ongoing)
- Point Roberts, Lighthouse Park structure removal (complete)
- Lummi View Drive Relocated (complete)

² Restoration Plan Addendum, March 31, 2020

- West Beach, Lummi Peninsula bulkhead removal (ongoing)

Cumulative Impacts

The Cumulative Impacts Analysis during the 2007 comprehensive SMP update evaluated the effects of foreseeable development under the SMP and demonstrated that the goals, policies, and regulations, combined with recommendations in the Shoreline Restoration Plan, would prevent degradation of ecological functions relative to baseline conditions.

The Cumulative Impacts Analysis determined that the proposed SMP provides a high level of protection to shoreline ecological functions. The report indicated that on its own, the proposed SMP, which includes the Shoreline Restoration Plan, is expected to protect and improve shorelines within Whatcom County while accommodating foreseeable future shoreline development, resulting in no net loss of shoreline ecological function.

Emphasis is placed on achieving no net loss of ecological function throughout the SMP, with all uses and modifications subject to general and/or specific standards addressing the preservation of water quality, water quantity, and habitat function in the shoreline, as well as basin-wide ecological processes. The following are some of the key features that protect and enhance shoreline ecological functions to ensure that the no net loss standard is met.

- Shoreline environment designations are assigned to shorelines to minimize use conflicts and designate appropriate areas for specific uses and modifications.
- The SMP contains general policies and regulations designed to provide the basis for achieving no net loss of shoreline ecological functions, such as mitigation sequencing, critical areas and flood hazard regulations, and vegetation conservation standards.
- The critical area protection standards ensure that vegetated buffers are retained on wetlands, fish and wildlife habitat conservation areas, and geologically hazardous areas.
- More shoreline uses and modifications are permitted in areas with higher levels of existing disturbance, and allowed uses and modifications are more limited in areas with lower levels of disturbance. Regulations prohibit uses that are incompatible with the existing land use and ecological conditions and emphasize appropriate location and design of various uses.
- The Shoreline Restoration Plan identifies a number of project-specific opportunities for restoration inside and outside of shoreline jurisdiction, and also identifies ongoing

county programs and activities, restoration partners, and recommended strategies and actions consistent with a variety of watershed-level planning efforts.

Conclusion

The proposed amendments to the SMP described above are not anticipated to have adverse effects on shoreline ecological functions at the planning level. Further, the updated SMP includes a variety of other amendments that are either insignificant when it comes to evaluating impacts to ecological functions or anticipated to strengthen the shoreline ecological protections provided by the SMP. Therefore, the proposed amendments to the SMP are not anticipated to result in a net loss of ecological functions when implemented in tandem with the Shoreline Restoration Plan. Monitoring key indicators is an effective way to ensure the standard of no net loss is being achieved. This can best be implemented by requiring the submission of short-term and long-term monitoring reports as part of permit approvals for development applications and maintaining consistency throughout the permitting process in evaluating mitigation sequencing. Additionally, ongoing efforts by state agencies to monitor land cover change detection, specifically work generated by the Washington Department of Fish and Wildlife, will continue to offer a valuable resource to ensure compliance with no net loss standards.

TECHNICAL MEMORANDUM



Date: March 31, 2020
To: Whatcom County
From: Dan Nickel, The Watershed Company
Jonathan Waggoner, Herrera Environmental
Project Name: Whatcom County SMP Periodic Update
Project Number: 181232

Subject: Whatcom County Shoreline Restoration Plan Addendum

The purpose of this memorandum is to update the previous Shoreline Restoration Plan adopted by Whatcom County in 2007. The Shoreline Restoration Plan is meant to help identify restoration or enhancement projects and areas of the shoreline for improvement. Generally, uses and developments within shorelines cannot always be fully mitigated, which may result in incremental and unavoidable degradation to the baseline conditions of the shoreline. The Restoration Plan aims to counter these incremental degradations by identifying areas and projects for enhancement and restoration which can improve degraded baseline conditions along the shoreline over time.

This addendum references projects listed in the Shoreline Restoration Plan containing enhancement and restoration project proposals and updates them based on information received by the County, agencies, tribes and stakeholder organizations (Table 1). New projects which have been completed or are planned for construction are included in Table 2.

Table 1. Project updates for restoration actions

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Drayton Harbor	The large platform and foundation could be removed to restore the beach and fringing marsh	No change		
Drayton Harbor	Remove bulkheads in two separate locations that protrude into the intertidal	No change		
Drayton Harbor	Remove dilapidated dock	No change		
Birch Bay	Birch Bay Drive & Pedestrian Facility Project – Remove groins and bulkheads along Birch Bay Drive to restore upper beach and backshore habitats	Under construction	Whatcom County	Phase I under construction. Completion expected in 2021. Will restore 7,500 linear feet of shoreline.

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Pt Whitehorn	Remove bulkheads along these bluffs, which are the sole sediment source for accretionary shoreforms and valuable habitat in Birch Bay and State Park reaches	No change		
Cherry Pt	Remove dumped debris from bluff face and beach	No change		
Conoco Phillips	Sediment would be excavated from landward of the berm and bypassed to the south side of the pier fill area in stages. This would free up impounded sediment to southern shores and create a saltmarsh or estuary in the backshore	No change		
Sandy Pt	Marsh Restoration – Reduce intertidal slope and impervious surfaces and create riparian buffer/dune habitat to aid with flood control issues in the basin. Portions of the undeveloped (filled) uplands could be restored to marsh	No change		
Lummi River Delta	Tidal Connectivity – Restoration opportunities include removing extensive dikes and tide gates across the Red River Delta to restore tidal inundation and greatly increase fish habitat	No change		
Lummi Island, Pt Migley	Remove Bulkheads – Bulkheads could be scaled back or moved landward where possible and picnic structures over what would be active beach should be removed	No change		
Lummi Island, Village Pt	Remove Structures – Remove relict structures in backshore/marsh environments with marsh restoration	No change		
Lummi Island, Village Pt	Remove pier, groin, debris – Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Legoe Bay would benefit the nearshore	In early design		Goal is to restore ~150 linear feet
Lummi Island, Village Pt	Remove derelict piles which are likely creosote	No change		
Lummi Island, Smugglers Cove	Lummi Island Quarry Restoration – The shore that is not in use could be restored through removal of fill and riparian restoration to resemble the rocky shore prior to mining operations	In early design	Northwest Straits Foundation	Goal is to restore ~600 linear feet
Eliza Island	Remove derelict piles which are likely creosote in two locations	No change		
Gooseberry Pt	Remove bulkheads	Ongoing	Lummi Tribe	Likely saving as mitigation – goal is to restore ~160 linear feet

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Gooseberry Pt	Remove bulkheads	No change		
Lummi Shore Rd	Beach monitoring – Conduct beach monitoring to ensure the beach nourishment is continued, as begun under the USACE-constructed revetment	Ongoing	Lummi Tribe	
Lummi Shore Rd	Remove derelict drift nets, debris, and other foreign material from the Lummi Shore Road beaches	No change		
Cliffside Community Beach	Remove abundant wood debris smothering nearshore sediments along the Cliffside community beach	Complete	WDOE	Study complete, removal not recommended
Squalicum Creek	Debris removal and exotic species removal and revegetation with native plants at Little Squalicum Creek mouth/estuary	Permits acquired	City of Bellingham	Funding sources still being sought
Mt Baker Plywood	Debris removal and restoration of the armored shore around the west side of the Mount Baker Plywood area would provide habitat improvements	Design in process	Port of Bellingham	Preliminary design near completion
Chuckanut Bay	Beach Nourishment	No change		
Pt Roberts, Boundary Bluff	Removal of rock bulkheads in the southern and central portion of the reach, where erosion does not appear to be substantial	No change		
Pt Roberts, Boundary Bluff	Remove abandoned pilings north of Lighthouse Park (including by the west end of Gulf Road)	No change		
Pt Roberts, Lighthouse Park	Remove the old telephone building and associated shore defense structures, this includes a soldier pile bulkhead and boulder and debris revetment	Complete	Whatcom County	250 linear feet restored
Pt Roberts, Lilly Pt	A row of houses/cabins with revetments cause bluff sediment impoundment; restore marine riparian vegetation	No change		
Pt Roberts, Lilly Pt	Remove old cannery – Old Cannery - Pilings, slag piles, and various debris such as concrete pieces could be cleaned up from the intertidal and backshore	No change		
Pt Roberts, Maple Beach	The Elm St outfall structure, short groin, and the old pilings could be at least partially removed to free up beach area and remove the foreign material	No change		

Table 2. Completed or planned projects not Included in the previous Shoreline Restoration Plan.

Project Location	Project Description	Status (2020)	Proponent	Notes
Lummi Peninsula	Lummi View Drive Relocated	Complete	Lummi Tribe	The southern end of Lummi View Drive was moved landward to avoid erosion
West Beach, Lummi Peninsula	Bulkhead Removal	In Process	Lummi Commercial Corp	2751 Haxton Way, Restoration design complete
Waypoint Park	Waypoint Park	Complete	City of Bellingham	New beach included in park
Boulevard Park Beach	Boulevard Park Beach	Complete	City of Bellingham	Phase 1 complete, phase 2 to be part of overwater walkway
Post Point Lagoon	Post Point Lagoon	Complete	City of Bellingham	Lagoon shoreline restoration
Chuckanut Bay Shorelands	Chuckanut Bay Shorelands	Complete	City of Bellingham	Beach restoration and fish passage improvements in Mud Bay

Attachment 1: Whatcom County – Initial Ecology Required and Recommended Changes

The changes in **red are required** for consistency with the SMA (RCW 90.58) and the SMP Guidelines (WAC 173-26, Part III). Changes in **blue are recommended** and consistent with SMA (RCW 90.58) policy and the SMP Guidelines (WAC 173-26, Part III). Note that all references to SMP Provisions are based on the proposed SMP numbering and naming conventions.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Rec-1	23.05.040.E.2.b	Conditions of approval for compliance with <u>this</u> Title shall be added to such permit. The conditions of approval shall be enforced with the provisions of this Title <u>Title</u> .23.10.160 Violations <u>Violations</u> , Enforcement and Penalties <u>Penalties</u> .	Recommended Change – Scrivener’s errors.	Done.
Req-1	23.05.065.A – Critical Areas	The Whatcom County critical areas regulations (CAO), WCC Chapter 16.16 (ordinance No. 2019-013 dated February 12, 2019), are hereby adopted in whole as a part of this program, except that the provisions of WCC 16.16.270 (Reasonable Use Exceptions), 16.16.275 (Nonconforming Uses, Structures, and Lots), and 16.16.285 (Penalties and Enforcement) <u>and as specifically excluded elsewhere within this Title</u> , shall not apply within shoreline jurisdiction. All references to the critical areas ordinance (CAO), WCC Chapter 16.16, are for this specific version.	Required Change – Whatcom County is concurrently updating its CAO regulations along with this Shoreline Master Program (SMP) amendment. The final adopting ordinance is required in the provision once known. The added language clarifies that this provision does not represent an exhaustive list of CAO provisions that do not apply within the context of the SMP. There are numerous other sections of the CAO that conflict with statutory and rule requirements related to shoreline permit processing such as 16.16.230 (Activities Allowed without Notification), 16.16.235 (Activities Allowed with Notification) and 16.16.275 (Variances). These sections contain language either requiring SMP review or excluding their applicability within shoreline jurisdiction.	Done.
Req-2	23.10.190.B – Amendments	All regulatory elements of this Program shall be considered a part of the County’s development regulations. Certain non-regulatory elements of this master program, including but not limited to the Shoreline Restoration Plan or administrative procedures (WCC Title 22), may be updated and amended at any time without requiring a formal master program amendment. <u>Future changes to WCC Title 22 shall remain consistent with the Shoreline Management Act and associated rules, specifically RCW 90.58.140, 90.58.143, 90.58.210, 90.58.220 and Chapter 173-27 WAC.</u>	Required Change – This change clarifies that while administrative provisions can be codified within a local ordinance separate from the SMP, such changes shall remain consistent with the Shoreline Management Act (SMA) and applicable rules (See SMP Guidelines at WAC 173-26-191(2)(a)(iii)(C).	Done.
Req-3	23.20.010.B – Shoreline Jurisdiction	The shoreline master program jurisdiction applies to all shorelines of the state and their associated shorelands. This includes: 4. Floodways and <u>the entire 100-year contiguous</u> floodplain areas landward two hundred feet from such floodways ; and 9. Associated palustrine wetlands that extend greater than two hundred feet landward of the OHWM of the shoreline: the jurisdictional boundary shall extend to the OHWM <u>delineated edge</u> of the wetland.	Required Change – Whatcom County has removed the previously adopted “geomorphic floodplain” on the Official Shoreline Map to determine jurisdiction for the Nooksack and Sumas Rivers and has elected to set its jurisdiction as the extent of the 100-year floodplain recently remapped by FEMA. This change is necessary for consistency with the map change. Required Change – Shoreline associated wetlands are not limited to palustrine wetlands for the purposes of determining shoreline jurisdiction. Also, the latera extent of wetlands is not always consistent with the OHWM of the primary waterbody. As such, these changes are necessary for consistency with the definition of “Shorelands” found in RCW 90.58.030(2)(f).	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Req-4	23.20.020.H – Official Shoreline Map	All shorelines east of the Mount Baker National Forest western boundary are designated natural or conservancy unless there are federal projects on federal lands.	Required Change – This change restores existing language and The Official Shoreline Map does not include the eastern portions of the county, and thus a Conservancy designation would be assigned as a default pursuant to the SMP Guidelines at WAC 173-26-211(2)(e).	Done.
Req-5	23.20.020.I – Official Shoreline Map	All areas within shorelines that are not mapped and/or designated and are not directly adjacent to other shoreline designated areas are automatically assigned a conservancy designation. Within urban growth areas, such shorelines shall be automatically assigned an urban conservancy designation until such time that the shoreline environment can be re-designated through a formal amendment.	Required Change – This change restores existing language by removing a proviso that is not applicable to unmapped and/or designated shorelines per WAC 173-26-211(2)(e).	Done.
Req-6	Official Shoreline Map	Note on jurisdiction no longer accurate		Done. Changed to language of 23.20.020(B) and added “floodplain” to both.
Req-7	23.20.040.2 – Mapping Errors	In the event that a jurisdictional area, including associated wetlands, is not mapped, it will automatically be assigned a “resource,” “conservancy,” or “urban conservancy” designation depending on its location. If outside a UGA and adjacent to an existing “resource” designation, it shall be “resource,” if adjacent to “conservancy,” it shall be “conservancy. If inside of a UGA or LAMIRD is shall be “urban conservancy.” Such designation will apply until a master program amendment is approved that assigns the appropriate designation to the subject area.	Required Change – The SMP Guidelines require that unmapped and/or undesignated shorelines automatically be assigned a Conservancy or Urban Conservancy environment designation until a subsequent SMP amendment can be approved (WAC 173-26-211(2)(e). This is already covered by the SMP at WCC 23.20.020.I. In situations where the lateral extent of shoreline jurisdiction is not depicted on The Official Shoreline Map, the environment designation of the adjacent mapped portions of the shoreline would extend to the outward edge of shoreline jurisdiction as determined on a case-by-case basis per WCC 23.20.020.B. For example, the map assigns a Conservancy designation to a particular reach of river but does not illustrate associated wetlands on the property. The Conservancy designation would apply to the delineated wetland edge beyond the area illustrated on the map.	Done.
Rec-2	23.30.010 – Ecological Protection	Ecological protection of shoreline environments shall be achieved through compliance <u>with the applicable provisions of</u> WCC Chapter 16.16 (Critical Areas) and (B) and (C) of this subsection	Recommended Change – This change clarifies that that not all of WCC 16.16 is applicable within the SMP.	Done.
Req-8	23.30.010.C – Ecological Protection	To provide for flexibility in the administration of the ecological protection provisions of this program, buffer modification and alternative mitigation approaches as provided for in WCC 16.16 may be approved within shorelines where such approaches provide increased protection of shoreline ecological functions and processes over the standard provisions of this program and are scientifically supported. <u>Use of 16.16.261 (Alternative Mitigation Plans) and 16.16.262 (Watershed-Based Management Plans) within shoreline jurisdiction shall require review of a Conditional Use Permit.</u>	Required Change – This change maintains the existing requirement for a CUP for use of select alternative mitigation approaches outlined within the CAO. This change is necessary due to the fact that the impacts from such future proposals using these provisions cannot be reasonably identified at the time of the amendment consistent with the SMP Guidelines at 173-26-201(3)(d)(i)(E)(iii). The CUP requirement maintains the flexibility sought by the proposed language without prohibiting the use of these CAO provisions.	Done.
Rec-3	23.30.030.B – Views and Aesthetics	To protect views of the shoreline from existing structures, setbacks may be modified pursuant to WCC 23.40 <u>9</u> .020(D) (Shoreline Bulk Provisions, Setbacks).	Recommended Change – Scrivener’s error at code citation.	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Rec-4	23.30.030.I – Views and Aesthetics	Fences, walls other than retaining walls , hedges, and other similar accessory structures, excluding those associated with agricultural uses, <u>and retaining walls necessary to protect existing primary structures from erosion, landslides or other geologic hazards</u> , shall be limited to four feet in height between the ordinary high water mark and structures, and within shoreline view areas as defined in WCC Chapter 23.60 (Definitions); provided, that, within shoreline view areas, the Director may approve a greater height where a fence or other features is parallel to the right-of-way and does not extend above a line of sight between the ordinary high water mark and a point three and one half feet above the centerline of the road.	Recommended Change – This change clarifies the intent of Whatcom County Planning & Development Services Staff in Scoping Document Item 17e to allow for increased walls in situations where structural mitigation in the form of a retaining wall is the appropriate solution to stabilize an existing primary structure subject to unforeseen hazards. The language as amended provides no context and is vague as to what the difference is between a retaining wall and a wall.	Done.
Rec-5	23.30.40.2 – Vegetation Management	Vegetation management within the shoreline buffer shall adhere to the <u>applicable</u> regulations of WCC Chapter 16.16.(Critical Areas)...	Recommended Change – This change clarifies that that not all of WCC 16.16 is applicable within the SMP.	Done
Rec-6	23.30.040.2 – Vegetation Management	Shoreline development shall conform to natural contours and minimize disturbance to soils and native vegetation as feasible. Feasible shall include incorporation of trails or stairs from parking areas on steep slopes, and other design elements to lessen the need to alter natural contours and minimize soils and native vegetation disturbance. Tiered Foundations shall <u>be tiered</u> incorporate with earth retention <u>incorporated</u> into the structural design.	Recommended Change – This change maintains the existing requirement that tiered foundations be utilized to meet the objectives of this provision.	Done.
Req-9	23.30.060.A.2 – Public Access	The parcel is separated from the water by an existing developed road or an additional parcel that serves to create a distinct break in connectivity to the shoreline.	Required Change – This change deletes this new exception to consideration of public access as it is overly prescriptive and inconsistent with the SMP Guidelines at WAC 173-26-221(4). Direct connectivity is not a requirement to accomplish proportionate public access. Public access includes the ability of the general public to reach, touch and enjoy the water's edge, travel on the waters of the state, <u>and to view the water from adjacent locations [WAC 173-26-211(4)(a)]</u> . Visual access to the shoreline is not necessarily precluded due to the presence of a developed road or additional parcel between the subject development and the shoreline.	Done.
Req-10	23.30.060.A.3 – Public Access	Other reasonable and safe opportunities for public access to the shoreline are located within one quarter mile of the proposed development site.	Required Change – This change deletes this new exception to consideration of public access as it is inconsistent with the SMP Guidelines at WAC 173-26-221(4). Increased development within shoreline areas can provide a nexus for the need for increased locations and forms of public access proportionate to such impacts.	Done.
Req-11	23.60.060.A.4 – Public Access	<u>The proposed development has already been considered as</u> site is part of a larger development project that has previously provided public access as part of the development permitting process.	Required Change – This change is necessary to ensure consistency with the SMP Guidelines at WAC 173-26-221(4) and clarifies the applicability of this exemption only if it had previously been analyzed through a broader development review such as a Planned Unit Development or other similar process.	Done.
Req-12	23.30.060.A.9 – Public Access	The proposal consists solely of a new or expanded utility crossing through shoreline jurisdiction serving development located outside shoreline jurisdiction, <u>provided that no adverse impacts to existing public access result.</u>	Required Change – Utility development is not specifically exempted from the requirement to consider public access in the SMP Guidelines. The proposed change modifies this new exemption to require public access considerations if impacts to existing forms of public access provide such a nexus.	Done.

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Req-13	23.30.060.A – Public Access	<p><u>Prior to deciding public access is not required pursuant to 23.60.060.A.above, the county must determine that all reasonable alternatives have been exhausted; including but not limited to:</u></p> <ol style="list-style-type: none"> <u>1. Regulating access by such means as maintaining a gate and/or limiting hours of use;</u> <u>2. Designing separation of uses and activities (e.g., fences, terracing, use of one way glazing, hedges, landscaping, etc.); and</u> <u>3. Providing for access at a site geographically separated from the proposal such as a street end, vista, tideland or trail system.</u> 	Required Change – This additional language added to the end of 23.60.060.A restores existing language proposed for deletion. The change is necessary for consistency with the SMP Guidelines at 173-26-221(4)(d)(B) which requires consideration of alternative methods of providing access when potential conflicts are identified with traditional forms of access.	Done.
Req-14	23.30.060 – Public Access	<p><u>I. Public access shall incorporate the following location and design criteria:</u></p> <ol style="list-style-type: none"> <u>1. Where open space is provided along the shoreline, and public access can be provided in a manner that will not adversely impact shoreline ecological functions and/or processes, a public pedestrian access walkway parallel to the ordinary high water mark of the property is preferred. The walkway shall be buffered from sensitive ecological features and provide limited and controlled access to sensitive features and the water's edge where appropriate. Fencing may be provided to control damage to plants and other sensitive ecological features and where appropriate. Trails shall be constructed of permeable materials and limited to five feet in width to reduce impacts to ecologically sensitive resources.</u> <u>2. Public access shall be located adjacent to other public areas, accesses and connecting trails, connected to the nearest public street; and include provisions for differently-abled persons where feasible.</u> <u>3. Where views of the water or shoreline are available and physical access to the water's edge is not present or appropriate, a public viewing area shall be provided.</u> <u>4. Design shall minimize intrusions on privacy by avoiding locations adjacent to windows and/or outdoor private open spaces or by screening or other separation techniques.</u> <u>5. Design shall provide for the safety of users, including the control of offensive conduct through public visibility of the public access area, or through provisions for oversight. The administrator may authorize a public access to be temporarily closed in order to develop a program to address offensive conduct. If offensive conduct cannot be reasonably controlled, alternative facilities may be approved through a permit revision.</u> <u>6. Public amenities appropriate to the use of a public access area such as benches, picnic tables and sufficient public parking to serve the users shall be provided.</u> 	Required Change – This change restores existing standards necessary for meaningful implementation of the public access requirements as required by the SMP Guidelines at WAC 173-26-222(4)(d)(iii).	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
		<p>7. <u>Commercial developments that attract a substantial number of persons and developments by government/public entities may be required to provide public restrooms, facilities for disposal of animal waste and other appropriate public facilities.</u></p> <p>8. <u>The minimum width of public access easements shall be 10 feet, unless the administrator determines that undue hardship would result. In such cases, easement widths may be reduced only to the extent necessary to relieve the hardship.</u></p> <p>9. <u>The requirement for public access on a specific site may be fulfilled by:</u> a. <u>Participation in a public access plan incorporated in the program; or</u> b. <u>Provision of facilities specified in a permit approval.</u></p> <p>10. <u>Required public access sites shall be fully developed and available for public use at the time of occupancy of the use or activity or in accordance with other provisions for guaranteeing installation through a monetary performance assurance.</u></p> <p>11. <u>Public access facilities shall be maintained over the life of the use or development. Future actions by successors in interest or other parties shall not diminish the usefulness or value of required public access areas and associated improvements.</u></p> <p>12. <u>Public access provisions shall run with the land and be recorded via a legal instrument such as an easement, or as a dedication on the face of a plat or short plat. Such legal instruments shall be recorded with the county auditor's office prior to the time of building permit approval, occupancy or plat recordation, whichever comes first.</u></p> <p>13. <u>Maintenance of the public access facility shall be the responsibility of the owner unless otherwise accepted by a public or nonprofit agency through a formal agreement recorded with the county auditor's office.</u></p> <p>14. <u>Public access facilities shall be available to the public 24 hours per day unless specific exceptions are granted though the shoreline permit process subject to the provisions of subsection (B)(1) of this section.</u></p> <p>15. <u>The standard state-approved logo or other approved signs that indicate the public's right of access and hours of access shall be installed and maintained by the owner. Such signs shall be posted in conspicuous locations at public access sites.</u></p> <p>16. <u>Incentives for public access improvements such as density or bulk and dimensional bonuses shall be considered through applicable provisions of zoning and subdivision regulations.</u></p>		
Rec-7	Table 1 – Shoreline Use by Environment	Add the following general footnote: <u>In the event that there is a conflict between the use(s) identified in Table 1 above and the applicable written policies or</u>	Recommended Change – This change restores an existing footnote that prescribes a solution when the table conflicts with the written text. Due to the	Not done. This language is already

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	Designation	<u>regulations of this Program, the text within the policies and regulations shall prevail.</u>	difficulty in capturing all of the detail of regulatory text within a matrix such as Table 1, the footnote provides clarity in the event a conflict is identified during implementation.	included in 2.40.010(B).
Rec-8	23.40.020.D.2 – Common Line Setback for Single-Family Residences	Common-Line Setback for Single-Family Residences. For the purpose of accommodating views <u>to be adequate and similar, but not necessarily equivalent,</u> for new residences while protecting predominant shoreline views of the water from legally existing primary residences in developed residential areas, the shoreline buffer (setback) may be modified for primary residential structures in the Urban, Shoreline Residential, and Rural environments (only), consistent with the following. The presence of nearby shacks, sheds, or dilapidated structures does not constitute the existence of a residence, nor can such structures be used to determine a common-line setback.	Recommended Change – This change restores existing language that clarifies that the common-line setback provisions do not guarantee the exact same view as existing residences adjacent to a development site. This is reflected in the standards that follow at 23.40.020.2.a through 23.40.020.2.d that limit reductions in this scenario to 25% of the standard buffers per WCC 16.16 or 50-feet from the OHWM, whichever is greater.	Done.
Req-15	23.40.020.D.2.a – Common Line Setback for Single-Family Residences	<p>a. Where there are legally established single-family residential primary structures within ±50 feet on both sides of the proposed residence, the setback shall be determined as the greater of either:</p> <ol style="list-style-type: none"> A common line drawn between the nearest corners of the foundation closest to the sideyard property line of the proposed residence to each adjacent residence, or A common line calculated by the average of both adjacent residences' existing setbacks. <p>b. Where there is a legally established single family residential primary structure within ±50 feet only one of the proposed residence, the common line setback shall be determined as the greater of either:</p> <ol style="list-style-type: none"> A common line drawn between the nearest corner of the foundation closest to the sideyard property line of the proposed residence to the adjacent residence and the nearest point of the standard buffer on the adjacent vacant lot, or A common line calculated by the average of the adjacent residence's setback and the standard buffer for the adjacent vacant lot. 	Required Change – This change restores the existing language to apply the common-line setback provisions only to existing structures within 50-feet of a proposed residence. The amendment record contains no justification to extend this distance to 150-feet, which is most cases is two to three times the width of most existing lots where view these provisions would apply. The No Net Loss analysis related to this change does not take into consideration the increase in applicability if these setback reductions county-wide by increasing the distance from 50-feet to 100-feet.	Done.
Req-16	23.40.020.D.2.d – Common Line Setback for Single-Family Residences	In no case shall development be located waterward of the common line setback or a minimum of 50 feet from the ordinary high water mark, unless approved to be closer as part of a constrained lot review WCC 23.40.170(c) (Residential)	<p>Required Change – This change clarifies the appropriate point of measurement of buffers/setbacks under the SMA which is ordinary high water mark.</p> <p>Required Change – This change is necessary for consistency with the referenced constrained lot provisions found at WCC 23.40.170.c.4. This section states that consideration shall be given to view impacts in accordance with the common-line setback standards of 23.40.020.d.2. The change eliminates an endless loop to where the two provisions continue to refer to one another without resolve, and clarifies that new residential development should not be allowed waterward of existing development through either process.</p>	Done.

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Req-	23.40.020.D.2 – Common Line Setback for Single-Family Residences	<u>e. The lot is not subject to landslide hazard areas, or riverine or coastal erosion hazard areas or associated buffers (see WCC 16.16.310).</u>		Required Change – This change adds the same standard found in the constrained lot provisions at 23.40.170.B.5. In no case should the common line setback be used that would place a single-family residence within a hazardous area.	Done.
Rec-9	23.40.020.G – Uses Allowed in Buffers and Setbacks	9. Where permitted, fences, walls other than retaining walls <u>those allowed by 23.70.020.G.8 above</u> , hedges and other similar structures shall be limited to four feet in height within shoreline setbacks and six feet in height outside of shoreline setbacks; provided, that the Director may exempt security fencing from this requirement as required by federal or state regulations.		Recommended Change – This change clarifies the difference between a wall and a retaining wall that may exceed this height limitation. See also Rec 4	Done.
Rec-10	23.40-020.G – Uses Allowed in Buffers and Setbacks	12. Accessory structures as allowed by 16.16.720(G)(4) Habitat Conservation Areas – Use and Modification		Recommended Change – Consider copying or moving 16.16.720.G.4, as amended in Req 27, to this location for clarity as the provision only applies within shoreline jurisdiction.	Done.
Rec-11	23.40.030 – General Shoreline Use and Modification Regulations	G. Accessory uses/ <u>structures</u> that do not require a shoreline location shall be sited away from the land/water interface and not placed waterward of the principal use <u>unless otherwise allowed by this Program</u> .		Recommended Change – See Rec X . Recommended Change – The added language clarifies that there are exceptions to this general regulation (See 16.16.720.G.4 as modified in Req-27).	Done.
Req-17	23.40.100.A.5 Flood Hazard Reduction and Instream Structures	Structural flood hazard reduction works shall be permitted only when it is demonstrated by engineering and scientific evaluations that: a. They are necessary to protect health/safety and/or existing development; b. Nonstructural flood hazard reduction measures are infeasible; and c. Measures are consistent with an adopted comprehensive flood hazard management plan that evaluates cumulative impacts to the watershed system or otherwise approved by Whatcom County Public Works' River and Flood Division.		Required Change – There is nothing within the SMP Flood Hazard Reduction Guidelines (WAC 173-26 221(3)) that allow a local government entity to override when new structural flood hazard reduction measures should be allowed within shoreline jurisdiction.	Done.
Req-18	23.40.100.A.12 – Flood Hazard Reduction and Instream Structures	Flood hazard reduction works should <u>shall</u> provide access to public shorelines whenever possible, unless it is demonstrated that public access would cause unavoidable public health and safety hazards, security problems, unmitigatable ecological impacts, unavoidable conflicts with proposed uses, or unreasonable cost. At a minimum, flood hazard reduction works should not decrease public access or use potential of shorelines.		Required Change – The consideration for public access associated with new flood hazard reduction measures is a requirement of the SMP Guidelines at WAC 173-26-221(3)(c)(iv).	Done
Rec-12	23.40.150.B.1 – Dimensional Standards for Freshwater	Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of <u>5.5</u> feet measured below the ordinary high water mark, an additional 4 sq. ft. of area may be added for each additional foot of pier or dock length needed to reach <u>5.5</u> feet of water depth at the waterward end of the pier or dock; provided, that all other area dimensions, such as maximum width and length, have been minimized		Recommended Change – This change makes this provision consistent with the maximum length standards listed later within this same table at 5.5 feet. The change is consistent with other changes the county made to this section based on comments received by Bill Haynes of Ashton Engineering on April 22, 2021.	Done.
Req-19	23.40.150.B.2 – Dimensional Standards for Marine Waters	<u>Maximum Width</u>	<ul style="list-style-type: none"> For moorage structures accessory to a residential use 4 feet for a single use or 6 feet for a joint use for pier or dock walkway or ramp For a joint use structure – 8 feet 	Required Change – This change removes the ambiguous reference to an 8-foot maximum associated with joint use structures. After consultation with Whatcom County PDS staff, these changes clarify the original intent that the 8-foot width maximum applied to joint-use residential moorage structures. Staff also	Done.

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				suggested limiting the maximum width of such structures to 6-feet.	
Rec-13	23.40.150.B.1 – Dimensional Standards for Freshwater	Maximum Length <ul style="list-style-type: none"> Marine Rails Floats 	<ul style="list-style-type: none"> 20 feet <u>waterward from the ordinary high water mark</u> 20 feet for float decking per user (e.g. single user – 20 feet, 2-users – 40 feet, etc.) 	<p>Recommended Change – This change clarifies that the 20 foot maximum length requirement for rail systems is measured waterward of the ordinary high water mark and not landward.</p> <p>Recommended Change – This change would provide flexibility for maximum float length for Joint-use docks which are preferred over single-user docks within the SMP. The changes are consistent with the proposed float length maximums for marine joint-use docks found in 23.40.150.B.2.</p>	Done.
Rec-14	23.40.150.D.4 – Additional Standards for Individual Moorage	b. Alternative moorage, such as mooring buoys or a dock <u>or marine rail</u> sized to accommodate a tender to provide access in conjunction with a mooring buoy, are not adequate or feasible; and		Recommended Change – Now that the SMP allows small marine rail systems, they should be considered for tender moorage accessory to a mooring buoy prior to permitting a new dock.	Done.
Rec-15	23.40.150.E.2 – Additional Standards for Shared Moorage	e. On marine shorelines a dock or pier may be approved only if it is not feasible to provide mooring buoys with an adequate landing area or a dock <u>or marine rail system</u> sized to accommodate tenders.		Recommended Change – Now that the SMP allows small marine rail systems, they should be considered for tender moorage accessory to a mooring buoy prior to permitting a new dock.	Done.
Rec-16	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	3. The building area shall not exceed 2,500 square feet. The building area means <u>the proposed residence, normal appurtenances (except drainfields), and any proposed residential accessory structures.</u> Sidewalks and similar structures (except the single path allowed for shoreline access, parking areas, normal appurtenances (except drainfields). Additionally, another 500 square feet of low-impact development (LID) landscaping, including any lawn, turf, ornamental vegetation, or gardens is allowed, provided that it is set back as far as feasible from the shoreline.		Recommended Change – This change clarifies that the house itself is also part of what constitutes the building area. Other changes simplify this provision without changing its meaning. A single footpath to access the shoreline is already allowed within buffers elsewhere within the SMP.	Done.
Rec-17	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	4. Consideration shall be given to view impacts in accordance with <u>In no case shall the proposed residence be located waterward of the common-line setback as determined in applicable sections of</u> WCC 23.40.020(D)(2) (Common-Line Setback).		Recommended Change – This change clarifies that the intent of this provision is to protect views from existing adjacent residences.	Done.
Rec-18	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	7. Appropriate measures are taken to mitigate all adverse impacts, including but not limited to locating the residence <u>building area and landscaping allowance</u> in the least environmentally damaging location relative to the shoreline and any critical areas and their buffers.		Recommended Change – This change clarifies that the entire 2,500 square foot building area and the additional 500-square foot allowance for lawn/landscaping is required to locate in the least environmentally damaging location.	Done.
Rec-19	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	8. All reductions to side yard and/or frontage setbacks are pursued, <u>Such reductions may be approved administratively without a zoning variance,</u> when doing so will not create a hazardous condition or a condition that is inconsistent with this program and WCC Title 20.		Recommended Change – Without the proposed change, every application to use the constrained lot provisions will require a concurrent application for a variance to WCC Title 20 – Zoning. For many years, the Zoning Ordinance contained a “shoreline flip” provision that allowed for administrative reduction of the roadside setback down to five-feet when it was determined by Whatcom County Public Works that such a distance met applicable development standards for site distance, etc. This change would restore this administrative option and result in	Done.

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			more expeditious review of new residential development in this scenario.	
Req-20	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	10. The shoreline jurisdiction shoreline area outside of the approved development is <u>retained if fully functional, and/or enhanced with native trees, shrubs and groundcovers through development of a mitigation plan, including monitoring and maintenance contingencies per 16.16.260.G.</u> optimized to provide the maximum shoreline ecological functions and ecosystem wide functions;	Required Change – It is unclear what the term “optimized” means but this change restores the exiting requirement that the remaining buffer areas are enhanced with trees, shrubs and groundcovers and maintained in perpetuity.	Done.
Req-21	23.40.170.C – Additional Standards for Multifamily Residential Development	3. Multifamily development with more than four units and shall incorporate public access to waters of the state as provided for in WCC 23.30.070 (Public Access) unless the site is designated in a shoreline public access plan for a greater component of public access or public access is demonstrated to be infeasible or inappropriate. The amount and configuration of public access shall depend on the proposed use(s) and the following criteria:	Required Change – This change restores the existing language that requires consideration for all multifamily development. There is nothing in the public access standards of the SMP Guidelines that exempt multifamily developments under a certain unit size [WAC 173-26-221(4)]	Done.
Rec-20	23.40.170.D – Additional Standards for Accessory Uses and Development	<u>Restore the following language:</u> 2. Shoreline permits shall be required for accessory development that does not meet the intent and definition of an appurtenance as defined in WCC 23.100.010(16).	Recommended Change – This change would restore an existing clarification that comes up often in SMP implementation that explains the difference between a residential appurtenance which can be exempt from the requirement to obtain a shoreline substantial development permit and a residential accessory structure that may require a substantial development permit.	Done.
Req-22 Rec-21	23.40.190.A – Shoreline Stabilization	5. Alternatives for shoreline stabilization shall be based on the following order of preference: a. No action, increase building setbacks, relocate structures; b. Nonstructural shoreline stabilization <u>stabilization, including building setbacks, relocation of structures to be protected and groundwater management;</u> c. Other Soft shoreline stabilization treatment; d. Hybrid shoreline stabilization; e. Hard shoreline stabilization.	Required Change – This change clarifies that increased setbacks are a form of nonstructural shoreline stabilization. In addition, the change restores existing language that requires consideration of structure relocation when feasible to avoid the need for stabilization and lists additional forms of nonstructural stabilization measures per the SMP Guidelines at WAC 173-26-231(3)(a). Recommended Change – Scrivener’s error (spelling).	Done.
Rec-22	23.40.190 – Shoreline Stabilization	12. Revetments are prohibited, except for use in water dependent and public infrastructure projects, which may be permitted as <u>a</u> conditional use.	Recommended Change – It is unclear why a revetment would be a prohibited form of shoreline stabilization when determined to be the least damaging and most appropriate choice for protection of primary structures. This change retains the conditional use requirement which will bring added scrutiny to these types of proposals to determine whether a revetment treatment is appropriate.	Not done. Should not normally be allowed.
Rec-23	23.40.190 – Shoreline Stabilization	15. Minimize disturbance pertaining to beach access by avoiding trails <u>that may be subject to loss or damage by erosion</u> require hard stabilization.	Recommended Change – This change clarifies that trails are not primary structures allowed to be protected with hard stabilization per the SMP. The provision has been reworded to leave the intent while removing language that could be perceived as allowing hard stabilization to protect accessory developments/structures.	Done.

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Rec-24	23.60.030 – “C” Definitions	Restore the following condition of “Clearing”: <u>“Clearing” means the removal of vegetation or plant cover by manual, chemical, or mechanical means. Clearing includes, but is not limited to, actions such as cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting, or burning.</u>	Recommended Change – While this term is defined in WCC 16.16 and incorporated into the SMP by reference, the term could apply outside of critical areas within shoreline jurisdiction. In such cases, a definition within the SMP could be helpful for implementation purposes.	Done.
Req-23	16.16.225.B – General Regulations	7. Alteration of Type III or IV wetlands, <u>within exception of shoreline associated wetlands subject to WCC Title 23</u> , that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area; or	Required Change – This change is based on conversations with Whatcom County clarifying that this exception does not apply within shoreline jurisdiction.	Done.
Req-24	16.16.230 – Activities Allowed without Notification	The following activities do not require authorization from Whatcom County. However, this chapter shall not be construed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction. <u>Activities within the shoreline jurisdiction (WCC 23.20.10) may require a shoreline permit or statement of exemption.</u>	Required Change – This change is required for consistency with minimum procedural requirements for permit review in WAC 173-27. There may be instances where a shoreline permit or statement of exemption are required for developments that may otherwise be exempt outside of shoreline jurisdiction. The required language mimics that included in WCC 16.16.235.1 – Activities Allowed with Notification	Done.
Req-25	16.16.235.A – Activities Allowed With Notification	1. The applicant provides a written notification to the Director on a form provided by the Department. Activities within the shoreline jurisdiction (WCC 23.20.010) shall <u>may</u> require a shoreline permit or statement of exemption.	Required Change – This change clarifies the fact that some actions allowed through this process may not meet the definition of “Development” as defined by the SMP. In such cases, a shoreline permit or statement of exemption would technically not be required. In such instances, any applicable standards of the SMP would still apply but the process outlined within this section could still be utilized. For example, removal of a single hazard tree would not require a development permit or exemption per the SMP, however mitigation would still be required consistent with the SMP, including applicable sections of the CAO.	Done.
Req-26	16.16.270.C.12 – Reasonable Use Exceptions	a. On lots outside of the shoreline jurisdiction, w <u>hen</u> an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, those portions of the driveway shall be excluded from the 4,000-square foot maximum impact area; provided, that the access road or driveway meets the standards of WCC 16.16.620(D) or 16.16.720(D), as applicable. b. On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, the applicant shall demonstrate that the size and location of the driveway is the minimum necessary to access the development site.	Required Change – This change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.065.A.	Done.
Rec-25 Req-27	16.16.720.G.4 – Accessory Uses	Accessory water-oriented <u>Uses Structures</u> . When located in the shoreline jurisdiction, residential water-oriented accessory structures <u>including a boat equipment storage shed, an uncovered small boat storage rack, a fire pit, and a pathway leading to the shoreline</u> , may be permitted in an HCA buffer; provided. a. <u>Such structures are located as far from the shoreline as feasible and on previously-impacted buffer areas, and</u>	Recommended Change – This change clarifies that this section is related to accessory structures rather than uses. Required Changes – These changes are required for consistency with the SMP Guidelines governing principle that SMP regulations must be designed to achieve no net loss of ecological functions (WAC 173-26-186(8)). The changes add	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
		<ul style="list-style-type: none"> b. <u>The maximum area, inclusive of existing lawfully-established accessory structures, They</u> shall be limited to 10% of the buffer's area or 500 square feet, whichever is less; and, c. No more than 20% of the linear length of shoreline is occupied by a building or structure; and d. <u>Individual structures shall be limited to a total footprint area of 100-square feet and 10-feet in height, and</u> e. The shoreline is 75% planted (or replanted), <u>or at ratios outlined in 16.16.760 whichever is greater,</u> with native vegetation to a minimum depth of 15 feet landward from the ordinary high water mark. f. <u>This provision shall not apply to residential developments authorized using the constrained lot provisions outlined in 23.40.150.B.</u> 	appropriate sideboards to allow a limited and predictable list of common residential developments that may be located within regulated buffers. The changes include more emphasis on the required mitigation sequence including avoidance, minimization and mitigation of impacts to buffers [WAC 173-26-201(2)(e)]	
Rec-26	16.16.730.A – Habitat Conservation Area Buffers	1. Buffers shall be established for activities adjacent to habitat conservation areas as necessary to protect the integrity, functions, and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent human use or activity. Buffers shall not include areas that are functionally and effectively disconnected from the wetland <u>habitat conservation area</u> by an existing, legally established road or other substantially developed surface.	Recommended Change – Scrivener's error correction. It appears this language was copied from the wetland section without changing the reference to HCAs.	Done.
Rec-27	16.16.740. C – Habitat Conservation Area Buffer Modification	2. In all circumstances when the buffer between the area of reduction and the wetland <u>habitat conservation area</u> is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.	Recommended Change – Scrivener's error correction. It appears this language was copied from the wetland section without changing the reference to HCAs.	Done.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-656

File ID:	AB2021-656	Version:	1	Status:	Agenda Ready
File Created:	11/01/2021	Entered by:	AHaines@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Discussion		
Assigned to:	Council Committee of the Whole	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: jholmes@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion of proposed options for financial assistance to Point Roberts

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

N/A

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-645

File ID:	AB2021-645	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	THelms@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Discussion		
Assigned to:	Council Committee of the Whole				Final Action:
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: Tschroed@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion of the County Executive's recommended 2022 Biennium Budget Adjustments

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Discussion of the County Executive's recommended 2022 Biennium Budget Adjustments

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
<hr/>			

Attachments: Staff Memo, Supplemental Requests

**WHATCOM COUNTY
EXECUTIVE'S OFFICE**

County Courthouse
311 Grand Avenue, Suite #108
Bellingham, WA 98225-4082



Satpal Singh Sidhu
County Executive

MEMO

Date: Oct 19, 2021
To: Whatcom County Council
From: County Executive Satpal Sidhu
RE: Mid-Biennium Adjustment

The County Administration is pleased to present our recommended mid-biennium budget adjustment for your consideration.

As you well remember, the pandemic brought great economic uncertainty as we treaded into uncharted territory. In 2020 as we put together the biennium budget, we expected significant impacts to our County's finances as the economy sharply contracted due to public health measures to control the pandemic. County Council was proactive and took the necessary precautions, cutting spending, tightening budgets and implementing employee furloughs to conserve resources. Thank you for your prudent fiscal policies which helped us remain on stable footing through the uncertainty.

Fortunately, our worst expectations were not confirmed and Whatcom County, along with our State and Nation, survived the economic downturn reasonably well. I credit the prompt actions taken by Federal Government in the form of economic stimulus to individuals and CARES Act funds to local governments.

Earlier this year, Whatcom County was allocated \$44.5 million under the American Rescue Plan Act (ARPA) as well as an additional \$17 million for rental and utility assistance. In the budget adjustment Additional Service Requests (ASRs), you will see the creation of new fund accounts outlining the ARPA fund allocation as suggested by the Council. I am seeking final allocation approval as part of this budget adjustment.

Currently we have a Capital Facilities fund, which is usually expended for maintenance, repairs and additions to the current facilities. County Administration is suggesting to open a new reserve fund called the County Buildings Fund under the Capital Facilities fund to serve as a vehicle to accrue funds annually for future new facility needs. Some such needs include new facilities for Planning & Development Services, Public Works, Sheriff's Office, a new justice and public safety facility, and a new 911 dispatch center. Such projects take time to develop and implement over a 20- to 30-year cycle, which is beyond the tenures of individual County Executives and Council Members. This will be of great benefit to future Councils and Executives, providing flexibility to undertake such projects with reserve funds available. We suggest that every year the budget lapse be allocated by the Council to this County Buildings Fund.

There are more than 100 ASRs being presented as mid-biennium adjustments to the County budget for FY 2022. Most of these ASR's are related to decisions already taken by the Council such as COLA, criminal justice backlog relief, return of frozen positions, affordable housing projects, COVID testing at the jail, and public health projects. Additionally, I am pleased to report that sales and property tax receipts in the General Fund came in \$4.8 million higher than anticipated during budget planning in 2020.

While the overall economic picture is brighter, it is important to recognize that the pandemic continues. Over the past three months we have seen a prolonged surge in hospitalizations and deaths unlike any to date. We cannot let up on our public health response, and you will find a number of ASRs related to continuing the Health Department's efforts to keep our community safe.

You will also see a request for expenditure authority for dedicated grant funding from the State for Foundational Public Health Services, which provides support for 5 new FTE and 4 current positions to support Communicable Disease services, Environmental Public Health programs, data and assessment, epidemiology, communications and administrative functions. Additionally, we are requesting resources to build capacity within the Health Department to support key childcare initiatives and ARPA distributions related to childcare capacity planning, partnerships and service expansion.

Housing security continues to be a significant issue throughout our community. The Health Department is coordinating the delivery of state and federal funds to expand shelter capacity, provide rent and utility assistance and increase case management capacity with the aim of reducing and preventing homelessness. The Council has consistently supported these efforts in the past and I hope you will approve the requested allocations for FY 2022.

Our Human Resources Department has faced a significantly increased workload due to the pandemic, particularly with respect to recruitment and employment for COVID response positions, interpretation and application of new federal and state leave laws and benefits, leave of absence administration due to COVID exposure/illness and school closures, pandemic-related contract amendments, telework policy revision and workplace safety compliance. I support the department's request for an additional FTE, returning a position lost during the Great Recession, to more effectively handle our organization's needs. We are also asking for budget authority to upgrade our recruitment software and move to electronic timesheets, a step that is long overdue.

Finally, I would like to bring to your attention my request to create a new position in the County Executive's Office to provide project management and administrative oversight for the County's strategic initiatives. As you know well, the pandemic has disrupted our community in many ways and exacerbated longstanding problems. The COVID-19 Community Health Impact Assessment identified some of the most acute: an emerging child care crisis; social, racial and economic disparities in school readiness; accelerated erosion of housing affordability; heightened expression of behavioral and mental health issues such as anxiety, depression, and substance use; and a sharp surge in homeless families with children.

Simultaneously, new funding streams have emerged to address both immediate COVID impacts (ARPA) and long-term issues (other state and federal programs for child care, housing, climate resilience, broadband, etc.). I believe it is important that my office increase its capacity to respond commensurately to emerging and longstanding needs and to meet the public's rising expectations for proactive problem-solving. I hope you will support the creation of this new position.

I appreciate your taking the time to review and consider our proposed mid-biennium budget adjustment. There were too many additional service requests to address them each specifically in this memo, so I hope that if you have any questions you will not hesitate to reach out to my office for clarification.

Whatcom County 2021-2022 Mid Biennium Review

Satpal Singh Sidhu, County Executive



Supplemental
Requests

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Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
General Fund										
General Fund - Wage Settlement										
2022 Wage & Ben Adj - Assessor	3365	No	1	300	-	175,381	175,381	-	175,381	175,381
2022 Wage & Ben Adj - Auditor	3366	No	1	various	-	80,547	80,547	-	80,547	80,547
2022 Wage & Ben Adj - Council	3368	No	1	1100	-	99,104	99,104	-	99,104	99,104
2022 Wage & Ben Adj - Clerk	3367	No	1	various	-	69,499	69,499	-	69,499	69,499
2022 Wage & Ben Adj - District Court	3380	No	1	1300	-	(46,262)	(46,262)	-	(46,262)	(46,262)
2022 Wage & Ben Adj - District Court Probation	3382	No	1	1310	-	(2,400)	(2,400)	-	(2,400)	(2,400)
2022 Wage & Ben Adj - Executive	3383	No	1	1200	-	1,714	1,714	-	1,714	1,714
2022 Wage & Ben Adj - Health	3362	No	1	various	(944,174)	975,138	30,964	(944,174)	975,138	30,964
2022 Wage & Ben Adj - Hearing Examiner	3385	No	1	1600	-	(15,414)	(15,414)	-	(15,414)	(15,414)
2022 Wage & Ben Adj - Juvenile	3387	No	1	various	-	(23,299)	(23,299)	-	(23,299)	(23,299)
2022 Wage & Ben Adj - Parks	3388	No	1	various	-	(35,801)	(35,801)	-	(35,801)	(35,801)
2022 Wage & Ben Adj - PDS	3389	No	1	various	-	306,034	306,034	-	306,034	306,034
2022 Wage & Ben Adj - Prosecuting Attorney	3423	No	1	various	-	(169,905)	(169,905)	-	(169,905)	(169,905)
2022 Wage & Ben Adj - Public Defender	3401	No	1	various	(109,520)	35,762	(73,758)	(109,520)	35,762	(73,758)
2022 Wage & Ben Adj - Sheriff	3402	No	1	various	-	274,036	274,036	-	274,036	274,036
2022 Wage & Ben Adj - Superior Court	3403	No	1	various	-	(7,403)	(7,403)	-	(7,403)	(7,403)
2022 Wage & Ben Adj - Treasurer	3404	No	1	3300	-	(24,320)	(24,320)	-	(24,320)	(24,320)
2022 Wage & Ben Adj - WSU Extension	3384	No	1	2000	-	1,026	1,026	-	1,026	1,026
General Fund - Wage Settlement Total					(1,053,694)	1,693,437	639,743	(1,053,694)	1,693,437	639,743
Assessor										
Postage	3422	No	1	300	-	6,000	6,000	-	6,000	6,000
Assessor Total					-	6,000	6,000	-	6,000	6,000
Auditor										
2022 - Licensing Revenue Increase	3453	No	1	560	(100,000)	-	(100,000)	(100,000)	-	(100,000)
Auditor Total					(100,000)	-	(100,000)	(100,000)	-	(100,000)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
General Fund (continued)										
Council										
Public Communications Consultant for IPRTF	3391	No	1	1150	-	50,000	50,000	-	50,000	50,000
Delete Revenue Accounts	3400	No	1	1100	1,340	-	1,340	1,340	-	1,340
COVID Pandemic Response Review	3405	No	1	1100	-	100,000	100,000	-	100,000	100,000
Move Granicus to Non Departmental	3527	No	1	1100	-	(33,125)	(33,125)	-	(33,125)	(33,125)
Council Total					1,340	116,875	118,215	1,340	116,875	118,215
Clerk										
ARPA Wages and Benefits for Clerk 2022	3452	No	1	3152	(69,524)	69,524	-	(69,524)	69,524	-
Clerk Total					(69,524)	69,524	-	(69,524)	69,524	-
District Court										
2022 District Court COVID Backlog	3372	No	1	1304	(182,415)	182,415	-	(182,415)	182,415	-
District Court Total					(182,415)	182,415	-	(182,415)	182,415	-
Executive										
Director of Strategic Initiatives	3520	Yes	1	1200	-	136,823	136,823	-	136,823	136,823
Executive Total					-	136,823	136,823	-	136,823	136,823
Health Department										
Health Officer .6 FTE Request	3468	Yes	1	600200	-	137,999	137,999	-	137,999	137,999
WA State DOH-COVID ELC 2022 Grant	3450	No	1	660480	(147,735)	29,000	(118,735)	(147,735)	29,000	(118,735)
DOH Vaccination/Immunization Grant 2022	3454	No	1	627221	(130,542)	82,239	(48,303)	(130,542)	82,239	(48,303)
New COVID Epidemiology Lab Capacity Grant	3456	No	1	660490	(175,000)	139,242	(35,758)	(175,000)	139,242	(35,758)
TB Elimination Grant	3470	No	1	627402	(20,827)	6,970	(13,857)	(20,827)	6,970	(13,857)
Foundational Public Health Services Funding	3477	Yes	1	660525	(834,950)	525,513	(309,437)	(834,950)	525,513	(309,437)
Child & Family/Childcare Program Expansion	3475	Yes	1	621200	-	245,735	245,735	-	245,735	245,735
NSASO Substance Use Block Grant Increase	3446	No	1	675500	(160,228)	148,359	(11,869)	(160,228)	148,359	(11,869)
Emergency Rental Assistance 2022	3448	No	1	677700	(3,568,628)	3,500,000	(68,628)	(3,568,628)	3,500,000	(68,628)
Food System Plan	3471	No	1	677350	-	40,000	40,000	-	40,000	40,000
North Sound ASO Trueblood Grant	3474	No	1	675700	(98,524)	95,568	(2,956)	(98,524)	95,568	(2,956)
Health Department Total					(5,136,434)	4,950,625	(185,809)	(5,136,434)	4,950,625	(185,809)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
General Fund (continued)										
Hearing Examiner										
Delete Hearing Examiner Building Maint Fees	3516	No	1	1600	-	(8,431)	(8,431)	-	(8,431)	(8,431)
Hearing Examiner Total					-	(8,431)	(8,431)	-	(8,431)	(8,431)
Juvenile										
Replace Juvenile Detention Fingerprint Machine	3497	No	1	1970	-	6,000	6,000	-	-	-
Juvenile Total					-	6,000	6,000	-	-	-
Non-Departmental										
General Fund Sales Tax Revenue Adjustments	3406	No	1	120	(4,800,000)	-	(4,800,000)	(4,800,000)	-	(4,800,000)
Indigent Burial Budget Increase	3424	No	1	4025	-	12,000	12,000	-	12,000	12,000
Increase in What-Comm/Prospect Dispatch	3480	No	1	4250	-	116,646	116,646	-	116,646	116,646
Whatcom Housing Alliance	3483	No	1	4046	-	100,000	100,000	-	100,000	100,000
Association Fees Increase	3485	No	1	4090	-	16,000	16,000	-	16,000	16,000
Executive Contingency Fund	3486	No	1	4900	-	70,000	70,000	-	70,000	70,000
Move Granicus Annual Maintenance	3495	No	1	4019	-	33,125	33,125	-	33,125	33,125
Medical Examiner Transition Costs	3507	No	1	2100	-	100,000	100,000	-	100,000	100,000
GF Transfer to Natural Resources - Climate Plan	3526	No	1	4530	-	120,000	120,000	-	120,000	120,000
Totem Pole	3409	No	1	4019	-	85,500	85,500	-	85,500	85,500
Public Safety Radio - GF Transfer	3531	No	1	4530	-	70,147	70,147	-	70,147	70,147
Non-Departmental Total					(4,800,000)	723,418	(4,076,582)	(4,800,000)	723,418	(4,076,582)
Parks										
Extra Help Rate Increase	3303	No	1	various	-	44,376	44,376	-	44,376	44,376
Lodging Tax Lump Sum Payment to DOR	3324	No	1	6000	-	35,000	35,000	-	35,000	35,000
Supply Cost Increases	3328	No	1	various	-	12,000	12,000	-	12,000	12,000
Silver Lake Shower & Restroom Building Maint	3329	No	1	6003	-	30,000	30,000	-	30,000	30,000
Miscellaneous Increasing Costs	3330	No	1	various	-	15,800	15,800	-	-	-
Parks Total					-	137,176	137,176	-	121,376	121,376
Planning & Development Services										
Fire Inspector Replacement Vehicle	3309	No	1	830	-	60,000	60,000	-	60,000	60,000
Fire Inspector Safety/Investigation Equipment	3413	No	1	830	-	55,600	55,600	-	55,600	55,600
Planning & Development Services Total					-	115,600	115,600	-	115,600	115,600

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
General Fund (continued)										
Prosecuting Attorney										
2022 COVID Backlog Request	3390	No	1	2619	(379,546)	379,546	-	(379,546)	379,546	-
Prosecuting Attorney Total					(379,546)	379,546	-	(379,546)	379,546	-
Public Defender										
2022 Career Path Promotions	3419	No	1	2650	-	32,080	32,080	-	32,080	32,080
ARPA Continued Funding for 9 Temp Positions	3426	No	1	2662	(960,472)	960,472	-	(960,472)	960,472	-
ARPA Extra Help for First Appearance Hearings	3437	No	1	2662	(30,000)	30,000	-	(30,000)	30,000	-
Reclassification for Two Investigator Positions	3455	No	1	2650	-	12,638	12,638	-	12,638	12,638
Funding for Hiring Investigator @ Step 8	3502	No	1	2650	-	15,669	15,669	-	15,669	15,669
Public Defender Total					(990,472)	1,050,859	60,387	(990,472)	1,050,859	60,387
Sheriff										
Sheriff's Office Coordinator - Temp w/Benefits	3431	No	1	2900	-	70,992	70,992	-	70,992	70,992
Law Enforcement Wellness Programs	3449	No	1	2900	-	82,000	82,000	-	82,000	82,000
DOC DTF JAG FY18	3299	No	1	1003521004	(77,500)	-	(77,500)	(77,500)	-	(77,500)
Patrol MDT Upgrade 2022	3435	No	1	2920	-	60,000	60,000	-	-	-
Traffic Unit MDT Upgrade 2022	3436	No	1	2930	-	22,000	22,000	-	-	-
Training Mandates	3439	No	1	2940	-	25,000	25,000	-	25,000	25,000
Replace Records Livescan Machine in 2022	3466	No	1	2911	-	10,000	10,000	-	-	-
Overtime for Training Mandates	3472	No	1	2940	-	25,000	25,000	-	25,000	25,000
Sheriff Total					(77,500)	294,992	217,492	(77,500)	202,992	125,492
Superior Court										
ARPA Wages and Benefits 2022	3451	No	1	3113	(370,127)	370,127	-	(370,127)	370,127	-
Superior Court Total					(370,127)	370,127	-	(370,127)	370,127	-
Treasurer										
Axiom	3340	No	1	3300	-	2,450	2,450	-	-	-
Statement Postage	3357	No	1	3300	-	5,300	5,300	-	5,300	5,300
2022 Property Tax & interest Income Adj	3434	No	1	3300	(1,118,000)	-	(1,118,000)	(1,118,000)	-	(1,118,000)
Treasurer Total					(1,118,000)	7,750	(1,110,250)	(1,118,000)	5,300	(1,112,700)
General Fund Total					(14,276,372)	10,232,736	(4,043,636)	(14,276,372)	10,116,486	(4,159,886)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
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Road Fund

Funding Ferry SBR 3377	3386	No	108	10895	-	2,475	2,475	-	2,475	2,475
Carryover of 2021 Capital Imprvmnts Projects	3301	No	108	108106	-	160,000	160,000	-	160,000	160,000
3500 Gallon Oil Distributor	3319	No	108	108100	-	360,000	360,000	-	360,000	360,000
Safety Training Vehicle	3332	No	108	108100	-	55,000	55,000	-	55,000	55,000
Engineering Tech for M&O	3338	Yes	108	108100	-	89,607	89,607	-	89,607	89,607
Rubber Tired Roller Upgrade	3341	No	108	108100	-	90,000	90,000	-	90,000	90,000
Carryover Remove/Replace CRS Road Oil Tanks	3342	No	108	108106	-	267,400	267,400	-	267,400	267,400
Engineering Tech FTE Work Station	3369	No	108	108100	-	25,000	25,000	-	25,000	25,000
Safety Training Office Equipment	3370	No	108	108100	-	5,000	5,000	-	5,000	5,000
Funding Abel Pit Salt & Sand Storage SBR-3359	3414	No	108	108100	-	45,000	45,000	-	45,000	45,000
2022 Swift Creek Transfer Increase	3500	No	108	108100	-	7,998	7,998	-	7,998	7,998
Road Fund Total					-	1,107,480	1,107,480	-	1,107,480	1,107,480

Veteran's Relief Fund

Veteran Services Increase	3447	No	114	114	-	91,352	91,352	-	91,352	91,352
Veteran's Relief Fund Total					-	91,352	91,352	-	91,352	91,352

Jail Fund

2022 Wage & Benefit Adjustments	3361	No	118	various	-	571,761	571,761	-	571,761	571,761
Extension of COVID Testing Funds into 2022	3407	No	118	118163	(298,000)	298,000	-	(298,000)	298,000	-
Adjust 2022 Sales Tax Revenue	3408	No	118	118100	(1,200,000)	-	(1,200,000)	(1,200,000)	-	(1,200,000)
Replacement of Large Prisoner Transport Truck	3323	No	118	118180	(95,101)	265,267	170,166	-	265,267	265,267
Nursing Services	3353	No	118	118160	-	88,000	88,000	-	88,000	88,000
MOUD Medication Increase	3355	No	118	118164	(10,000)	25,000	15,000	(10,000)	25,000	15,000
Medical Social Worker	3364	No	118	118160	-	125,000	125,000	(62,500)	125,000	62,500
Training	3381	No	118	118195	-	50,027	50,027	-	50,027	50,027
Jail Fund Total					(1,603,101)	1,423,055	(180,046)	(1,570,500)	1,423,055	(147,445)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Homeless Housing Fund										
2022 Wage & Benefit Adjustments	3415	No	122	122200	-	4,370	4,370	-	4,370	4,370
Commerce HEN Grant Increase	3393	No	122	122600	(1,386,142)	1,386,142	-	(1,386,142)	1,386,142	-
DOC Shelter Program Grant	3395	No	122	122900	(342,977)	342,977	-	(342,977)	342,977	-
Housing Services Increase	3438	No	122	122200	-	428,213	428,213	-	428,213	428,213
Emergency Solutions Grant - COVID	3440	No	122	122800	(1,270,000)	1,270,000	-	(1,270,000)	1,270,000	-
Homeless Housing Fund Total					(2,999,119)	3,431,702	432,583	(2,999,119)	3,431,702	432,583
Stormwater Fund										
Stormwater Engineering Shift to LWSU	3506	No	123	123201	126,528	(126,528)	-	126,528	(126,528)	-
Stormwater Fund Total					126,528	(126,528)	-	126,528	(126,528)	-
Behavioral Health Fund										
2022 Wage & Benefit Adjustments - Health	3416	No	124	various	-	70,727	70,727	-	70,727	70,727
Triage Facility Maintenance	3443	No	124	124116	-	39,000	39,000	-	39,000	39,000
Training for First Responders & Providers	3444	No	124	124121	(20,000)	20,000	-	(20,000)	20,000	-
City of Bellingham GRACE Award Increase	3445	No	124	124120	(140,000)	140,000	-	(140,000)	140,000	-
Behavioral Health Services Support	3469	No	124	124100	(1,200,000)	262,637	(937,363)	(1,200,000)	262,637	(937,363)
2022 Wage & Benefit Adjustments - Drug Court	3429	No	124	various	-	2,340	2,340	-	2,340	2,340
Transfer in Support of Jail Medical Social Wrkr	3530	No	124	124100	-	62,500	62,500	-	62,500	62,500
Behavioral Health Fund Total					(1,360,000)	597,204	(762,796)	(1,360,000)	597,204	(762,796)
Mental Health and Developmental Disabilities Fund										
Specialized Support Services Expansion	3473	No	127	127100	-	34,257	34,257	-	34,257	34,257
Mental Health and Developmental Disabilities Fund Total					-	34,257	34,257	-	34,257	34,257
Swift Creek Sediment Management Fund										
2022 Swift Creek Transfer Increase	3501	No	128	128200	(15,996)	-	(15,996)	(15,996)	-	(15,996)
Swift Creek Sediment Management Fund Total					(15,996)	-	(15,996)	(15,996)	-	(15,996)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Countywide Emergency Medical Services Fund										
2022 EMS Revenue & Contractual Adjustments	3318	No	130	130100	(1,830,846)	894,675	(936,171)	(1,830,846)	894,675	(936,171)
EMS Admin Training Specialist 2022 Budget	3333	No	130	130110	-	56,576	56,576	-	56,576	56,576
Community Paramedic 2022 Budget	3334	No	130	130115	-	195,712	195,712	-	195,712	195,712
EMS Administration - Administrative Assistant	3336	Yes	130	130100	-	91,585	91,585	-	91,585	91,585
EMS Administration - Data Analyst Budget	3374	No	130	130100	(22,500)	76,497	53,997	(22,500)	76,497	53,997
2022 Lateral Paramedic Training	3427	No	130	130110	-	356,016	356,016	-	356,016	356,016
2022 Paramedic Training Class	3461	No	130	130110	-	1,555,200	1,555,200	-	1,555,200	1,555,200
2022 Public Safety Sales Tax Adjustment	3432	No	130	130200	(200,000)	-	(200,000)	(200,000)	-	(200,000)
2022 5th Medic Unit Implementation	3467	No	130	130120	-	1,496,500	1,496,500	-	1,496,500	1,496,500
Countywide Emergency Medical Services Fund Total					(2,053,346)	4,722,761	2,669,415	(2,053,346)	4,722,761	2,669,415
Lake Whatcom Stormwater Utility Fund										
Lake Whatcom Stormwater Utility 2022 Update	3505	No	132	132100	-	8,528	8,528	-	8,528	8,528
Lake Whatcom Stormwater Utility Fund Total					-	8,528	8,528	-	8,528	8,528
Affordable Housing, Behavioral Health Facilities, and Related Services Program Fund										
Affordable Housing Development	3442	Yes	133	133100	(1,181,215)	1,181,215	-	(1,181,215)	1,181,215	-
Affordable Housing, Behavioral Hlth Facilities, Related Svcs Prog Fund					(1,181,215)	1,181,215	-	(1,181,215)	1,181,215	-
American Rescue Plan Act Fund										
COVID Response Staffing and Hlth Data System	3476	Yes	138		-	3,860,191	3,860,191	-	3,860,191	3,860,191
ARPA Housing Security	3343	No	138		-	3,500,000	3,500,000	-	3,500,000	3,500,000
ARPA Economic Recovery - Childcare - Capital	3345	No	138		-	3,500,000	3,500,000	-	3,500,000	3,500,000
ARPA Economic Recovery - Childcare Workforce	3346	No	138		-	2,000,000	2,000,000	-	2,000,000	2,000,000
ARPA Cap Projects - Community Infrastructure	3347	No	138		-	3,000,000	3,000,000	-	3,000,000	3,000,000
ARPA Broadband Support	3348	No	138		-	2,000,000	2,000,000	-	2,000,000	2,000,000
Leased Space for Public Defender's New Staff	3356	No	138		-	100,000	100,000	-	100,000	100,000
Administrating ARPA - Grant Manager	3360	No	138	138100	-	217,779	217,779	-	217,779	217,779
COVID Transport Van Staffing	3441	No	138	138100	-	64,000	64,000	-	64,000	64,000
Transfer Out to Fund Dept ARPA Expenditures	3512	No	138	138100	-	2,393,971	2,393,971	-	2,393,971	2,393,971
2022 ARPA Revenue from U.S. Treasury	3529	No	138	138100	(22,264,271)	-	(22,264,271)	(22,264,271)	-	(22,264,271)
American Rescue Plan Act Fund Total					(22,264,271)	20,635,941	(1,628,330)	(22,264,271)	20,635,941	(1,628,330)

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Solid Waste Fund										
2022 Wage & Benefit Adjustments	3428	No	140	various	-	(30,209)	(30,209)	-	(30,209)	(30,209)
Solid Waste Property Cleanup with Liens	3457	No	140	140100	-	62,840	62,840	-	62,840	62,840
Point Roberts Trailer	3458	No	140	140201	-	188,520	188,520	-	188,520	188,520
Solid Waste Facilities Improvements	3465	No	140	140204	-	25,136	25,136	-	25,136	25,136
Solid Waste Fund Total					-	246,287	246,287	-	246,287	246,287
Convention Center Fund										
2022 Lodging Tax Commitments	3482	No	141	14100	(400,000)	728,575	328,575	(400,000)	728,575	328,575
Convention Center Fund Total					(400,000)	728,575	328,575	(400,000)	728,575	328,575
Victim Witness Fund										
2022 Wage & Benefit Adjustments	3425	No	142	14200	-	2,290	2,290	-	2,290	2,290
Victim Witness Fund Total					-	2,290	2,290	-	2,290	2,290
Emergency Management Fund										
Public Safety Radio System - Annual Exp 2022	3397	No	167	1673519001	(55,747)	55,747	-	(55,747)	55,747	-
Emergency Management Fund Total					(55,747)	55,747	-	(55,747)	55,747	-
Flood Control Zone District Fund										
2022 Washington State Auditor Fees	6430	No	169	169100	-	12,500	12,500	-	12,500	12,500
2022 Software Maintenance Cost Increase	6432	No	169	169100	-	5,000	5,000	-	5,000	5,000
Collaborative Water Solutions Process 2022	6426	No	169	169121	(125,000)	375,000	250,000	(125,000)	375,000	250,000
WSU Extension Natural Resources O&E 2022	6427	No	169	169119	-	25,000	25,000	-	25,000	25,000
AIS Enforcement Funding	6431	No	169	169120	-	28,000	28,000	-	28,000	28,000
Domestic Water Use Efficiency Program	6434	No	169	169121	-	40,000	40,000	-	40,000	40,000
Climate Action Planner	6435	Yes	169	169121	(120,000)	120,000	-	(120,000)	120,000	-
PIC Livestock Technical Assistance Program	6436	No	169	813002	-	50,000	50,000	-	50,000	50,000
Flood Control Zone District Fund Total					(245,000)	655,500	410,500	(245,000)	655,500	410,500
Ferry System Fund										
Sanican Rental and Support at Gooseberry Dock	3377	No	444	44520	(2,475)	5,500	3,025	(2,475)	5,500	3,025
Ferry System Fund Total					(2,475)	5,500	3,025	(2,475)	5,500	3,025

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Equipment Rental & Revolving Fund										
Expanded Shop Service Writer Office Remodel	3257	No	501	501400	-	40,000	40,000	-	40,000	40,000
Carryover of 2021 Capital Vehicle Replacements	3300	No	501	501100	-	812,000	812,000	-	812,000	812,000
PDS Fire Inspector Vehicle	3339	No	501	501100	(60,000)	60,000	-	(60,000)	60,000	-
Able Pit Salt and Sand Storage	3359	No	501	501600	(45,000)	45,000	-	(45,000)	45,000	-
M&O Safety Training Vehicle	3417	No	501	501100	(55,000)	55,000	-	(55,000)	55,000	-
3500 Gallon Oil Distributor Companion	3418	No	501	501100	(360,000)	360,000	-	(360,000)	360,000	-
Rubber Tired Roller Upgrade Companion	3420	No	501	501100	(90,000)	90,000	-	(90,000)	90,000	-
Large Prisoner Transport Truck Companion	3532	No	501	501100	(265,267)	450,000	184,733	(265,267)	450,000	184,733
Equipment Rental & Revolving Fund Total					(875,267)	1,912,000	1,036,733	(875,267)	1,912,000	1,036,733
Administrative Services Fund										
Administration										
Record 2022 Wage & Ben Adj - Admin Services	3358	No	507	various	-	199,080	199,080	-	199,080	199,080
Leave Cash Out Reserve	3528	No	507	507100	-	100,000	100,000	-	100,000	100,000
Administration Total					-	299,080	299,080	-	299,080	299,080
Facilities										
Plow Truck	3294	No	507	50791	-	82,500	82,500	-	-	-
Cash Out Funds for Retiring Employees	3411	No	507	50790	-	34,400	34,400	-	-	-
Reclassification - Facilities Asst to Admin Asst	3412	No	507	50710	-	6,598	6,598	-	6,598	6,598
Facilities Total					-	123,498	123,498	-	6,598	6,598
Finance										
Grant Compliance Specialist	3379	No	507	507130	(52,980)	105,959	52,979	(52,980)	105,959	52,979
Financial Reporting Cloud Subscription	3481	No	507	507130	-	30,000	30,000	-	30,000	30,000
Electronic Timesheets	3504	No	507	507130	-	130,000	130,000	-	130,000	130,000
Finance Total					(52,980)	265,959	212,979	(52,980)	265,959	212,979

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Administrative Fund (continued)										
Information Technology										
Replace Courthouse Data Center UPS Batteries	3487	No	507	507111	-	25,000	25,000	-	-	-
Replace Firewall Intrusion Detection System	3488	No	507	507111	-	30,000	30,000	-	30,000	30,000
Replace Telecommunications E911 Appliances	3489	No	507	507111	-	30,000	30,000	-	-	-
COVID Related Video Conf/Remote Access	3490	No	507	507111	-	30,000	30,000	-	30,000	30,000
Multi-Factor Authentication for Remote Access	3491	No	507	507111	-	16,000	16,000	-	16,000	16,000
Website Platform Upgrd to Civic Evolve Addns	3492	No	507	507111	-	41,000	41,000	-	41,000	41,000
Website Accessibility Enhancements	3493	No	507	507111	-	12,000	12,000	-	12,000	12,000
COVID Related Laserfiche Forms License Addns	3494	No	507	507111	-	10,000	10,000	-	10,000	10,000
Capture Countywide Building Footprints for GIS	3496	No	507	507111	-	30,000	30,000	-	-	-
Hardware Maintenance for New WiFi Controller	3503	No	507	507111	-	6,500	6,500	-	-	-
Website Online Forms Automation	3510	No	507	507111	-	19,000	19,000	-	19,000	19,000
Information Technology Total					-	249,500	249,500	-	158,000	158,000
Human Resources										
Compensation Consultant for Unrep Study	3373	No	507	507140	-	50,000	50,000	-	50,000	50,000
1 FTE Human Resources Representative II	3399	Yes	507		(50,908)	101,816	50,908	(50,908)	101,816	50,908
Reclassification of HR Representative III	3376	No	507	507140	-	4,626	4,626	-	4,626	4,626
Enhanced HR Recruitment Software	3517	No	507	507140	-	45,000	45,000	-	45,000	45,000
Human Resources Total					(50,908)	201,442	150,534	(50,908)	201,442	150,534
Administrative Services Fund Total					(103,888)	1,139,479	1,035,591	(103,888)	931,079	827,191
REET I Fund										
Courthouse Security Upgrades	3293	No	326	Unassigned	-	217,000	217,000	-	217,000	217,000
Courthouse Signage	3410	No	326	Unassigned	-	125,000	125,000	-	125,000	125,000
REET I Fund Total					-	342,000	342,000	-	342,000	342,000

Request Description	Supp No.	Add'l FTE	Fund	Cost Center	Requested Revenue	Requested Expenditure	Requested Net Amount	Approved Revenue	Approved Expenditure	Approved Net Amount
Public Utilities Improvement Fund										
EDI - POB County Rural Broadband 2021	3263	No	332	332248	-	2,000,000	2,000,000	-	2,000,000	2,000,000
2022 Public Improvement Fund Tax Rev Adj	3430	No	332	332100	(1,100,000)	-	(1,100,000)	(1,100,000)	-	(1,100,000)
Economic Development - Tri-Funder Agreement	3484	No	332	332219	-	708,165	708,165	-	708,165	708,165
EDI - Housing Affordable (HATWF) Loan Prog	3519	No	332	332213	-	500,000	500,000	-	500,000	500,000
Public Utilities Improvement Fund Total					(1,100,000)	3,208,165	2,108,165	(1,100,000)	3,208,165	2,108,165
Grand Totals					(48,409,269)	51,635,246	3,225,977	(48,376,668)	51,310,596	2,933,928



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-612

File ID:	AB2021-612	Version:	1	Status:	Agenda Ready
File Created:	10/19/2021	Entered by:	CHalka@co.whatcom.wa.us		
Department:	Council Office	File Type:	Request for Motion		
Assigned to:	Council Committee of the Whole			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: chalka@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Discussion and request for motion regarding County Council meeting broadcast on Bellingham public access television (BTV) and streaming on YouTube

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Discussion and request for motion regarding County Council meeting broadcast on Bellingham public access television (BTV) and streaming on YouTube

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: MIN2021-082

File ID:	MIN2021-082	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	KFelbing@co.whatcom.wa.us		
Department:	Council Office	File Type:	Minutes Consent		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: kfelbing@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Committee of the Whole for October 26, 2021

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

None

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Draft Minutes Committee of the Whole Oct 26 2021

Whatcom County Council Committee of the Whole

**COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010**



Committee Minutes - Draft Minutes

Tuesday, October 26, 2021

2:25 PM

Virtual Meeting

**VIRTUAL MEETING - ADJOURNS BY 4:45 P.M. (TO PARTICIPATE, SEE
INSTRUCTIONS AT www.whatcomcounty.us/joinvirtualcouncil OR CALL
360.778.5010)**

COUNCILMEMBERS

Rud Browne
Barry Buchanan
Tyler Byrd
Todd Donovan
Ben Elenbaas
Carol Frazey
Kathy Kershner

CLERK OF THE COUNCIL

Dana Brown-Davis, C.M.C.

Call To Order

Council Chair Barry Buchanan called the meeting to order at 3 p.m. in a virtual meeting.

Roll Call

Present: 7 - Rud Browne, Barry Buchanan, Tyler Byrd, Todd Donovan, Ben Elenbaas, Carol Frazey, and Kathy Kershner

Absent: None

Announcements**Special Presentation**

1. [AB2021-608](#) LEAD and GRACE Annual Community Impact Report

The following people presented:

- Vanessa Martin, Prosecuting Attorney's Office
- Malora Christensen, GRACE & LEAD Program Manager
- Eric Richey, Whatcom County Prosecuting Attorney
- Tommy McAuliffe, LEAD Program Supervisor

They answered whether the Law Enforcement Assisted Diversion (LEAD) program is still grant-funded, whether there are only four case managers doing the work for each program, and supporting more case managers in the County.

Satpal Sidhu, County Executive, thanked the speakers for their work and stated a lot is happening behind the scenes.

This agenda item was PRESENTED.

Committee Discussion

1. [AB2020-219](#) Discussion and update on strategies and other items related to COVID-19 (Council and Health Board)

The following people presented about COVID-19 trends and testing:

- Erika Lautenbach, Health Department Director
- Greg Thompson, Co-Health Officer

This agenda item was REPORTED.

2. [AB2021-395](#) Discussion and periodic update of the Shoreline Management Program

The following people briefed Councilmembers on the "Staff Memo for 10-26-21" (on file) and answered questions about proposed changes:

- Cliff Strong, Planning and Development Services Department
- Ryan Ericson, former Planning and Development Services Department

This agenda item was DISCUSSED.

3. [AB2021-209](#) Resolution regarding permanent affordability of childcare in Whatcom County
- Buchanan referred to the "CFWB Task Force Letter for 10.26.2021" (on file).

Judy Ziels, Health Department, briefed the Councilmembers.

Browne shared a spreadsheet (sent to Councilmembers via email during the meeting) in which he tried to quantify the cost of the proposed programs, and Councilmembers and staff discussed the information, whether programs that require an ongoing source of funding should be started, using the tool to work out what they want to allocate the non-recurring funding to then trying to find permanent funding for the other programs, and whether the Child and Family Well-Being Task Force is working on a parallel worksheet on financial impacts.

This agenda item was DISCUSSED.

4. [AB2021-610](#) Discussion with County Executive on options for aid to Point Roberts
- The following people briefed Councilmembers and referred to a memo (on file) and possible actions steps:

- Satpal Sidhu, County Executive
- Tyler Schroeder, Executive's Office

The speakers discussed the options with Councilmembers and answered how the situation is different in Point Roberts than in other border communities, what the people in Point Roberts say would be most beneficial to them, and what applications they would use for grant applications if they went with option three (Grants to impacted businesses ineligible for state grants).

This agenda item was DISCUSSED.

5. [AB2021-482](#) Presentation and discussion regarding Whatcom County's proposed American Rescue Plan Act funding priorities
- Tyler Schroeder, Executive's Office, briefed the Councilmembers.

This agenda item was REPORTED.

Committee Discussion and Recommendation to Council

1. [AB2021-611](#) Discussion and possible motion to recommend rescinding a previous action of the Council that established a no shooting zone in Drayton Harbor

This item was not discussed.

This agenda item was NOT ACTED UPON.

Items Added by Revision

There were no agenda items added by revision.

Other Business

There was no other business.

Adjournment

The meeting adjourned at 4:45 p.m.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WA

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

Kristi Felbinger, Minutes Transcription



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

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Primary Contact Email: kfelbing@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Regular County Council for October 26, 2021

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

None

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Draft Mintues Council Oct 26 2021

Whatcom County Council

**COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010**



Minutes - Draft Minutes

Tuesday, October 26, 2021

6 PM

Virtual Meeting

**VIRTUAL MEETING (TO PARTICIPATE, SEE INSTRUCTIONS AT
www.whatcomcounty.us/joinvirtualcouncil OR CALL 360.778.5010)**

COUNCILMEMBERS

Rud Browne
Barry Buchanan
Tyler Byrd
Todd Donovan
Ben Elenbaas
Carol Frazey
Kathy Kershner

CLERK OF THE COUNCIL

Dana Brown-Davis, C.M.C.

COUNTY COUNCIL

CALL TO ORDER

Council Chair Barry Buchanan called the meeting to order at 6:01 p.m. in a virtual meeting.

ROLL CALL

Present: 7 - Rud Browne, Barry Buchanan, Tyler Byrd, Todd Donovan, Ben Elenbaas, Carol Frazey, and Kathy Kershner

Absent: None

FLAG SALUTE

ANNOUNCEMENTS

The Council is accepting applications to fill vacancies on the Business and Commerce Advisory Committee. Applicants must represent the food processing industry or manufacturing industry. If you are interested and meet these qualifications, please let us know at 360-778-5010 or email the council at Council@co.whatcom.wa.us.

COUNTY EXECUTIVE'S REPORT

Satpal Sidhu, County Executive, reported on the following:

- A memo sent to Councilmembers regarding mid-biennium budget adjustments
- The Intalco plant reopening

MINUTES CONSENT

Donovan moved to accept the minutes consent items. The motion was seconded by Frazey (see votes on individual items below).

1. [MIN2021-079](#) Committee of the Whole for October 12, 2021

Donovan moved and Frazey seconded that the Minutes Consent be APPROVED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

2. [MIN2021-080](#) Regular County Council for October 12, 2021

Donovan moved and Frazey seconded that the Minutes Consent be APPROVED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

3. [MIN2021-081](#) Special Committee of the Whole Executive Session for October 19, 2021

Donovan moved and Frazey seconded that the Minutes Consent be APPROVED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

PUBLIC HEARINGS

Council staff played a short instructional video about how to speak at the meeting.

1. [AB2021-572](#) Ordinance amending Whatcom County Code 12.20 Road Vacations to update procedures for processing petitions

Andrew Hester, Public Works Department, stated he is available for questions.

Buchanan opened the Public Hearing and, hearing no one, closed the Public Hearing.

Donovan moved and Byrd seconded that the Ordinance Requiring a Public Hearing be ADOPTED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

Enactment No: ORD 2021-065

2. [AB2021-576](#) Resolution adopting the 2022 Annual Construction Program (ACP)

Jim Karcher, Public Works Department, stated he was available for questions.

Buchanan opened the Public Hearing and the following person spoke:

- Ken Domorod

Hearing no one else, Buchanan closed the Public Hearing.

Frazey moved and Donovan seconded that the Resolution Requiring a Public Hearing be APPROVED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

Enactment No: RES 2021-045

3. [AB2021-590](#) Ordinance imposing a second interim moratorium on the acceptance and processing of permit applications for new or expanded recreational cannabis growing and/or processing facilities which are proposed to operate outdoors or in greenhouses

Mark Personius, Planning and Development Services Department Director, briefed the Councilmembers and answered a question about when Council will get recommendations from the Planning Commission.

Buchanan opened the Public Hearing and the following person spoke:

- Ken Domorod

Hearing no one else, Buchanan closed the Public Hearing.

Councilmembers voted on the ordinance and Dana Brown-Davis, Clerk of the Council, clarified that the ordinance voted on was a substitute.

Donovan's motion that the SUBSTITUTE Ordinance Requiring a Public Hearing be ADOPTED carried by the following vote:

Aye: 5 - Browne, Buchanan, Byrd, Donovan, and Frazey

Nay: 2 - Elenbaas, and Kershner

Absent: 0

Enactment No: ORD 2021-066

OPEN SESSION (20 MINUTES)

The following people spoke:

- Katherine Telford
- Robert Bystrom
- Rob Viens
- Jennifer Durant
- Shannon Wallace
- Ken Domorod

- Cynthia Thompson
- David Spring
- Markis Dee Stidham
- Nancy Hill
- Rebecca Wilson
- Sam Kloes
- Misty Flowers
- Melissa Wisener
- Kelley Bouma
- Nancy Eklund
- Christie Duque

Byrd stated he rises to ask a question and the Council Chair granted it.

Donovan stated he rises to ask a question and the Council Chair granted it.

Elenbaas stated he would answer questions after public comment.

The open session continued and the following people spoke:

- Mary Stidham
- Shean Halley
- Sarah Rose
- Natalie Chavez
- Jean Purcell
- Megan Wiseman
- Rosemary VanBeek
- Mark Ambler
- Hannah Ordos
- Chad Butenschoen

Hearing no one else, Buchanan closed the Open Session.

Browne responded to comments made during the open session.

CONSENT AGENDA

(From Council Finance and Administrative Services Committee)

Browne reported for the Finance and Administrative Services Committee and ***moved*** to approve Consent Agenda items one through four.

Councilmembers discussed and voted on those items (see votes on individual items below).

1. [AB2021-585](#) Request authorization for the County Executive to enter into an interlocal agreement

between Whatcom County and U.S. Department of Justice Drug Enforcement Administration for Cooperative State and Local Task Force Agreement FY2022

Browne reported for the Finance and Administrative Services Committee and moved that the Interlocal be AUTHORIZED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

2. [AB2021-586](#) Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and U.S. Department of Justice Drug Enforcement Administration for Program-Funded State and Local Task Force Agreement FY2022, in the amount of \$38,744.00

Browne reported for the Finance and Administrative Services Committee and moved that the Interlocal be AUTHORIZED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

3. [AB2021-588](#) Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and San Juan County for Whatcom County Veteran Service Officer support services to San Juan County resident veterans, in an amount not to exceed \$10,000

Browne reported for the Finance and Administrative Services Committee and moved that the Interlocal be AUTHORIZED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

4. [AB2021-604](#) Request authorization for the County Executive to enter into a contract between Whatcom County and National Service Office for Nurse-Family Partnership to provide technical support and training, in the estimated amount of \$42,444

Browne reported for the Finance and Administrative Services Committee and moved that the Contract be AUTHORIZED BY CONSENT. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

OTHER ITEMS

(From Council Finance and Administrative Services Committee)

1. [AB2021-447](#) Resolution accepting the 2021 Whatcom County Comprehensive Economic Development Strategy (CEDS) and amended Appendix and approving submittal of the draft to the United States Department of Commerce Economic Development Administration

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the SUBSTITUTE Resolution be APPROVED.

Donovan read the substitute title into the record.

Browne's motion that the SUBSTITUTE Resolution be APPROVED carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

Enactment No: RES 2021-046

2. [AB2021-582](#) Ordinance amending the 2021 Whatcom County Budget, request no. 16, in the amount of \$411,953

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the Ordinance be ADOPTED.

The following people answered questions about the \$385,466 to fund amendment to Opportunity Council CDBG grant to fund services to counter COVID-related community impacts.

- Tyler Schroeder, Executive's Office
- Satpal Sidhu, County Executive

Byrd moved to table the agenda item. The motion was seconded by Kershner.

Councilmembers discussed the motion and Sidhu answered how the Opportunity Council came to be the steward of this grant.

The motion failed by the following vote:

Aye: 1 - Byrd

Nay: 6 - Kershner, Browne, Buchanan, Donovan, Elenbaas, and Frazey

Browne's motion that the Ordinance be ADOPTED carried by the following vote:

Aye: 6 - Browne, Buchanan, Donovan, Elenbaas, Frazey, and Kershner

Nay: 1 - Byrd

Absent: 0

Enactment No: ORD 2021-067

3. [AB2021-583](#) Resolution amending the Flood Control Zone District & Subzones 2021 budget, request no. 4, in the amount of \$855,502 (Council acting as the Whatcom County Flood Control Zone District Board of Supervisors)

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the Resolution (FCZDBS) be APPROVED.

Councilmembers discussed whether they had gotten a presentation from staff.

Tyler Schroeder, Executive's Office, briefed the Councilmembers.

Browne's motion that the Resolution (FCZDBS) be APPROVED carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

Enactment No: RES 2021-047

4. [AB2021-593](#) Request authorization for the County Executive to enter into an interlocal agreement between Whatcom County and Island County to provide COVID-related isolation and quarantine to Island County residents, in the amount of \$200 per resident, per day

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the Interlocal be AUTHORIZED.

Councilmembers discussed the item.

Tyler Schroeder, Executive's Office, responded to a question about whether

the \$200 a day covers the cost that Whatcom County is putting out to have that facility open.

Byrd moved to amend the interlocal to approve this tonight with the expectation that if it comes back to us in three months that it either has full funding by FEMA, by the State, or it is a cost share agreement with the other counties. The motion was seconded by Kershner.

Councilmembers discussed the motion and Satpal Sidhu, County Executive, and Tyler Schroeder answered questions.

Buchanan suggested they approve this interlocal now and then do a motion (like Byrd's) for going forward with any new interlocal agreements that are created with other counties.

Byrd withdrew his motion and Kershner withdrew her second.

Councilmembers discussed the main motion and Schroeder and Sidhu answered whether other counties have their own facilities or are dependent on our facility, whether other counties would be shutting their facilities down if ours became a regional facility, whether it is less likely to be reimbursed from FEMA if Whatcom County shares the cost with other counties, whether FEMA usually gives only 80% of the cost back to the County, how the number of \$200 a night was derived, how many rooms there are, and what the current cost is per room.

Browne's motion that the Interlocal be AUTHORIZED carried by the following vote:

Aye: 6 - Browne, Buchanan, Byrd, Donovan, Frazey, and Kershner

Nay: 1 - Elenbaas

Absent: 0

5. [AB2021-595](#) Request authorization for the County Executive to enter into a contract amendment between Whatcom County and Opportunity Council to administer the Housing and Essential Needs Program in the amount of \$503,370 for a total amended contract amount of \$2,540,694

Browne reported for the Finance and Administrative Services Committee and **moved** that the Contract be AUTHORIZED.

Tyler Schroeder, Executive's Office, answered what this cost includes.

Browne's motion that the Contract be AUTHORIZED carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

6. [AB2021-600](#) Request authorization for the County Executive to enter into a contract between Whatcom County Flood Control Zone District and Geneva Consulting Services for the coordination of the Whatcom Lead Integrating Organization (Council acting as the Whatcom County Flood Control Zone District Board of Supervisors)

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the Contract (FCZDBS) be AUTHORIZED.

Tyler Schroeder, Executive's Office, answered a question about the scope of work for the Lead Integrating Organization (LIO).

Browne's motion that the Contract (FCZDBS) be AUTHORIZED carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

7. [AB2021-602](#) Request authorization for the County Executive to enter into an agreement between Whatcom County and Greg Dibble for the lease of 600 Dupont Street, Bellingham WA

Browne reported for the Finance and Administrative Services Committee and ***moved*** that the Agreement be AUTHORIZED.

Byrd explained why he abstained on the vote in the Finance and Administrative Services Committee and Councilmembers discussed why the space is needed, and whether the monthly and annual amount is in line with renting other commercial space.

Tyler Schroeder, Executive's Office, answered how big the whole building is and how much the County will spend over three years.

Browne's motion that the Agreement be AUTHORIZED carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

(From Council Public Works and Health Committee)

8. [AB2021-598](#) Discussion and request for motion regarding community requested revision to the Birch Bay Golf Cart Zone boundary

Frazey reported for the Public Works and Health Committee and ***moved*** to extend the current Birch Bay golf cart zone to Gemini Street.

Dana Brown-Davis, Clerk of the Council, clarified whether the motion from committee was to have the Public Works Department create an ordinance to extend the zone to Gemini Street.

Frazey stated ***that should be the motion.***

The motion carried by the following vote:

Aye: 7 - Kershner, Browne, Buchanan, Byrd, Donovan, Elenbaas, and Frazey

Nay: 0

This agenda item was DISCUSSED AND MOTION(S) APPROVED.

(From Council Committee of the Whole)

9. [AB2021-611](#) Discussion and possible motion to recommend rescinding a previous action of the Council that established a no shooting zone in Drayton Harbor

Buchanan briefed the Councilmembers about why the item is on the agenda.

Dana Brown-Davis, Clerk of the Council, briefed Councilmembers on the best process and type of motion for this item. She stated the best way to bring this back is to rescind the motion that adopted it on October 12, 2021.

Byrd gave his analysis on the procedure and stated a new ordinance should be brought forward.

Brown-Davis clarified that the County Executive has ten days to sign after presented to his office and the former ordinance was not taken to his office until Thursday of last week.

Karen Frakes, Prosecuting Attorney's Office, stated the procedure the Clerk of the Council is recommending is appropriate and legal.

Councilmembers discussed the options and whether they should reconsider or rescind the motion to adopt.

Brown-Davis stated a motion to reconsider can be presented at the same

meeting (in which the ordinance was adopted), but because this was adopted in a past meeting it has to be a motion to rescind.

Elenbaas moved to rescind the motion that adopted Ordinance 2021-061 on October 12, 2021 (the no-shooting zone in Drayton Harbor). The motion was seconded by Donovan.

The motion to rescind carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

This agenda item was DISCUSSED AND MOTION(S) APPROVED.

ITEMS ADDED BY REVISION

There were no agenda items added by revision.

INTRODUCTION ITEMS

Buchanan stated that AB2021-594 is a substitute.

Donovan moved and Frazey seconded that agenda items 1-5 be introduced.

The motion carried by the following vote:

Aye: 7 - Buchanan, Byrd, Donovan, Elenbaas, Frazey, Kershner, and Browne

Nay: 0

Councilmembers started to give committee reports but Dana Brown-Davis, Clerk of the Council, stated that the AB2021-606 was recommended for withdrawal from introduction in committee.

Donovan moved to reconsider the motion to introduce items 1-5 so that item number 4 can be removed. The motion was seconded by Elenbaas.

The motion to reconsider carried by the following vote:

Aye: 7 - Byrd, Donovan, Elenbaas, Frazey, Kershner, Browne, and Buchanan

Nay: 0

Donovan moved and Elenbaas seconded to introduce all introduction items except for AB2021-606 (see motion and votes on individual items below).

1. [AB2021-594](#) Ordinance amending Whatcom County Code Chapter 2.02 (County Council) to define absence and temporary disability

Donovan moved and Elenbaas seconded that the SUBSTITUTE Ordinance be INTRODUCED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

2. [AB2021-599](#) Ordinance establishing the Ferry Fare Capital Surcharge Fund

Donovan moved and Elenbaas seconded that the Ordinance be INTRODUCED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

3. [AB2021-601](#) Ordinance amending the 2021 Whatcom County Budget, request no. 17, in the amount of \$4,967,500

Donovan moved and Elenbaas seconded that the Ordinance be INTRODUCED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

4. [AB2021-606](#) Ordinance adopting amendments to the Whatcom County Code Title 20, Zoning, to provide additional affordable housing options, including allowing and regulating tiny homes and allowing duplexes in planned unit developments

This agenda item was WITHDRAWN.

5. [AB2021-609](#) Ordinance amending Whatcom County Code Title 3 (Revenue and Finance), specifically Chapters 3.06 (Grants) and 3.08 (Purchasing System)

Donovan moved and Elenbaas seconded that the Ordinance be INTRODUCED. The motion carried by the following vote:

Aye: 7 - Browne, Buchanan, Byrd, Donovan, Elenbaas, Frazey, and Kershner

Nay: 0

Absent: 0

COMMITTEE REPORTS, OTHER ITEMS, AND COUNCILMEMBER UPDATES

Councilmembers gave committee reports and other updates.

ADJOURN

The meeting adjourned at 9:49 p.m.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WA

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

Kristi Felbinger, Minutes Transcription



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
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Agenda Bill Master Report

File Number: AB2021-625

File ID:	AB2021-625	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	AKell@co.whatcom.wa.us		
Department:	Council Office	File Type:	Resolution		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: sdraper@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution approving the 2021 Whatcom County Climate Action Plan

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

The Climate Impact Advisory Committee is excited to present the final draft update to the Whatcom County Climate Action Plan as required in Whatcom County Code 2.126.030. This Climate Action Plan represents several years of work by the committee including significant input and support from numerous members of the public as well as County staff. This final 2021 Whatcom County Climate Action Plan and accompanying resolution is presented to the County Council for review and adoption.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Resolution, 2021 Climate Action Plan



MEMORANDUM

TO: The Honorable Members of the Whatcom County Council
The Honorable Whatcom County Executive Satpal Sidhu

THROUGH: Jon Hutchings, Public Works Director
Gary S. Stoyka, Natural Resources Manager GSS

FROM: Chris Elder, Senior Watershed Management Planner CE

RE: 2021 Whatcom County Climate Action Plan

DATE: October 27, 2021

The Climate Impact Advisory Committee requests that Council approve the Climate Action Plan and the accompanying resolution to support implementation of the Climate Action Plan. The Committee has been working for the past several years to achieve the mandated task, as described in Whatcom County Code 2.126.030, of updating the County's Climate Action Plan. The committee held an open public review and comment period on the draft Climate Action Plan for the month of July and received numerous comments and suggested edits from members of the community. The committee presented a draft of the plan to Council on August 10, 2021 and received input from members of County Council as well as from staff and leadership within the administration. At the request of Council, a work session was held with Council on September 28, 2021 to review an updated draft and to receive additional input from Council. All comments received and suggested edits have been incorporated into the final Climate Action Plan. Upon approval, the administration looks forward to working with Council to implement the plan including submitting a mid-biennium budget request for a new climate action position.

Please contact Chris Elder at extension 6225, if you have any questions or concerns in advance of the discussion.

Encl.

One (1) document and one (1) resolution for review and adoption

- 2021 Whatcom County Climate Action Plan
- Resolution to adopt the 2021 Whatcom County Climate Action Plan

PROPOSED BY: _____

INTRODUCED: _____

RESOLUTION NO. _____

Adopting the 2021 Whatcom County Climate Action Plan

WHEREAS, the recent Intergovernmental Panel on Climate Change's 6th Assessment report found that climate change is already affecting nearly every part of the planet, human activities are unequivocally the cause, net zero emissions is required by mid-century to avert very costly and damaging climate impacts; and

WHEREAS, our 2017 greenhouse gas assessment (Whatcom County Greenhouse Gas Inventory 2017) showed that Whatcom County has a per capita greenhouse gas emission that is almost three times Washington state's per capita emissions; and

WHEREAS, Whatcom County's employment and economy are seriously threatened by climate change and the required energy transition and the County must be proactive in developing and attracting the clean energy jobs of the future; and

WHEREAS, The Whatcom County Council, through Ordinance No. 2017-080, has charged the Climate Impact Advisory Committee with the task of updating the County's Climate Action Plan every 5 years; and

WHEREAS, The Climate Impact Advisory Committee completed a Community Outreach effort in 2019, conducting over one hundred interviews with community stakeholders to determine strategies and actions needed in the updated Climate Action Plan; and

WHEREAS, members of the Climate Impact Advisory Committee 1) continued to seek advice from community experts over this last year and a half, 2) incorporated the latest climate science specific to Whatcom County (Whatcom County Climate Action Plan: Summary of Observed Trends and Projected Climate), and 3) followed recommendations from the Washington 2021 State Energy Strategy and sought advice and review from the authors of this plan; and

WHEREAS, the revised Whatcom County Climate Action Plan incorporates the climate targets passed by the 2020 State Legislature and is consistent with state and federal climate mitigation and adaptation approaches, thereby facilitating Whatcom County's ability to compete for state and federal grants; and

WHEREAS, as instructed by the County Council, the Climate Action Plan incorporates adaptation strategies and actions, that combined with greenhouse gas emissions reductions, will build climate resilience to avoid the worst impacts of rising temperatures on our economy, environment, and quality of life; and

WHEREAS, the Climate Action Plan acknowledges that low-income, BIPOC, and vulnerable communities within the County have and will continue to bear disproportionate impacts of climate change and that a just transition to a low-carbon future will require public investments that promote equity; and

WHEREAS, the Climate Action Plan acknowledges Whatcom County's obligation to honor and uphold tribal treaty rights, as guaranteed by the 1855 Treaty of Point Elliott

between the United States government and the Lummi Nation and the Nooksack Indian Tribe.

NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Council to commit Whatcom County leadership to:

1. Establish the Office of Climate Action with dedicated staff to ensure climate action that is transparent, equitable, urgent, and accountable to the Whatcom community.
2. Acknowledge, protect, and enhance the people's right to clean air, water, land, and food, and access to education, jobs, and shelter; and
3. Execute the 2021 Whatcom Climate Action Plan and work diligently to prioritize and incorporate key strategies and actions; and
4. Ensure that the County actions are rooted in equity and respect for the cultures and traditions of our diverse population; and
5. Act with urgency and intention to address the climate emergency and build climate resilience.

APPROVED this ____ day of _____, 20__.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

Approved Via Email-CQ/AK
Civil Deputy Prosecutor

Whatcom County Climate Action Plan

2021

A Note about our Land

The Whatcom County Climate Impact Advisory Committee respectfully submits this Climate Action Plan in acknowledgement that our County is built on the ancestral homelands and waterways of the Lummi and Nooksack, who have lived on, cared for, and protected these lands since time immemorial. Their culture, values, and teachings are intertwined in the waters, lands, and resources that sustain their life ways. We acknowledge the Tribes' treaty rights, as guaranteed by the 1855 Treaty of Point Elliott between the United States government and the Lummi Nation and the Nooksack Indian Tribe, and commit to honoring and upholding the Treaty as the supreme law of the land.

The Committee also recognizes that the historical and present-day rights and livelihoods of Native peoples are particularly relevant to climate action, as rising temperatures and other effects of a changing climate disproportionately threaten the well-being and prosperity of Native peoples. As we face the uncertain future of a changing climate and its effects on land, water, natural resources, economy, and livelihood, we stand committed to climate change mitigation and adaptation actions that will enable us to live and prosper together on this land.

Letter from the County Executive

Climate change presents two distinct and important challenges. The first is that the impacts of climate change are not manifested overnight. They are gradual – the recession of glaciers over the decades, the warming of waters in our creeks and declining salmon runs, the hotter and smokier summers. It is like the parable of the boiling of the frog, we don't see much difference from day to day, but it becomes clear that things are different when we take the perspective of several decades. This slow creep makes it difficult to convey the urgency of addressing climate change, both its causes and impacts. People are inclined to be more worried about the transitory problems of tomorrow than the big problems of the next decades and centuries. However, that's how we create legacy problems, such as superfund sites and urban sprawl, which are passed along to our children.

The second challenge is the fact that there is no single solution to climate change. It's going to require action across a very broad spectrum of areas and levels of government. This includes our transportation choices, how we manage land use and heavy industry, how we farm sustainably, rebuild connectivity in our watersheds and enhance forest health. We need to change our thinking and behavior in all of these areas and also to make significant investments. The enormous scope of the problem seems overwhelming, and it's too easy to sit back and say, "What can one county government do in the face of this global problem?" This sense of futility is not easy to overcome.

The proposed Climate Action Plan for Whatcom County addresses, in part, both of these challenges. First, it draws attention to the urgency of the situation and why we need to act today as responsible stewards of this beautiful corner of the world. It provides a compelling call to action. Second, it sets specific and attainable goals which are within the purview of county government. It outlines what actions should be taken, when and what they are going to achieve. It's a realistic roadmap and it will have tangible, positive impacts.

I am very appreciative of the Climate Impact Advisory Committee for their time and dedication over the past two years. Working with climate experts and County staff, they've created a plan that is supported by science, supported by community members and very much supported by me. I look forward to discussing it with County Council and staff as we prepare for its adoption and implementation.



Satpal Sidhu
Whatcom County Executive

Preface

The Climate Impact Advisory Committee was created in 2017 by the Whatcom County Council under Ordinance 2017-080, Whatcom Code Chapter 2.126. The Whatcom County Council established the goal of 100% renewable energy use within County operations and the larger Whatcom County community.

The Whatcom County Climate Impact Advisory Committee (CIAC) has been tasked with revising the County's Climate Action Plan (CAP) at a minimum of every five years. The CIAC is entirely composed of volunteers from our community who have spent many months researching, writing, and editing this Climate Action Plan. As requested by the County Council this plan provides recommendations for both reducing and/or mitigating greenhouse gas emissions and adapting to the inevitable changes occurring from climate disruption.

The recommendations in this Whatcom Climate Action Plan were informed by key background reports from Cascadia Consulting Group that included Whatcom Climate Trends and Projected Impacts, Whatcom County Greenhouse Gas Inventory 2017, and Vulnerability Assessments. In addition, the recommendations or strategies in this Climate Action Plan are aligned with the Washington 2021 State Energy Strategy.

The CIAC has also drawn heavily on the knowledge of stakeholders in Whatcom County. In 2019 volunteers from the CIAC and the local League of Women Voters interviewed over 120 community leaders and stakeholders in the County to ask them what they would like to see in a revised climate action plan. This Climate Action Plan incorporates many of the ideas from this early community outreach effort.

Additionally, numerous subject area experts in the community helped develop the recommendations and/or review draft content. The CIAC is grateful for the support it has received in compiling this report as well as the support from Whatcom County staff and the County Council during the development and publication of this Climate Action Plan.

Climate Impact Advisory Committee (CIAC) Members

2021 CIAC Members		2020 CIAC Contributors
William Bethel	Katherine Kissinger, <i>Secretary</i>	Treva Coe
Ginny Broadhurst	Ellyn Murphy, <i>Chair</i>	Casey Harman
Kaylee Galloway	Imran Sheikh	Hunter Hassig
Sue Gunn	Phil Thompson, <i>Vice Chair</i>	Cynthia Mitchell
Stevan Harrell	Eddy Ury	
David Kershner	Chris Elder, <i>Staff</i>	

Key Supporting Documents:

- [Whatcom County Climate Action Plan: Summary of Observed Trends and Projected Climate Change Impacts](#), prepared by Cascadia Consulting Group, January 2020 (website)
- [Whatcom County Greenhouse Gas Inventory 2017](#), prepared by Cascadia Consulting Group, July 2020.
- Vulnerability Assessments Toolkit, prepared by Cascadia Consulting Group, 2020

- [Washington 2021 State Energy Strategy](#), Transitioning to an Equitable Clean Energy Future, December 2020, prepared by the Washington Department of Commerce.
- [Community Research Project Report](#), 2019

List of Acronyms

Acronym	Full Name
<i>bp</i>	British Petroleum
°C	Degrees Celsius
CAT	Climate Action Team
CCA	2021 Climate Commitment Act
CEP	Conservation Easement Program
CCSU or CCS	Carbon Capture Storage and Utilization or Carbon Capture and Storage
CETA	Clean Energy Transformation Act
CIAC	Climate Impact Advisory Committee
CO ₂	Carbon Dioxide
CO ₂ e or MT CO ₂ e	Carbon Dioxide equivalent; metric tons of carbon dioxide equivalent
CoSMoS	Coastal Storm Modeling System
COVID-19	Coronavirus Disease of 2019
C-PACER	Commercial Property Assessed Clean Energy + Resiliency
DER or DERs	Distributed Energy Resources
DOE or USDOE	Department of Energy
DNR	Washington Department of Natural Resources
DR	Demand Response
E/VMT	Emissions per Vehicle Mile Traveled
EPA	Environmental Protection Agency
EV	Electric vehicle
°F	Degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FLIP	Floodplain Integrated Planning
GHG	Greenhouse Gas
ICE	Internal combustion engine
IPCC	Intergovernmental Panel on Climate Change
JCAT	Joint Climate Action Team
KWh	Kilowatt hour
LENS model	Lynden-Everson-Nooksack-Sumas model (surface/groundwater)
LOS	
MAC or MACC	Marginal Abatement Cost or Marginal Abatement Cost Curves
MT	Metric Tons
MW	Megawatt
NGO or NGOs	Non-Governmental Organization(s)
NO _x	Nitrogen Oxides
PACE	Property Assessed Clean Energy
pH	potential of Hydrogen

PDR	Purchase and Development Rights (now called Conservation Easement Program)
PNNL	Pacific Northwest National Laboratory
PSE	Puget Sound Energy
PUD1	Whatcom Public Utility District No 1
PV	Photovoltaics (solar)
SMP	Shoreline Management Program
SOV	Single Occupancy Vehicle
T&D	Transmission and Distribution
TDM	Transportation Demand Management
TOD	Transit-Oriented Development
UGA	Urban Growth Area
UTC	Utilities and Transportation Commission
VMT	Vehicle Miles Traveled
WCOG	Whatcom Council of Governments
WRIA	Water Resource Inventory Area
WTA	Whatcom Transportation Authority
WUI	Wildland/Urban Interfaces
WUTC	Washington Utilities and Transportation Commission

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Executive Summary

We write this executive summary soon after our County experienced a record-breaking 3-day heat wave that exceeded 100°F in many areas of the Pacific Northwest including Whatcom County. The effects of this heat wave are still being assessed, but it is estimated that a billion small sea creatures – including mussels, clams, and snails – died along the coastlines of the Salish Sea and 25 to 30% of the raspberry crop in Whatcom County was likely destroyed. In addition, the snowpack in the North Cascades, which was measured at 130% of normal in March, contained no available water by July 6th.

The recent heat wave in the Pacific Northwest is just the latest in a long list of similar extreme weather events becoming more commonplace around the world. Although we are often told that we cannot equate an individual weather event with climate change, 27 international climate scientists in the World Weather Attribution group have found that this heat wave could not have occurred if the planet had not already warmed by about 2°F. A sobering finding from their models was that this event, previously expected to occur about once in 1000 years, can be expected every 5 to 10 years within the next 20 years with continued warming. The rate of global warming is alarming and our climate models to date have frequently underpredicted the impacts because of this rapid pace of change.

Organization of the Climate Action Plan

This update of the 2007 Climate Action Plan was two years in the making and much of the writing was completed by a dedicated group of community volunteers who drew heavily on the knowledge of County staff and stakeholders in the County. These volunteers also spent untold time researching the science and the best approaches for reducing greenhouse gas (GHG) emissions and adapting to the inevitable warming and associated climate impacts that are currently occurring and will continue with or without action at every level of government.

This Climate Action Plan covers both the Built and Natural Environments in Whatcom County. Although the plan is long, it provides a detailed roadmap of the actions that need to be accomplished in order to avoid the most devastating impacts of climate change and do our part to meet state emission targets.

The organization of this Climate Action Plan is largely dictated by the way greenhouse gas emissions are assessed and reported in the Built Environment, by designated sectors. The strategic planning terminology of goals, strategies, and actions are used. A **Goal** is a statement of a policy objective that specifies the desired outcome by a specific date. **Strategies** are the approaches that are used to achieve a goal. **Actions** are documented events, tasks, or activities needed to fulfill a strategy.

The success of this action plan will ultimately be measured by 1) the reduction in GHG emissions that occurs over time, 2) an increase in ecosystem health, and 3) an increase in climate resilience. It is important to note, however, that many of these sectors and natural systems are interrelated, so coordination of the strategies and actions across these sectors and natural systems is critical. Increasingly, we will need to employ systems-level solutions to many of the challenges posed by climate change. We start this systems approach in this plan by combining electricity and buildings goals, strategies and actions, since a clean, modern grid is the core of decarbonizing the economy.

This plan is organized as follows with the primary authors listed in parentheses:

Section 1 – “Climate Change in Whatcom County” discusses climate impacts, terminology, our 2017 greenhouse gas assessment, recent State legislation, and the guiding principles for our strategies and actions. (Ellyn Murphy)

Section 2 - "The Built Environment" Electricity & Buildings (Cynthia Mitchell, David Hostetler, Ellyn Murphy), Industry (Sue Gunn), Transportation (Phil Thompson, Alec Howard), and Waste (Ellyn Murphy). These sectors represent the main sources of emissions, and we present solutions to reduce emissions.

Land Use (Kaylee Galloway) is also discussed in this section because three of the four strategies in land use concern the built environment.

Section 3 - "The Natural Environment" Water Resources and Fisheries (Chris Elder, Ellyn Murphy, Stevan Harrell), Agriculture (Stevan Harrell), Forestry (Ellyn Murphy, Chris Elder) and Ecosystems (Katherine Kissinger). This section discusses the impacts of climate change and how this collection of ecosystems can be part of the solution.

Section 4 - "Implementation" This section offers the best approach to coordinate and implement the strategies and actions in Sections 2 & 3 and provide accountability (Stevan Harrell). Good management oversight of climate actions includes community engagement, a stepwise process for defining individual projects, coordinating project execution, assessing outcomes, and adapting next steps based on current circumstances.

Section 5 - Appendix – A listing of technical contributors and reviewers and additional information on strategy implementation.

We would like to thank the numerous stakeholders in the community that participated in strategy development and reviewed sections and chapters of this report. Without their expertise and willingness to help, we could not have completed such a comprehensive plan and are grateful for their support. These participants are listed in the appendices for the various sectors covered in this report.

The Pathway to Climate Resilience

Our committee is in consensus that the most important recommendation to the Whatcom County Council and Executive is the necessity to establish an Office of Climate Action. This office would house staff dedicated to coordinating implementation of climate action efforts across multiple County departments and between other governmental agencies, providing critical information to County departments and the public, and promoting community engagement in projects that boost climate resilience. Without such an Office the County will miss multiple opportunities to implement the specific recommendations for climate mitigation and adaptation detailed in the following sections of this Report. Without an Office of Climate Action, the County will also miss the growing opportunities for funding from private, State and federal agencies, as well as opportunities to participate in the emerging clean fuel economy. The Office should be headed by a Senior Climate Advisor/Manager with wide knowledge of climate policy and science, in addition to experience in public service. The office should also include a data analyst/information specialist dedicated to providing and publicizing information relating to local climate and its effects, as well as monitoring the progress of our efforts toward mitigation and adaptation.

This Climate Action Plan closely follows the science and technology recommendations that are widely accepted by policy experts across the globe. Experts agree that the key to reducing greenhouse gas (GHG) emissions is the electrification of systems that currently use fossil fuels with clean electricity (defined as electricity that is generated without emissions). This is the only way we can reduce emissions rapidly in the next three decades. It is also clear that if we do not start immediately, this mountain of emissions will be too steep to climb. New technologies are rapidly evolving, and all levels of government need to continue to support research, development, and deployment, but we cannot wait for a silver bullet to save us. We must act now with the tools we have.

Electrification of buildings and transportation, combined with accelerated conversion to renewable sources of energy, could alone reduce emissions by 70 to 80% across the US and create a much healthier environment for our families, both indoors and out. Minor contributors to emissions such as gas stovetops and fireplaces are not the issue. Instead, we need to encourage a transition away from space and water heating with gas, a major source of CO₂ emissions in buildings. Washington's Clean Energy

Transformation Act puts utilities on the pathway of decarbonizing their electricity, achieving 100% clean electricity by 2045.

The State's 2021 Clean Fuel Standard legislation requires fuel suppliers to reduce the carbon intensity of their fuels 20% by 2038, and the 2021 Climate Commitment Act effectively imposes a cost on GHG emissions from burning fossil fuels. These actions will raise the cost of fossil fuels, creating greater incentives to buy electric vehicles, which have lower operating costs than gasoline-powered vehicles. Electric vehicle technology is accelerating so fast that many major car manufacturers will curtail production of gasoline-powered vehicles by 2035.

Providing the required amount of electricity for transportation will take major investments in infrastructure, from large-scale renewable energy installations to transmission capacity to EV charging locations. Collaboration and planning among governments, utilities, businesses, and communities will be essential. The 2021 Legislature directed the State Building Code Council to adopt codes for electric vehicle charging infrastructure at new residential buildings, and the Clean Fuel Standard legislation provides a mechanism for funding charging stations in underserved areas. The State also provides up to \$2,500 in sales tax rebates for electric vehicle purchases.

In addition to electrification of transportation, we need to greatly reduce the amount of single occupancy vehicle travel. Residents, businesses, municipalities, and the County should all work together to significantly expand interconnected multimodal transportation, especially non-motorized trails that are separated from busy and congested thoroughfares, to provide the public safe options for commuting.

Point-source emissions from industrial manufacturing processes are the County's largest source of emissions, contributing 51%--a fact we did not know until the greenhouse gas assessment for 2017 was completed in June 2020. The cap-and-trade system for greenhouse gas emissions in the 2021 Climate Commitment Act will effectively attach a cost to each ton of industrial GHG emissions and generate funding for uses such as industrial energy efficiency and affected worker assistance. Since the largest emission source for the state is transportation, the state, Whatcom County, and the refineries should work together on win-win solutions to reduce transportation-related GHG emissions while securing long-term economic benefits for the County. Our petroleum refining industry and its highly skilled workforce have the opportunity to become part of the statewide solution for reducing emissions through the production of low-carbon fuels and development of other clean energy sources. The State's Clean Fuel Standard will create a demand for alternative fuels such as biofuels and green hydrogen fuels.

The County's effort to restrict the growth in industrial emissions (i.e., Cherry Point Amendment) is a good example of using the County's authority over land use to address climate change. Climate smart land use practices can reduce GHG emissions and also help us better adapt to the inevitable changes that are already occurring. We view land use as the bridge or fulcrum that can balance emissions from the built environment with storage or sequestration of carbon in our natural environment. Changes in zoning codes and regulations are also an effective way to reduce the amount of single-occupancy vehicle transportation by requiring emphasis on density, giving commuters alternative transportation options in existing and new neighborhoods, and preservation of green spaces.

Climate smart land use can also increase climate resilience to drought, flooding and wildfires. For example, wetlands not only store large quantities of carbon, but are also a critical component of our overall hydrologic system for water storage, filtration of contaminants, habitat for many different plant and animal species, and as a collection point for flood waters. Likewise, preservation of estuaries protects against storm surge in coastal areas and is a critical link in the food chain for saltwater and freshwater species. Stronger codes and regulations in wildland-urban interface, in addition to the overall reduction in development potential in those areas, can reduce the frequency of wildfires and the resulting economic damage as well as enhancing the forestry economy.

The diverse and vast ecosystems in our forests, foothills, lowlands and flood plains can significantly increase carbon storage and build resilience to climate impacts. Climate adaptation efforts are essential so that our natural ecosystems can continue to thrive under a changing climate. When healthy and intact, natural systems can sequester and store large amounts of carbon. Adaptation to changing climate conditions will be extremely impactful on some ecosystems and will likely require significant help from us to maintain ecosystem health and build long term ecosystem resilience.

Climate impacts are nowhere more visible than on our water supply. Whatcom County faces the challenge of too much water in the winter and early spring, combined with too little water in the later summer and early fall. Continued increases in the frequency of flooding and drought are very visible signs of our changing climate. Over the last 150 years or more, development and land use changes have reduced the floodwater storage capacity of our river systems. In addition, natural water storage systems (snowpack, glaciers, and even our shallow groundwater aquifer) that would normally feed our river systems in late summer have been directly impacted by climate change or development or both. Projected future impacts indicate these changes will continue over time and will further exacerbate future water supply and availability issues.

Resolving uncertainty in our current and future water supply under climate change is the first step in understanding and dealing with this contentious issue. Restoring and protecting our streamflow levels and temperature to ensure year-round salmon migration and survival is the greatest climate challenge currently facing Whatcom County. Fortunately, there are many tools we can employ to adapt to climate change such as incentivizing efficiency in water consumption systems, rebuilding the connectivity of our fragmented hydrologic system, and protecting and enhancing estuarine, marine shoreline and coastal wetland habitats for fish and shellfish.

Agriculture can also play an important role in water use efficiency, increasing soil carbon storage, and also building food security and enhancing the local agriculture economy. Regenerative farming practices have been shown to enhance carbon storage, increase soil moisture, and reduce the amount of fertilizer needed. These practices can be economically incentivized by establishing a carbon market to reward farmers for increasing their soil carbon. The County also needs to change codes for renewable energy siting so farmers can benefit from the additional income generated from these installations.

Forested land in Whatcom County provides a significant sink for atmospheric carbon and needs to be actively managed for climate resilience and carbon storage while enhancing the forestry economy. A baseline for carbon sequestration by forests was recently established using information from 2000 to 2010. Our forests were found to sequester, on average, 4 million MT CO₂e per year, roughly equal to half of the emissions in the County. This important carbon sink should be monitored every 5 years as an indicator of forest health and land use changes. Revising Washington State Forest Practice Rules and Whatcom County development and land use codes will also be necessary to preserve our working forest lands, maintain our forest economy and reduce destruction from wildfires and disease.

Our local ecosystems provide clean water, clean air, soil productivity, water storage, flood control and many other services that are necessary for life on Earth. Climate change is occurring faster than our ecosystems can adapt therefore we must do everything we can to preserve and stabilize these systems. This includes revising land use codes based on current and future climate conditions, promoting community education on the importance of preserving ecosystems such as wetlands and wildlife corridors, and providing technical, logistical, and financial support for community organizations that are restoring and enhancing ecosystems. A long-term monitoring program of ecosystem health is also essential to track changes and progress over time and inform any needed improvements.

The longer we delay climate action, the more difficult and expensive it will be to preserve the natural systems that support life as we know it on Earth. The need to combat climate change and prevent

irreversible damage to our County and planet is urgent and we must rise to the challenge facing us, for our own sake and for that of future generations.

Guiding Principles for Prioritizing Climate Solutions

1. Act with Urgency, Intention, Transparency and Accountability. To address the existential climate crisis, aggressive reduction targets must be accompanied by demonstrated action, investments, and accountability.

2. Lead with Racial Equity, Social and Environmental Justice. Climate change disproportionately impacts communities of color and low-income communities, so the County must prioritize social justice and equity in investments that mitigate and adapt to climate change. The County must also honor Tribal treaties and sovereignty.

3. Respond to Community Needs and Economic Concerns. Community outreach, communication, and workshops are key to achieving climate resilience. The projected decline in fossil fuel use over the next few decades, in particular, will require the County to also focus and invest in creating job opportunities for our skilled workforce.

4. Establish Financial Incentives and Mechanisms. The initial cost of energy efficiency upgrades can be steep for homeowners and businesses. Many funding opportunities are currently provided by federal and state government and utilities for both the built and natural environments. Creative mechanisms for financing energy upgrades and restoring ecosystem health have been employed by communities and could be duplicated in Whatcom County.

5. Prioritize Health, Safety and Preparedness. Many of the impacts of extreme weather events directly impact health and safety and the County needs to develop dual-use resilience centers that can protect and shelter people during these events.

6. Increase County Leadership through Action Partnerships, and Influence. County efforts to combat climate change are largely invisible to Whatcom residents. Therefore, the County needs to establish an Office of Climate Action and hire a manager to coordinate and communicate efforts within County government and with other governments and entities. Outreach and advocacy at the local, regional, and state levels are critical.

7. Seek Cross-Cutting Systems-Level Solutions. There are many cross-cutting issues that impact multiple areas of the built and natural environments. In these cases, the County must employ a systems-level approach so that the solutions benefit multiple sectors.

8. Use the Best Available Science and Data Management Practices. Access to data is essential for planning, executing, and measuring the success of climate strategies and actions. Many organizations across the County, through science projects and routine field testing, collect data and information that is valuable for understanding trends in the built and natural environments. Yet, there is no centralized data management system for the County.

9. Support Research, Development and Demonstration Projects. Many available technologies that would reduce GHG emissions are not widely deployed and are unfamiliar to the public. Local demonstration projects are a very effective way to test new technologies locally and educate the general public and businesses on their advantages.

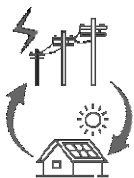
County Implementation



To accomplish climate resilience in Whatcom County through the many strategies and actions recommended by this plan, the County needs to establish and staff an Office of Climate Action.

- Establish an Office of Climate Action & Senior Climate Advisor who reports quarterly to the Executive and Council.
- Appoint an interim manager from within current County staff while pursuing funding to hire a permanent head of the office.
- Hire a data analyst/information specialist to begin compiling relevant climate data and making them available to staff and the community.

Electricity and Buildings



Electrification of buildings is one of the most important strategies for quickly reducing emissions, especially if electricity generation comes from clean, emissions free sources. Climate resilience occurs when buildings can operate at times without utility power & can provide services to the grid. In essence, buildings become grid assets to help manage the electricity load on the grid.

- Commit to net zero carbon emissions for government buildings & create resilience hubs for emergencies & community benefits.
- Accelerate deployment of distributed energy resources & broadband while ensuring equity & energy resilience.
- Develop an equity-based financing plan to expand energy efficiency upgrades and electrification of space and water heaters.
- Promote leadership at the state and county levels through support of climate legislation and demonstration projects that promote climate resilience.

Industry



Because industry is the largest GHG emitter in Whatcom County, rapid reductions in industry emissions are essential. The state, County and refineries need to work together to successfully transition to the production of clean fuels and ensure a strong long-term manufacturing base and the skilled jobs that come with it.

- Facilitate a solutions-focused collaboration with *bp's* Cherry Point plant manager and energy experts in academia, state, and federal governments to discuss ways to reduce 50% of refinery emissions by 2030.
- Promote the research, development, & collaboration needed to build a hydrogen electrolysis facility to create green hydrogen in Whatcom County.

Transportation



Transportation is already on a rapid pathway to decarbonization with the growing transition to EVs. The County can make this transition equitable with new programs, & updates in regulations and codes that accelerate EV charging infrastructure and provide multimodal transportation options for County residents.

- Accelerate adoption of EVs through pooled EV purchases, charging stations at all government buildings and parks, and building codes that promote EV charging at businesses and homes.
- Implement the regional trails plan for commuting and recreation and provide safe active transportation routes for schools.
- Explore and encourage electrification of buses throughout the county.

Waste



Waste is an expanding problem for disposal & consumer expense, but information on the magnitude of this problem is unavailable. Nevertheless, much can still be done through codes to reduce the amount of waste we generate and encourage recycling.

- Collect the necessary data through expanded audits to evaluate the success of existing programs & the benefit of new programs.
- Encourage the elimination of single use plastic containers & utensils.
- Expand the Food Recovery Program to add a food kitchen to reduce food waste.

Land Use



Land use zoning and codes are perhaps the most important tools that the County can use to mitigate emissions in industry, buildings, transportation, and waste. These tools also help us adapt to climate change and ultimately create climate resilience.

- Create a climate-resilient regulatory framework for new County development.
- Use regulations to enhance active & public transportation systems & infrastructure.
- Require a climate-focused risk assessment for all County infrastructure & private developments in climate impact zones.
- Protect ecological areas that provide climate resilience such as riparian areas, floodplains, shorelines, wetlands & migrations corridors.

Water Resources and Fisheries



No climate impact is as predominant as its effect on Whatcom's water resources and fisheries. Water availability also impacts agriculture, forestry and our important plant and animal ecosystems. It is currently the most important and contentious issue in the County. Fortunately, there are approaches we can employ now to help these important ecosystems adapt to climate change.

- Resolve uncertainty in current & future water supply under climate change.
- Restore and protect watersheds that enhance streamflow and reduce water temperature to ensure year-round salmon migration & survival.
- Incentivize efficiency upgrades to water consumption systems and new augmentation approaches.
- Rebuild connectivity of our fragmented hydrologic system to increase natural water storage on the landscape & reduce flood damage.
- Enhance estuarine, marine shoreline and coastal wetland habitats for fish and shellfish.

Agriculture



Farmers have long been recognized as stewards of our land and can play an important role in efforts to adapt to our changing climate. Low till or no till management practices increase soil carbon and moisture content. Irrigation efficiency and improved management of drainage can also enhance soil water storage. Development of heat- and drought- resistant crops will be essential under a changing climate.

- Promote adoption of climate smart farm management practices that maximize soil carbon storage and increase water and nutrient availability.
- Preserve a minimum of 100,000 acres of farmland for agriculture by rezoning the Rural Study Areas to Agricultural zoning.
- Reduce agriculture emissions & increase renewable energy, while providing farmers with new income opportunities.
- Promote use of climate research including drought- and heat-resistant crops.

Forestry



Our forests are an important part of our economy providing recreation, wood products, and cultural identity. We must adapt our decades old forest management practices to the drier and warmer conditions today and in the future or suffer the economic and health impacts of more wildfires and disease. This starts with measuring the health of our forests & adapting our forest practices to maximize health.

- Protect, enhance, & monitor carbon storage and sequestration in forest ecosystems through implementation of carbon credit projects and other mechanisms.
- Increase forest health, survival & climate resilience using improved forest management practices that reduce wildfire risk, increase soil moisture, streamflows, & preserve wildlife habitat.
- Promote climate resilient planning & programs to maintain our forest economy for recreation and wood products.
- Reduce development pressure on rural forestry and other forested lands through review of zoning code and increase acquisition of voluntary conservation easements

Ecosystems



Although many ecosystems are already covered above, this chapter emphasizes the crosscutting issues necessary to adapt to climate change that are common across natural environment systems. The common themes are community education, revising land use codes, financial support for restoration, and implementing a long-term monitoring system for ecosystem health.

- Develop and implement zoning regulations that protect wildlife climate migration corridors.
- Revise land use & development codes based on current & projected climate impacts to reduce damage & enhance resilience.
- Provide technical, logistical, and financial support for community efforts to restore & enhance ecosystems.
- Implement long-term monitoring to assess the impact of climate on ecosystem health.

SECTION 1 - CLIMATE CHANGE IN WHATCOM COUNTY

Much has changed since Whatcom County released the 2007 Climate Action Plan and the window of opportunity for avoiding the worst impacts of climate change has narrowed.

The climate crisis is like a slow-moving pandemic impacting the world's ecosystems, those systems upon which all life on earth depends to survive and thrive. There is no climate vaccine, but we have the tools to control the climate pandemic if we choose to use them.

Whatcom County's challenge is straightforward but by no means easy. To avoid irreversible damage to these natural systems, it is estimated that the global community needs to reduce greenhouse gas (GHG) emissions by about 7.6% every year until 2030 to meet the Paris target of no more than 2.7°F warming.¹ Today we live in a world where the global average temperature already has risen almost 2°F above pre-industrial levels.

The Intergovernmental Panel on Climate Change's (IPCC) latest findings² are alarming and paint a grim picture for the world and Whatcom County. Carbon dioxide (CO₂) concentrations in the atmosphere are at the highest level recorded in the last two million years. About 85% of CO₂ emissions are from burning fossil fuels and as we have recently experienced, extreme weather events are becoming more frequent and intense. Some climate-induced damage cannot be reversed within centuries or even millennia. Changes occurring to ice, oceans and sea levels will be irreversible for centuries and we can no longer rule out "tipping points" where a small change leads to a dramatic change. Earth's temperature will continue to increase until at least 2050 and we can only stay below 3.6°F (2°C) warming during this century if CO₂ emissions reach net-zero around or after 2050. In summary, the IPCC's 6th Assessment is alarming and should be a wakeup call for public action in Whatcom County.

Governments at all levels, many global corporations, and millions of private citizens are acting to reduce their GHG emissions. Many of the giants of US industry, such as Apple,³ Amazon,⁴ and Microsoft,⁵ which were built on science, have committed to net zero or net negative carbon by 2030. These are aggressive plans to decarbonize in a relatively short period of time. But this is what the scientific evidence and modeling tells us is needed.

All greenhouse gas emissions contribute to worldwide impacts from climate change, but only we can act locally to do our part in solving the problem.

In fact, utilities and fossil fuel companies are adapting – acknowledging that fossil assets such as coal-fired power plants are becoming cost inefficient to operate. Government policy shifts in favor of cleaner energy are hastening the stranding of some in-ground fossil fuel reserves. British Petroleum (*bp*) and

¹ Cut Global Emissions by 7.6% Every Year for Next Decade to Meet 1.5°C Paris Target – UN Report, Nov 26, 2019. <https://unfccc.int/news/cut-global-emissions-by-76-percent-every-year-for-next-decade-to-meet-15degc-paris-target-un-report#:~:text=Cut%20Global%20Emissions%20by%207.6,Paris%20Target%20%2D%20UN%20Report%20%7C%20UNFCCC>

² Climate Change 2021, The Physical Science Basis, IPCC 6th Assessment Report, <https://www.ipcc.ch/assessment-report/ar6/>

³ Apple commits to be 100% carbon neutral for its supply chain and products by 2030, July 21, 2020. <https://nr.apple.com/dE9n5d3o7T>

⁴ We are all in on The Climate Pledge: net zero carbon by 2040, June 23, 2020. <https://blog.aboutamazon.com/sustainability/we-are-all-in-on-the-climate-pledge-net-zero-carbon-by-2040>

⁵ Greene, Jay. "Microsoft pledges to remove more carbon than it produces by 2030," Jan 16, 2020, *The Washington Post*. <https://www.washingtonpost.com/technology/2020/01/16/microsoft-climate-change-pledge/>

Shell wrote off billions in such assets, citing Covid-19 and climate change.⁶ *bp* itself set a net zero carbon target for 2050⁷ and recently, went even farther and committed to reducing oil production by more than 40% by 2030 and emissions from refining by nearly 30%. In the next decade, *bp* plans to invest \$50 billion in renewable energy.⁸ How these reductions and/or investments will impact Whatcom County, home to two large refineries, is still unknown.

Fortunately, we already have the cost competitive technology needed to reverse our current climate trajectory.⁹ Just as we mobilized the entire US economy to win World War II, we can do the same today with significantly smaller shifts in economic activity.⁸ The renewable energy sector has become a major US employer with over 3 million workers and outnumbers fossil fuel workers by 3-to-1.^{10,11} One recent estimate suggests that as many as 15 to 20 million jobs would be created over the next decade through a serious decarbonization effort.¹²

Seventy to 80% of US carbon emissions could be eliminated by 2035 using the following five commercially available technologies: wind and solar power plants, rooftop solar, electric vehicles, heat pumps, and batteries (Fig. 1.1).⁸ Eliminating fossil fuels in the electricity system and widespread use of EVs would address more than 70% of total emissions. It's time to get started.

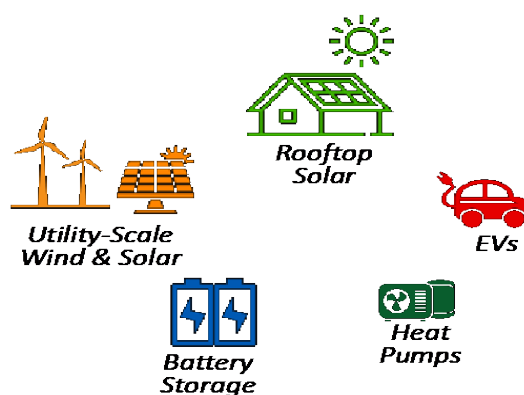


Figure 1.1. Five available technologies to reduce carbon emissions by 70 to 80%.

⁶ Kuznets, Nicholas. "BP and Shell Write Off Billions in Assets, Citing Covid-19 and Climate Change." *Inside Climate News*, July 2, 2020. <https://insideclimatenews.org/news/01072020/bp-shell-coronavirus-climate-change>

⁷ Ambrose, Jillian. "bp sets net zero carbon target for 2050," Feb 12, 2020, *The Guardian*. <https://www.theguardian.com/business/2020/feb/12/bp-sets-net-zero-carbon-target-for-2050>

⁸ Blackmon, David. "bp Commits Big Investments Toward Its 'Net Zero Emissions by 2050'" Target, *Forbes*. <https://www.forbes.com/sites/davidblackmon/2020/08/04/bp-commits-big-investments-towards-its-net-zero-emissions-by-2050-target/#18662c8c2003>.

⁹ Roberts, David. "How to drive fossil fuels out of the US economy, quickly" Vox. <https://www.vox.com/energy-and-environment/21349200/climate-change-fossil-fuels-rewiring-america-electrify>

¹⁰ McGinn, Anna. "Fact Sheet – Jobs in Renewable Energy, Energy Efficiency, and Resilience" (2019) Environmental and Energy Study Institute. <https://www.eesi.org/papers/view/fact-sheet-jobs-in-renewable-energy-energy-efficiency-and-resilience-2019#3>

¹¹ Marcacci, Silvio. "Renewable Energy Job Boom Creates Economic Opportunity as Coal Industry Slumps," Apr 22, 2019. *Forbes*, <https://www.forbes.com/sites/energyinnovation/2019/04/22/renewable-energy-job-boom-creating-economic-opportunity-as-coal-industry-slumps/#4127763e3665>

¹² Griffith, Saul, founder and chief scientist of Otherlab (otherlab.com); co-founder of Rewiring America <https://www.rewiringamerica.org/>

Important Climate Concepts

GHG emissions are anthropogenically-produced heat-trapping gases in the atmosphere that result in global warming. The impacts of these emissions are dependent on where you live, even where you live in Whatcom County. For example, if you live on the coast, sea level rise and storm surge are a concern; if you live near the Nooksack River, flood intensity and frequency are a concern; and if you live in a wooded area, wildfires are a concern. Whatcom County must do its part to reduce emissions while addressing the impacts already occurring at the County level.

Greenhouse gas emissions are reported in metric tons, MT, “carbon dioxide equivalents,” written CO₂e. This reflects that there are additional GHGs, such as methane and nitrous oxide that are important. Expressing these gases as carbon dioxide equivalents allows for more valid comparisons.

A **GHG assessment** is a detailed inventory of the GHGs released to the atmosphere during a given year. This assessment is divided into the major categories of GHG sources. **ClearPath**, a leading online software platform, was used for this report. ClearPath adheres to international protocols for GHG assessments and is available through Whatcom County’s membership in Local Governments for Sustainability.

Climate resilience is our ultimate goal (Fig. 1.2) in planning for, and responding to, climate change. Resilience is “the capacity of a system, be it a person, a forest, a city or an economy, to deal with change and continue to function.”¹³ Resilience is especially important given the uncertainty about the timing and magnitude of climate change impacts. In advocating for climate resilience, we acknowledge that change will continue to occur, and when it does, our built and natural systems can recover with proper planning and policy decisions.

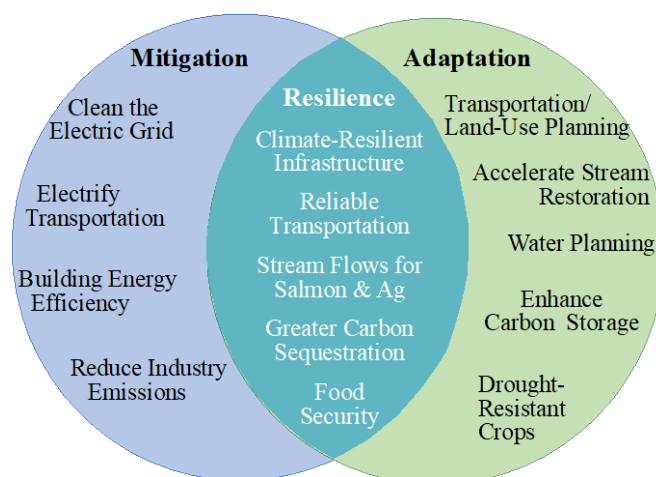


Figure 1.2. Climate resilience relies on implementing both mitigation and adaptation strategies.

Actions to combat climate change and its effects fall into two broad categories in this Climate Action Plan. **Mitigation** is the avoidance, reduction (and when possible, the total elimination) of heat-trapping emissions usually associated with human activity. **Adaptation** is altering human behavior and/or systems to reduce or avoid the climate change impacts likely to occur despite any mitigation. Climate resilience requires both mitigation and adaptation. This Plan’s climate adaptation strategies focus on these more localized effects in Whatcom County.

The content of this revised climate action plan has necessarily evolved since the 2007 Whatcom County Climate Action Plan.¹⁴ Nearly 15 years have passed with increasing impacts and damage of climate

¹³ “Resilience is the New Sustainability,” March 25, 2019, *HydroPoint*. <https://www.hydpoint.com/blog/resilience-is-the-new-sustainability/>

¹⁴ Whatcom County Climate Protection and Energy Conservation Action Plan, September, 2007. <https://whatcomcounty.us/DocumentCenter/View/36617/Whatcom-County-2007-Climate-Protection-and-Energy-Plan>

change requiring more adaptation coupled with mitigation. Economic and environmental impacts of climate change will inevitably worsen without more ambitious action at every level of government.

Climate vulnerability assessments are used to rate the susceptibility of a natural or human system to damage from climate change. Vulnerability is a function of exposure, sensitivity, and adaptive capacity. Vulnerability assessments were completed for transportation, land use and agriculture, freshwater, and ecosystems and species and are discussed in more detail under those topic areas in this report.

While the vulnerability ratings tend to be qualitative in nature, the underlying technical data demonstrates that the County government and its residents are facing severe and costly climate-related impacts. Adaptation planning and investment can avert much of the economic toll. Climate strategies and actions are designed to minimize disruption of Whatcom County's economy and environment, while increasing community resilience and improving long-term economic and public health. However, to succeed, the County will need to devote substantial resources now to avoid much higher climate-related costs down the road.

This updated Climate Action Plan reviews the current and projected climate impacts for Whatcom County and provides a roadmap of strategies and actions that are necessary to avoid or alleviate the most devastating impacts of climate change.

Observed Trends and Projected Impacts in Whatcom County

Cascadia Consulting Group's full climate science summary for Whatcom County is briefly summarized here.¹⁵

Temperature

- By the 2050s, the average year in Washington will likely be warmer than the hottest year of the 1900s.
- By the 2050s, average annual temperatures in Puget Sound are projected to increase by 4.2 °F to 5.5 °F under low- and high-emissions scenarios, respectively. By 2100, they are projected to be 5.5 °F to 9.1 °F warmer.
- Heat waves have increased in frequency every decade since the 1960s and are projected to continue to do so.¹⁶

Precipitation

- Average annual precipitation in Puget Sound is projected to increase by 4% to 5% by the 2050s under low- and high-emissions scenarios, respectively, and another 2% by the 2080s under both emissions scenarios.
- Wetter conditions are anticipated in spring, fall, and winter, while summer will likely continue to get drier and warmer in Puget Sound. By the 2050s, summer precipitation is projected to decrease by 50% under a high-emissions scenario.

¹⁵ Whatcom County Climate Action Plan: Summary of Observed Trends and Projected Climate Change Impacts.

<https://www.whatcomcounty.us/DocumentCenter/View/53837/Whatcom-County-Climate-Science-Summary-2020?bidid=>

¹⁶ Climate Change Indicators: Heat Waves. <https://www.epa.gov/climate-indicators/climate-change-indicators-heat-waves>

- Under a high-emissions scenario, heavy precipitation events west of the Cascades are projected to increase in intensity by 22% by the 2080s—meaning events will bring 22% more rain and a higher frequency.

Hydrology

- Mountains draining into Puget Sound are projected to have 29% less snowpack by the 2040s.
- By the 2040s, 40 miles of the Nooksack River basin will exceed the thermal tolerance of adult salmon, compared to zero miles currently.¹⁷
- The Nooksack River basin is anticipated to transition from being a mixed snow and rain-dominant system to a rain-dominant system in the future. By the 2080s, peak streamflow in the Nooksack River is projected to shift approximately 27 days earlier in the year.
- Flooding in the Nooksack River is expected to become more intense and frequent. Under a moderate emissions scenario, streamflow in the Nooksack River during a 100-year flood event is projected to increase by 27% by the 2080s.
- Under a moderate emissions scenario, summer minimum streamflow in the Nooksack River is projected to decrease by 27% by the 2080s.

Sea Level Rise and Storm Surge

- By 2100, relative sea level rise in the Bellingham area is projected to be between 1.5 and 1.9 feet with a 50% likelihood of exceeding those values.
- Puget Sound coastlines, including Whatcom County, are expected to experience increased storm surge and high tide flooding due to sea level rise.

Wildfire

- By the 2050s, Western Washington is projected to have 12 more days per year with very high fire danger.
- By 2100, the time period between wildfires in the North Cascade ecoregion will shorten by a factor of 2.2 to 2.5.
- The median area burned annually from wildfire across the Northwest is projected to increase by 0.6 million hectares (1,482,000 acres) by the 2080s.

Air Quality

- In the future, Whatcom County's air quality is likely to decline during periods of increased wildfire activity in the Pacific Northwest, especially during the summer and early fall.
- Warmer temperatures and increases in ozone pollution may reduce Whatcom County's air quality and can affect sensitive vegetation and ecosystems.

¹⁷ Floodplain by Design and The Nature Conservancy, 2018. Climate Change in the Nooksack River: A quick reference guide for local decision-makers: <https://cig.uw.edu/our-work/decision-support/floodplains-by-design/>

Whatcom County Greenhouse Gas Challenge

Largely because of the industries at Cherry Point, Whatcom County emits almost triple the GHG per capita compared to the state as a whole. We have 3% of the state's population but generate almost 8% of its greenhouse gases. Even if we leave the industrial emissions aside, our per capita emissions are still 30% higher than the state average, because well over half our electricity is generated from fossil fuels.

Whatcom County's per capita emissions, 35 MT CO₂e/person, are almost three times the state-wide per capita emissions of 13 MT CO₂e/person.

Communitywide Emissions

Overall, our communitywide emissions grew 35% between the 2001 inventory that was the basis of the 2007 Climate Action Plan and the 2017 GHG assessment we use here, while population grew only 27% during that interval (Table 1). Because of our high emission rates, a rapid transition to clean energy here is imperative. It is a crucial element in the state's effort to cut statewide emissions of GHG in half by 2030 and requires Whatcom's rapid transition to a clean energy economy.

Table 1. Total Communitywide GHG emissions and County government emissions for 2000-2001 and 2017.¹⁸ Emissions are reported in MT of carbon dioxide equivalent (MT CO₂e). FTE is Full Time Equivalent.

Communitywide Inventory	2001	2017	% Change
Population	170,980	216,300	+27%
Residential Households	75,740	96,271	+27%
Total Emissions	2,750,728	7,583,578	+176%
Total Emissions (without Industrial point source emissions)	2,750,728	3,721,230	+35%
County Government Inventory	2000	2017	% Change
County Staff FTE's	759	813	+7%
County Government Total Emissions	10,318	9,950	-4%

Our communitywide distribution of GHG emissions is very different when compared to statewide emissions. The categories in Figure 1.3 were previously established by the State Department of Ecology. Transportation is the largest emitter of GHGs in Washington State, followed by burning fossil fuels (principally natural gas) for buildings and water heating. The third category of emissions results from electricity generated by fossil fuels, biomass, and waste. The fourth category is somewhat of a catch-all, including industrial point source, waste, and agriculture.

In Whatcom County, industrial emissions from manufacturing processes, categorized as point source emissions, constitute 51% of this combined category of industry, waste and agriculture that together represents over half of Whatcom's GHG emissions. GHG emissions from electricity generation is the

¹⁸ Whatcom County Greenhouse Gas Inventory 2017, prepared in 2020 by Cascadia Consulting Group:
https://www.whatcomcounty.us/DocumentCenter/View/48029/WhatcomCountyGHGInventory_DRAFT_June2020

second highest category in Whatcom County because almost 60% of our electricity is generated using fossil fuels.

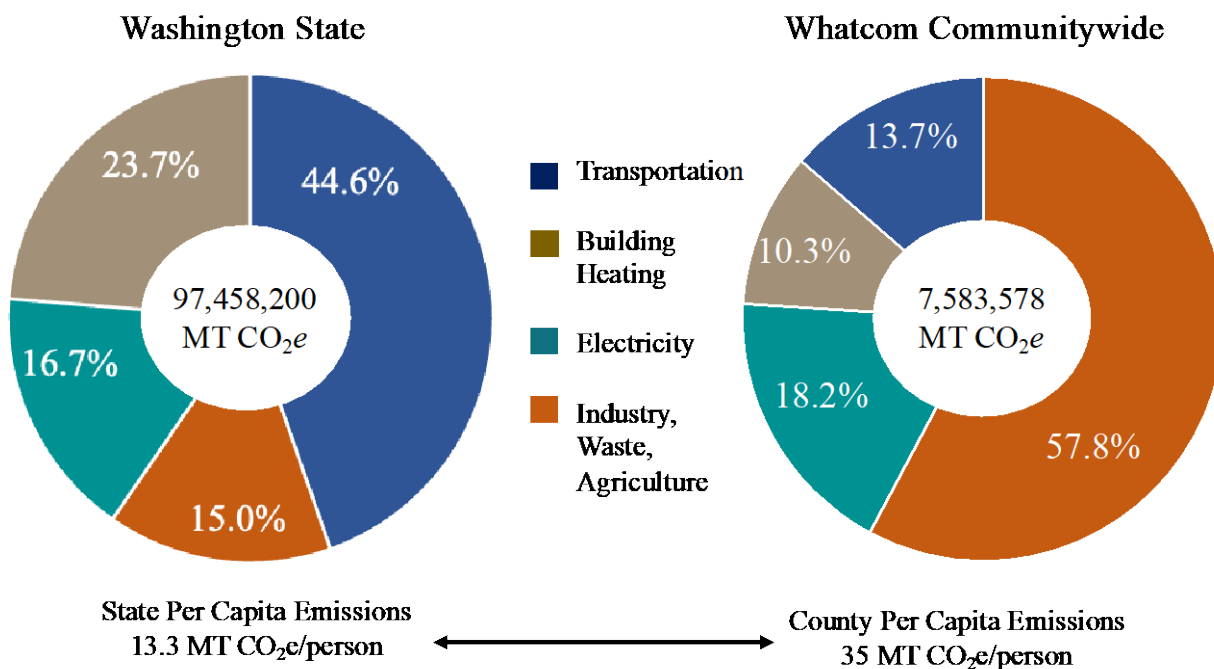


Figure 1.3: A comparison of 2017 statewide and Whatcom communitywide GHG emissions. Building Heating includes all residential, commercial, and industrial buildings use of fossil fuels for heating buildings and water (does not include heating by electricity). The state adds fugitive emissions from refrigerants to the Industry, Waste, Agriculture category, while ClearPath includes these fugitive emissions with Buildings.

These simplified categories help explain the state’s basic energy strategy – electrify all possible end uses in the transportation, space and water heating, and industry sectors and eliminate fossil fuels from electricity generation. At the same time, electrification is not enough unless we decarbonize the grid itself. Removing fossil fuels from the electric grid is the focus of the 2019 Clean Energy Transformation Act (CETA). Here in Whatcom County, electrification of buildings and transportation, decarbonization of the grid and severely reducing industrial emissions, are thus the three legs of our climate mitigation actions that will be explained in the following sections of this Climate Action Plan.

The 2021 Washington State Energy Strategy provides an overarching roadmap to guide reduction of sector emissions where city and county governments have influence. In developing climate strategies, the CIAC is aware that there are areas where the County has direct control and areas where the County has indirect influence. The strategies and recommendations in this report will follow, where possible, the state energy strategies and policies.

County Government Operations Emissions. The Whatcom government operation’s GHG emissions in 2017 show a slight decline from 2000 (Table 1). Like the communitywide emissions for Whatcom, the approaches for data collection and evaluation have changed, making it difficult to derive any insights from this trend. For example, in 2007 it was assumed that carbon dioxide was trapped in landfill waste, leading to no or negative emissions. In contrast, the 2017 GHG inventory includes emissions from waste

generation and emissions from closed landfills within Whatcom County (Fig 1.4), comprising almost a fifth of the overall government operations emissions.

Some information is available on the implementation of recommendations in the 2007 Climate Action Plan for the County's government operations. One recommendation was to hire a staff member to coordinate the climate strategies, a position that was eliminated during the 2009 economic recession and never replaced. Another recommendation to purchase renewable energy for all County buildings through PSE's Green Direct Program was only fully instituted in 2019.

County purchases of hybrid vehicles and improvements in facilities energy efficiencies since 2007 are reflected in the 2017 GHG inventory, but no evaluation has been done by the County on cost and energy savings from these upgrades. Finally, although the County continues to support "SMARTrips," a program to encourage reduction in staff vehicle miles traveled, there is no data to indicate that the program has changed overall staff commute behavior. Only 10% of County staff participated in this program in 2019. So, the decline in staff commute emissions may be due to any number of factors including the method of data collection, higher fuel efficiency of vehicles, more staff living closer to work, or other factors.

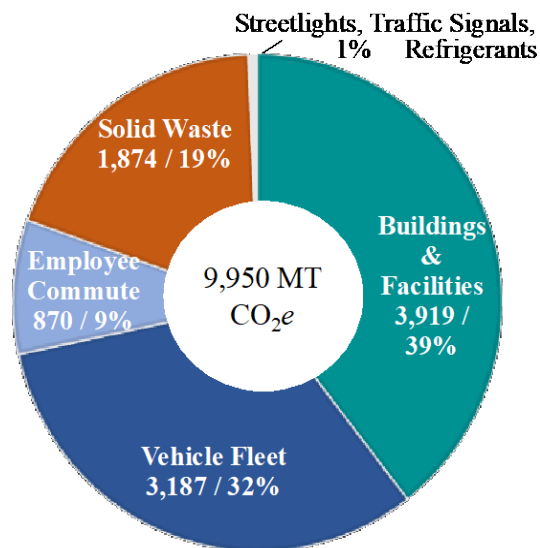


Figure 1.4: 2017 Whatcom Government Operations Emissions (in MT CO₂e)

Comparison with the Most Recent GHG Assessment.

The last time Whatcom County did a GHG inventory was in 2006 and the assessment was based on calendar years 2000 and 2001 (Table 1). This inventory was the basis of the first Whatcom County Climate Action Plan (CAP) published in 2007. As stated previously, the actual trends in GHG emissions are difficult to interpret because methods of data collection and analysis have changed over this long time period. Ideally, these inventories need to be done every five years to make valid comparisons and measure the effectiveness of mitigation and adaptation strategies.

The significant increase in communitywide GHG emissions in 2017 is because the earlier report did not include industrial point-source emissions from two large petroleum refineries (~3 million MTCO₂e) and aluminum production (~1 million MTCO₂e) at Cherry Point. This industrial emissions information was not available in 2007.

Even if industry point source emissions were excluded, GHG emissions in Whatcom County still increased at a greater rate than population growth. Any number of reasons or combinations of reasons could account for this increase but evaluating trends or the effectiveness of strategies and actions in the 2007 Climate Action Plan is problematic for the following reasons:

- The model used for the 2000-2001 inventory was a precursor to the current ClearPath model and less sophisticated.

- Methodologies for collecting data have changed. Data source and collection process are not uniformly documented in the 2000-2001 inventory.
- Information that was not available in 2006, is now available for the 2017 GHG emissions inventory.
- A significant lack of history and data on the implementation of climate recommendations due to County staff employment turnover.

Overall, our high emission rates call for a rapid transition to clean energy in Whatcom County, in tandem with the state's effort to cut statewide emissions of GHG in half by 2030. Transportation is the state's largest emitter, while industrial point source emissions from refineries is the County's, creating a strong rationale for the two levels of government to work together.

GHG Emissions Targets

In order to meet the 100% renewable energy goal established in Whatcom County Ordinance 2017-080¹⁹ and to analyze strategies for GHG reductions, the CIAC proposes the following timelines for communitywide and County government emissions reductions (Fig. 1.5):

Communitywide (Whatcom County) Targets:

- A 45% reduction below 1990 levels by 2030
- A 95% reduction below 1990 levels and net zero emissions by 2050

County Government Targets:

- An 85% reduction below 2000 levels by 2030
- A 100% reduction below 2000 levels by 2050

In March 2020, the Washington Legislature modified state GHG emissions limits based on current climate science. This law sets a goal of reducing state-wide emissions by 45% below 1990 levels by 2030 and 95% below 1990 levels by 2050, with net zero emissions achieved by mid-century.

The Communitywide targets for the County are simply the same GHG emissions targets set by the State of Washington. The County government targets are more aggressive to demonstrate leadership and are consistent with GHG targets established by the City of Bellingham, including an 85% reduction below 2000 levels by 2030 to 1,500 MTCO₂e or a reduction of ~8,400 MTCO₂e. These estimated reductions do not include the County's participation in PSE's Green Direct wind energy program that started in mid-2019.

The United States has a moral responsibility to reduce emissions because our country has contributed more to anthropogenic climate change than any other country; nearly twice as much as China and about eight times as much as India.²⁰

Based on County Council guidance, the CIAC will be updating the GHG inventory and Climate Action Plan every five years, making future comparisons of progress feasible.

¹⁹ <https://www.whatcomcounty.us/Archive/ViewFile/Item/14045>

²⁰ <https://lb-aps-frontend.statista.com/statistics/723163/g20-carbon-dioxide-emissions/>

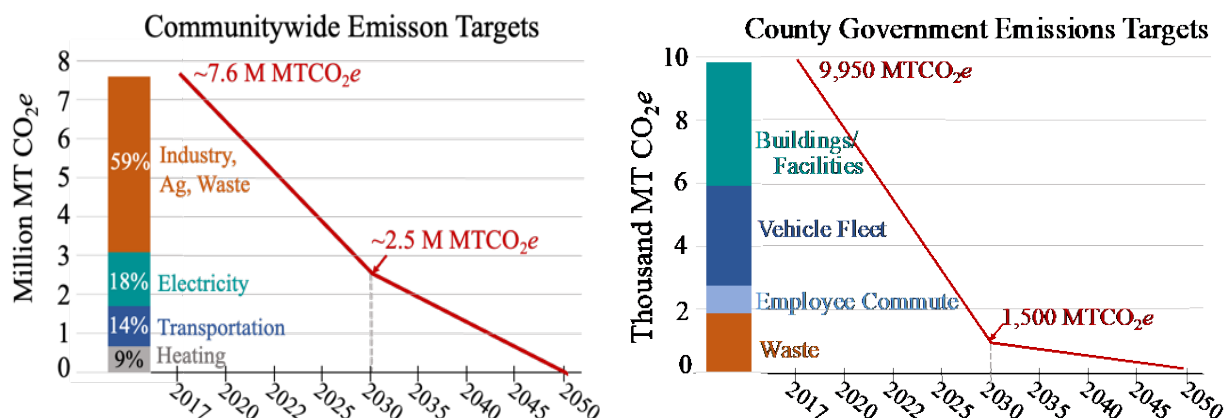


Figure 1.5: Communitywide emissions targets and County government emissions targets

Recent Washington Climate Legislation

Whatcom County's GHG targets are daunting and will be a significant challenge. However, the Washington State government has enacted legislation that will make it easier for our community to meet these aggressive targets. Two very important pieces of legislation were passed by the Washington State Legislature and signed into law by Governor Inslee in 2021. Both the [Climate Commitment Act \(SB5126\)](#) and the [transportation fuel carbon intensity bill \(HB1091\)](#) use variations of a cap and trade approach to set a price on the carbon content of energy used in Washington State.

Generally speaking, under cap-and-trade regulation an overall cap on emissions is set and allowances equal to the emissions cap are issued, which can then be traded among participants. The market price of the allowances becomes the price of emitting another unit of the pollutant, with emitters who can lower their emissions at a relatively low cost will do so and sell their extra allowances to emitters who face high emissions reduction costs. The result is that emissions are reduced to the desired limit—the “cap”—at the lowest possible cost of doing so through allowance “trading.” This approach also provides incentives for emitters to discover better and cheaper ways to achieve the desired emission reductions. An important feature of cap and trade is that limits are not placed on individual emitters or even (usually) on economic sectors—reductions are undertaken primarily by those emitters with the lowest reduction costs, regardless of their industry or location.²¹ Existing examples of cap and trade systems for carbon emissions include the [California-Quebec](#) market, the [Regional Greenhouse Gas Initiative](#) in the eastern U.S., and the European Union's [Emission Trading System](#).

The most important feature of these bills is that the caps (reduced gradually over the next twenty to thirty years) are effectively placed on carbon emissions consistent with emissions reductions goals set out in [RCW 70A.45.020](#), on which the reduction goals in this action plan are based. One result is to increase the cost of carbon-emitting activities thereby discouraging them. But the legislation goes beyond requiring a price on carbon emissions. Revenues collected through the sale of allowances (in SB 5126) or carbon intensity credits (HB1091) are earmarked for a variety of possible programs and projects to reduce carbon emissions, increase carbon sequestration, and improve environmental

²¹ There are dozens of references that explain cap and trade in more detail; a basic one is provided by the [Environmental Defense Fund](#)

resilience to the impacts of climate change, all while lessening the climate impacts on overburdened or low-income communities and of the policies designed to reduce those impacts.

Both of these bills call for a series of rulemakings to be conducted by state agencies, which will yield the detailed regulations implementing the legislation. HB1091 is targeted almost entirely at transportation fuels, but SB5126 caps emissions from nearly all sectors for the entire state, which makes it difficult to predict the extent of reductions that will occur within specific sectors in a single county. Both bills will use revenues they generate to fund programs in all economic sectors. Emissions related transportation projects are first in line for funding under SB5126, but the remainder of expenditures will occur across sectors through the climate commitment account, including funding the working families tax rebate, the deployment of renewable energy and grid modernization, increasing industrial energy efficiency, increasing energy efficiency in and the electrification of buildings, assisting workers who lose jobs in fossil fuel related industries, and carbon sequestration projects. SB5126 also establishes a natural climate solutions account, which will fund projects promoting climate resilience and adaptation through flood programs, healthy forests, and natural carbon sequestration.²²

Guiding Principles for Advancing Climate Resilience

Ultimately, this Climate Action Plan should protect the County’s citizens, businesses, environment, and governments from the detrimental impacts of climate change by achieving optimal climate resilience. This Climate Action Plan (CAP) provides guidance on how the County can achieve climate resilience to ensure long-term economic and social prosperity.

The CIAC’s role is to recommend strategies based on commercially available technology that will lead to the greatest reductions in GHG emissions and address the natural and human-built systems that support life and are at greatest risk of damage from climate disruption.

To enhance climate resilience the following guiding principles should be considered when prioritizing strategies and investments.²³

1. Act with Urgency, Intention, Transparency, and Accountability. The far-reaching consequences of climate change dictate that we can no longer wait to take bold action. We must also accept the fact that actions taken today won’t bear fruit for at least a few years. Many local governments within the County, as well as the County government itself, have not focused enough on the contribution of climate change to storm surge, flooding, salmon survival, or air quality. To address this existential crisis, aggressive emission reduction targets must be accompanied by

Guiding Principles

- 1. Act with Urgency, Intention, Transparency and Accountability*
- 2. Lead with Racial Equity, Social & Environmental Justice*
- 3. Respond to Community Needs and Economic Concerns*
- 4. Establish Financial Incentives and Mechanisms*
- 5. Prioritize Health, Safety and Preparedness*
- 6. Increase County Leadership through Action, Partnerships, and Influence*
- 7. Seek Cross-Cutting Systems-Level Solutions*
- 8. Use the Best Available Science and Data Management Practices*
- 9. Support Research, Development & Demonstration Projects*

²² See Sections (26) – (31) of [SB5162](#) for more detail on funding possibilities for county and local governments.

²³ 2020 Strategic Climate Action Plan, King County, WA.

demonstrated action, investments, and accountability. To ensure our efforts are effective we must act with transparency and accountability. The County will need to make data widely available to the public and adhere to broadly accepted standards.

2. Lead with Racial Equity and Social and Environmental Justice. The long-term health and wealth of low-income communities, especially communities of color, have been disproportionately impacted by pollution from manufacturing, agriculture, and transportation, including the production, transport, and use of fossil fuels.²⁴ These historic inequities are aggravated by climate change, which is also disproportionately burdening people of color, both in the US and abroad. In Whatcom County, agriculture is a large sector of the economy and people of color represent a large percentage of the agricultural workforce, making people of color disproportionately vulnerable to crop damage and extreme heat events associated with climate change.

Many factors increase sensitivity to climate change, with systemic racism and economic inequality being two root causes (Fig. 1.6). Local, state, and federal governments have a responsibility to address these inequities when

making climate policies. Proposed actions to mitigate climate change can either increase injustice in society or reduce it. The tools we use are important. Funding for climate stabilization needs to be progressive rather than regressive and increase equity for historically marginalized communities. To promote social and environmental justice, this plan seeks to reverse injustices of the past and create a healthier future for all County residents.

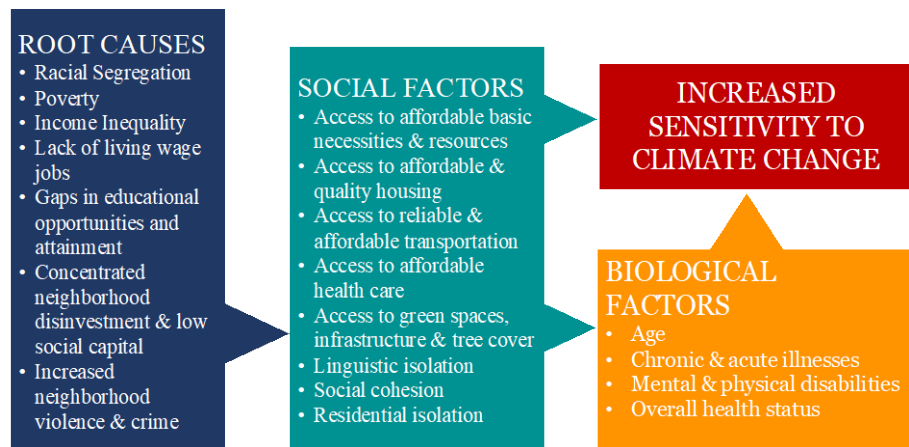


Figure 1.6: Root causes of climate change vulnerability, from Urban Sustainability Network Directors Guide to Equitable, Community-driven

In Whatcom County we must also **honor Tribal treaties and sovereignty**. The County needs to remain committed to our government-to-government relationship with our sovereign tribal nations when implementing climate recommendations in this plan. For example, Cherry Point is acknowledged as the ancestral homelands of the Lummi Nation, which has historic burial grounds located in the heart of this industrial zone. Cherry Point also holds traditional reef net fishing areas as well as harvesting for salmon and crab. The County needs to continue honoring Tribal treaty rights when preserving critical habitats and fully recognize land, water, and resource rights, and protect cultural sites.

3. Respond to Community Needs and Economic Concerns. To develop the background information needed to prepare this CAP, the CIAC began community outreach and engagement in 2019 with the Community Research Project. The stakeholders interviewed represented utilities and industries,

²⁴ <https://www.pugetsoundsage.org/true-cost-of-fossil-fuel-use-for-communities-of-color/>

individual business owners such as farmers and fishers, city, county, state, and federal staff, tribal leaders, and representatives of nonprofits. To create a viable and enduring climate action plan, it will be critical for County staff to do additional community outreach and communication.

The financial risk associated with such effects of climate change as coastal and river flooding and wildfires could be substantial for the County, putting a strain on our emergency, public health, and many other County services. Modeling efforts have shown that what have in the past been considered 100-year floods of the Nooksack River will eventually occur every 10 years.²⁵

"It doesn't matter if you believe in climate change; your insurance company does. The realities of that are going to be reflected moving forward." Nick VinZant as quoted in the Washington Post, Oct 2, 2021.

Sea-level rise and coastal storm surge intensify river flooding by causing a restriction or "backup" in the Nooksack River flow. Water continues to flow down rivers but meet a rising tide causing it to back up and/or spread out as it spills over levees and dikes (Fig. 1.7).²⁶

Climate change also increases the risk of wildfires, which can be especially frequent in wildland/urban interfaces (WUI). Seventy to 90% of all wildfires are human caused.²⁷

Potential financial risks can be reduced

if the County incorporates the likely impacts of climate change in every aspect of planning, whether it is critical infrastructure, such as roads, bridges or ferries, new developments, or even planning associated with emergency services and response. For example, the shoreline development plan can no longer ignore climate change. The County must consider damage from sea level rise and storm surge over the next few decades prior to approving coastal developments and associated road access. Taxpayers will ultimately pay for poor decisions made today or delays in needed action. Smart land use planning can be an effective tool for reducing financial risk to the County government and the community at large from the pain of property loss and relocation.

Whatcom County's economy is in a relatively difficult position as the world pushes to decarbonize. Major investors around the world are starting to divest from fossil fuel companies. As home to two

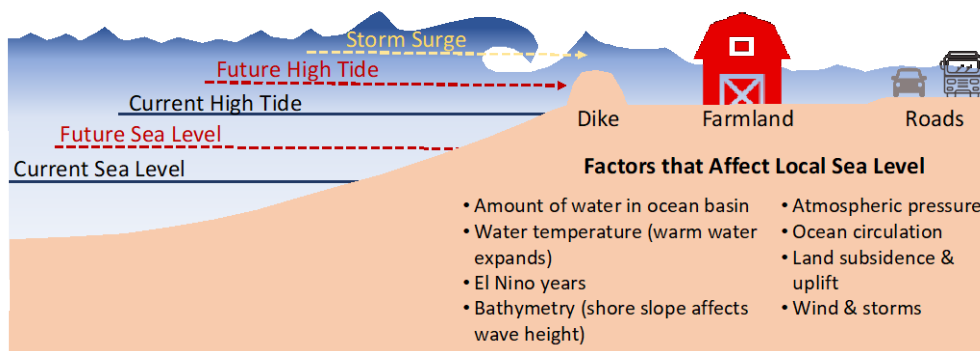


Figure 1.7: Rising Sea Levels and Storm Surge. A 12-inch increase in sea level turns a 100-year coastal storm event into a 10-year coastal storm event. A 24-inch increase in sea level turns a 100-year coastal storm event into an annual coastal event.

²⁵ Dickerson-Lange, S.E. and R. Mitchell. 2013. Modeling the Effects of Climate Change Projections on Streamflow in the Nooksack River Basin, Northwest Washington. Hydrological Processes, Published Online in Wiley Online Library

²⁶ <http://www.skagitclimatescience.org/skagit-impacts/sea-level-rise/>

²⁷ Balch, J.K., et al. "Human-started wildfires expand the fire niche across the United States," *PNAS*, MARCH 14, 2017. 114(11) 2946-2951.

major refineries, the County's strong dependence on fossil fuel jobs and revenue has the potential to make the County economically vulnerable unless the issues related to the economy and jobs are addressed in advance.

In a letter to stockholders²⁸ in January 2020, Larry Fink, asset manager at the mega-investment firm Blackrock, stated that a fundamental reshaping of finance is now underway at Blackrock because *climate risk is investment risk*. This is a risk that is rapidly changing and markets to date have been slow to reflect this risk.

4. Establish Financial Incentives and Mechanisms. To quickly reduce emission, the County will need to provide financial incentives and mechanisms. The initial cost of energy efficiency upgrades can be steep for homeowners and businesses. Ecosystem restoration and floodplain management projects can also be very expensive. There are many sources of stimulus and infrastructure funds available at the state and federal levels that could help fund new programs, yet individual staff may be unaware of these opportunities or do not have the time to apply for grants.

Another concept that crosscuts the Natural Environment section of this report is the need for Carbon Market transactions, as part of a larger natural resources marketplace, to incentivize management practices that increase carbon storage in soils and plants. A carbon market sells offsets or carbon credits to businesses that are large carbon emitters and financially rewards landowners who store carbon. A similar idea is being promoted locally in the formation of the [Kulshan Carbon Trust](#). The trust does not own the land, but instead buys an easement to ensure long-term storage of the carbon. The landowner generates income from the carbon credits and is responsible for protecting the carbon asset.

5. Prioritize Investments in Health, Safety and Preparedness. A recent analysis found that air pollution from fossil fuels leads to almost 250,000 premature deaths per year in the US.²⁹ Avoiding the increased medical costs and productivity losses associated with burning fossil fuels – even without including climate-related benefits - equates to over \$700 billion per year in economic benefits to the US – far more than the cost of the energy transition to renewables.³⁰

In addition, floods, extreme rainfall events, snowstorms and heatwaves all affect access to health care and emergency services. Climate change is already increasing the frequency of extreme weather events that can destroy both public and private property and infrastructure while also increasing susceptibility to disease and pests.

Insurance companies started tracking climate-related disasters as early as 30 years ago. To protect their liability, these companies have been re-evaluating flood and fire zones and either increasing rates or denying coverage.³¹ State Farm Insurance has stopped insuring homes in Florida and is evaluating similar

²⁸ Fink, Larry. "Sustainability as BlackRock's New Standard for Investing," CEO BlackRock.

<https://www.blackrock.com/corporate/investor-relations/blackrock-client-letter>

²⁹ Shindell, Drew. "The Devastating Health Impacts of Climate Change," Duke University, Aug 5, 2020, testimony to the House Committee on Oversight and Reform.

³⁰ Roberts, David. "Air pollution is much worse than we thought, Ditching fossil fuels would pay for itself through clean air alone," Vox News, Aug 12, 2020, [Vox.com](#).

³¹ How climate change is changing your insurance, PBS News Hour, Nov 27, 2018.

<https://www.pbs.org/newshour/economy/making-sense/how-climate-change-is-changing-your-insurance>

action in parts of California.³² The economic and societal impacts of US weather and climate have increased substantially over the last few decades with an estimated cumulative cost since 1980 that exceeds \$1.75 trillion.³³

As the recent pandemic has illustrated, planning and investments in our emergency and public health systems are critical to lessening the economic and human impacts of natural disasters. Countries with strong public health systems and leadership, such as Taiwan, South Korea, and New Zealand, were in a better position to contain the Covid-19 virus relatively quickly.

Whatcom County has a valuable tool for increasing public health, safety, and preparedness in the face of a changing climate—land use planning. The way we use land is fundamental to our safety and climate change can amplify any problem. Enhanced protection starts by including climate change considerations when approving new developments, roads, bridges, and emergency facilities. Such actions were once viewed as radical and as a result, avoided. The result is that federal agencies are now using our tax dollars to move whole communities out of flood zones.³⁴

6. Increase County Leadership through Action, Partnerships, and Influence. The complexity of climate impacts on the built and natural environments cannot be solved by government alone. Solving complex problems such as preserving water quantity and quality will require a broad range of partnerships across jurisdictions. To succeed, the County will need to provide strong leadership and coordination.

The County can also lead through example, by implementing and achieving aggressive goals to reduce carbon emissions in County operations, increase energy efficiency, and require zero-carbon operations in buildings. County-led demonstration projects that increase the availability of renewable energy, promote “green” jobs, and protect Whatcom County’s environment are all necessary leadership actions. The Climate Action Plan proposes several [demonstration projects](#) that would qualify for state, federal or foundation funding, be a benefit to the County, serve as an education and communication tool, and honor the historical roots of the County.

Finally, there are some policy areas where County government has direct control through regulations and others where it can exercise influence. For example, the County can influence changes in state laws and regulations that can help solve climate-related problems, such as state water laws or state laws on financing energy efficiency upgrades. The County can also influence companies to encourage new approaches to reduce GHG emissions.

7. Seek Cross-Cutting Systems-Level Solutions. As is the case with most climate action plans, the organization of this plan is largely dictated by the way the greenhouse gas emissions are assessed and reported. We recognize that there are many cross-cutting issues that impact multiple areas of the built and natural environment. In this case we encourage County staff to take a more systems-level approach when implementing strategies and actions.

³² Barr, Alistair. “State Farm to exit Florida property insurance,” MarketWatch, Jan 27, 2009.

³³ NOAA Climate.gov, <https://www.climate.gov/news-features/blogs/beyond-data/2010-2019-landmark-decade-us-billion-dollar-weather-and-climate>

³⁴ Flavelle, Christopher. “US Flood Strategy Shifts to ‘Unavoidable’ Relocation of Entire Neighborhoods,” New York Times, Aug 27, 2020, <https://www.nytimes.com/2020/08/26/climate/flooding-relocation-managed-retreat.html?referringSource=articleShare>

Systems-level thinking is simply taking into account how different parts of a system or systems interact, and by doing so, develop approaches that can solve multiple problems. For example, any solution that provides for adequate water quantity in agriculture must also address adequate in-stream flow for fish. Systems-level solutions acknowledges that most problems, particularly environmental problems, are both multidimensional and interrelated. The best climate strategies solve a cross-cutting problem in a way that benefits multiple sectors. Properly implemented, the Climate Commitment Act will be an important part of system level solutions for Washington State.

The County should start by incorporating climate risk in all aspects of planning, starting with the Comprehensive Plan, Shoreline Management Plan, new infrastructure, zoning, and regulations in urban growth areas and new industrial, commercial, and residential developments (density, building codes, and multimodal transportation plans).

Universal broadband is a good example of an issue that crosscuts multiple sectors and is key to reducing emissions in electricity, buildings, and transportation. Remotely controlling energy use in buildings lowers energy costs and emissions. Enabling work from remote locations reduces emissions from transportation. Whatcom County cannot compete in the economic growth and commerce of the 21st century if broadband is only accessible to wealthier households and those located in urban areas.

8. Use the Best Available Science and Data Management Practices. Whatcom County has and continues to fund important science to better understand and address climate change impacts such as Nooksack River flooding and coastal sea level rise. Continued support of this type of research will be critical to planning efforts at the County level. The latest science should be incorporated when climate strategies are evaluated for effectiveness.

A common theme throughout this plan was a general lack of readily accessible data for both planning and evaluating the success or outcomes of various programs. Data collection and analysis are not only critical for making decisions but also for evaluating our progress in addressing climate change. Data are often missing or unavailable for evaluating the benefits of various mitigation strategies such as upgrading the energy efficiency of buildings, commute trip reduction programs, waste recycling initiatives, and carbon footprint differences between projects completed by County employees versus private contractors.

Data collected on natural resources in Whatcom County are fragmented and housed in multiple organizations. For example, several organizations in the County collect information on in-stream flow and water quality in the Nooksack River Basin. Recording all of this information in a common database that could be accessed by researchers and the general public could accelerate a greater understanding of this complex river system resulting in problem-solving and action. Snohomish County has such an online platform at tableau.com where information is collected from multiple sources, analyzed, and graphed to indicate trends and get a better understanding of changes occurring over time. Whatcom County should host such a system.

9. Support Research, Development and Demonstration Projects. Although this Climate Action Plan relies on existing technologies, many of these available technologies are not widely deployed and may be unfamiliar to the public. Local demonstration projects are a very effective way to test new technologies and show residents and builders their advantages. The County should design and execute demonstration projects through collaborations with local research universities, national laboratories, state and federal agencies and the private businesses. Data and information collected from

demonstration projects can also be used to support changes in existing regulations or even state laws and legislation.

When making all planning and purchasing decisions the County needs to ask how they affect progress toward our climate goals. County decisions must move us toward a lower-carbon, climate-resilient future, while also helping to promote economic prosperity, equity, and social justice. To maintain a prosperous Whatcom County, we must adopt both mitigation and adaptation strategies that maximize our resilience to flooding, water shortages and wildfires, and move closer to a sustainable cleaner energy economy. Our economy and health depend on clean water and air, healthy farmland and forestland, and diverse, resilient ecosystems. This revised Climate Action Plan is intended to be the roadmap to get started.

SECTION 2 - BUILT ENVIRONMENT

Introduction to the Built Environment

The built environment in this report includes the human-built infrastructure that is a part of everyday life—electricity, buildings, industry, transportation, and waste.

Additionally, land use is considered throughout this Climate Action Plan because its policies play a critical role in both increasing and reducing emissions. Land use can be viewed as a tool to help balance the built and natural environments.

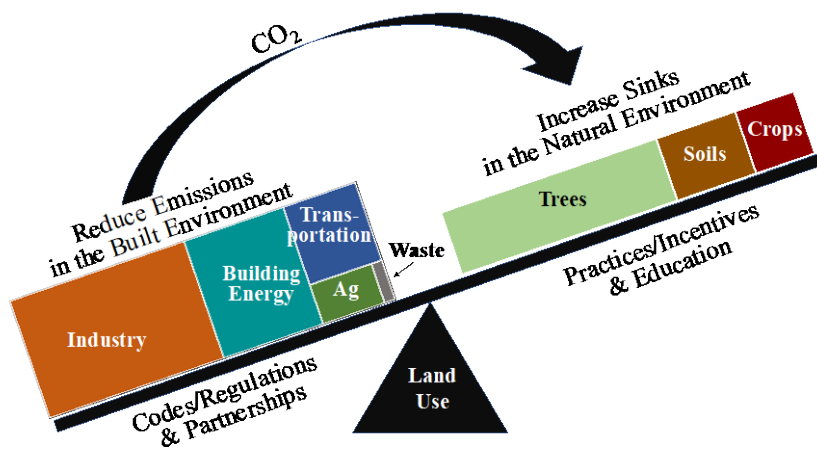


Figure 2.1: Land use can also be viewed as the fulcrum of a GHG balance beam with the built environment on one side and the natural environment on the other.

Land use can also be viewed as the fulcrum of a GHG balance beam with the built environment on one side and the natural environment on the other. Sources of GHG emissions currently outweigh potential sinks for GHG emissions. Smart decisions on land use practices are one of several tools that can help us balance this beam and reach net zero emissions by 2050.

The pie chart (Figure 2.2) showing categories of Whatcom County's total communitywide emissions for 2017 includes five categories analyzed in the ClearPath modeling for Whatcom County. Industry emissions are by far the largest contributor to Whatcom County's communitywide emissions, followed by building energy, transportation, agriculture, and solid waste and wastewater. Building energy includes emissions from electricity, fossil fuels used in heating (primarily natural gas), and refrigerants.

Whatcom's industrial emissions are dominated by two oil refineries which produce gasoline that in turn contributes to the state's largest emitter, transportation. The state's largest refinery is owned and operated by *bp*, which understands the need to transition to renewable fuels and is quickly adapting its plans.³⁵

All parties—the state, County, and private industry—should work together on win-win solutions to reduce GHG emissions from industry, while securing long-term economic benefits for Whatcom County.

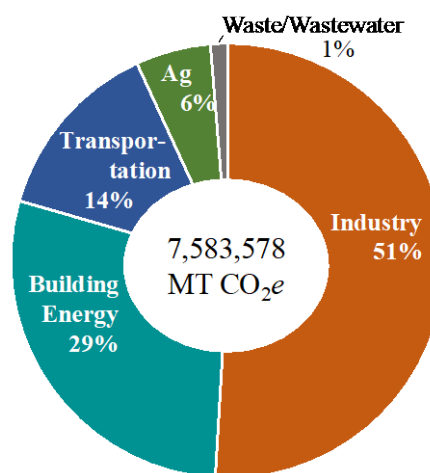


Figure 2.2: Categories of 2017 Whatcom communitywide GHG emissions.

³⁵ Ambrose, Jillian. "bp sets net zero carbon target for 2050," The Guardian, Feb 12, 2020.

<https://www.theguardian.com/business/2020/feb/12/bp-sets-net-zero-carbon-target-for-2050>

Our industries and workforce, therefore, can *become part of the statewide solution for GHG emissions* through the production of low-carbon fuels, which will accelerate our economic competitiveness in the emerging worldwide clean energy economy.

In addition, to reduce GHG emissions from building and transportation sectors, Washington’s 2021 State Energy Strategy emphasizes electrifying end uses to the greatest extent possible.³⁶ Space and water heating account for the majority of energy consumed in commercial and residential buildings, and commercially available heat pump-based appliances are far more energy efficient than other methods. Electric vehicle adoption will dramatically reduce carbon pollution but increase the demand on the grid. Fossil fuels must therefore be rapidly replaced on the grid for maximum gain.

Hence, electricity is often referred to as the *linchpin* for reducing GHG emissions (Figure 2.3). Large-scale wind and solar combined with energy storage make possible the replacement of most fossil fuel generation. A modern, flexible smart grid infrastructure can more effectively balance electricity supply and demand in real time as conditions change, reducing the high cost of fossil fuel peaking plants.³⁷ These cost competitive smart grid technologies can significantly reduce GHG emissions in Whatcom County.

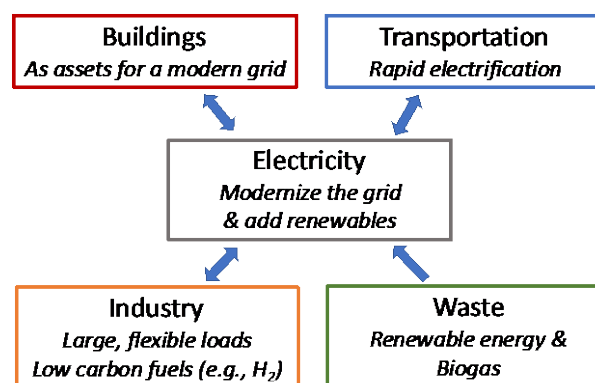


Figure 2.3: Electricity is the kingpin for reducing GHG in the built environment.

While electrification is a major thrust of mitigating GHG emissions, adaptation also has an important role in the built environment. For example, we must consider current and future climate change impacts, such as high temperatures, severe storms, flooding, sea-level rise, and other factors when designing new homes, buildings, and critical infrastructure such as hospitals, emergency response centers, roads, bridges, and broadband.

The built environment areas of Electricity and Buildings, Industry, Transportation, and Waste represent systems where mitigation practices are the major emphasis in the climate strategies. The built environment is an ecosystem of interconnected components that can be adapted when developing a sustainable, climate-resilient community. In many respects Land Use connects the built and natural environments as an effective tool for mitigation and a critical component in adaptation to climate change.

Agriculture is another area to consider and is responsible for a small portion of the emissions in Whatcom County; however, agricultural land has the potential to become a net carbon sink for addressing GHG emissions. This area is discussed in Section 3, Natural Environment.

³⁶ Washington 2021 State Energy Strategy, pg. 48. <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

³⁷ “Peaker” plants can quickly ramp up electricity generation during periods of high electricity use. PSE has 4 natural gas peaking plants in Whatcom County alone.

Electricity and Buildings

To fight climate change, we must modify our buildings. To do so, we need to do two things —use less energy and make sure what energy we do use is clean, i.e., decarbonized. Buildings will increasingly play a key role in creating a modern, smart grid because most electricity on the grid is consumed in buildings. As a consequence, there is a growing need to view electricity and buildings as an integrated system — where electricity use in buildings can be used to manage the electricity load in a modern grid. Hence, buildings (and their major energy devices) can be operated as grid assets. For these reasons we treat electricity and buildings together.

Both Washington State and the US have mandated a transition of our energy economy to be carbon-neutral by 2050 or sooner. This 30-year economic transition will be difficult, and the exact roadmap is unclear. The overarching strategy is to rapidly electrify end uses while simultaneously removing fossil fuels from the electrical grid. The major impediment to decarbonizing the electric grid is the need for additional high-voltage transmission lines, which is why the federal government has put so much emphasis on new transmission in their infrastructure legislation.

Over the last century the traditional approach for providing electricity in the U.S. has been top-down centralized generation and delivery of electricity by a utility (Fig 2.4). This approach has served us well but is increasingly susceptible to cascading failures in the grid that are often the result of extreme weather events attributed to climate change. Grid failures can trigger blackouts caused by unseasonably cold weather such as what happened in 2021 in Texas³⁸ to drought-induced wildfires in California and Oregon.

Extreme weather events have resulted in a steep increase in grid failures over the last two decades.³⁹ Accordingly, state, and federal agencies have called for investments in a modern, smart grid that will be resilient to the unpredictable changes in climate. A critical component of creating a resilient electric grid will require much more emphasis on a bottom-up approach that uses buildings as grid assets (Fig 2.4).

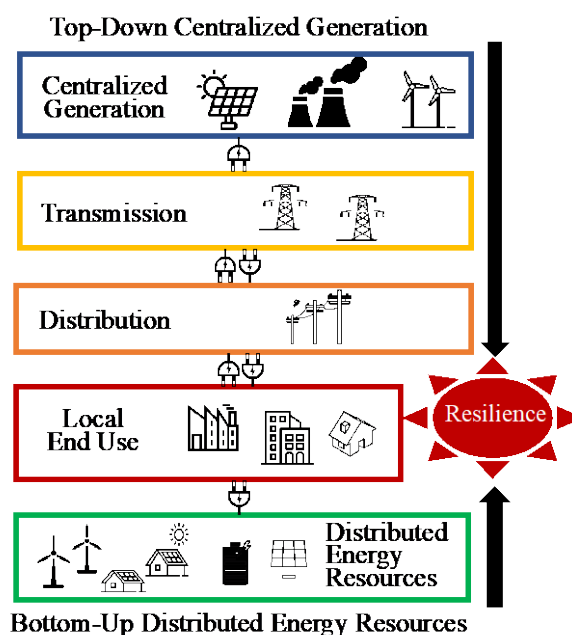


Fig 2.4: A modern, resilient electrical grid depends on both centralized and distributed energy resources.

Washington State’s 2021 State Energy Strategy concludes that *the most effective way to reduce GHG emissions sufficiently is to decarbonize the grid and electrify end uses to the greatest extent possible*. “To

³⁸ Ball, Jeffrey. “The Texas Blackout is the Story of a Disaster Foretold,” Feb 19, 2021. Texas Monthly, <https://www.texasmonthly.com/news-politics/texas-blackout-preventable/>

³⁹ Allen-Dumas, Melissa R, Binita KC, and Colin I Cunliff. “Extreme Weather and Climate Vulnerabilities of the Electric Grid: A Summary of Environment Sensitivity Quantification Methods,” August 16, 2019. Oak Ridge National Laboratory, ORNL/TM-2019/1252/: <https://www.energy.gov/sites/prod/files/2019/09/f67/Oak%20Ridge%20National%20Laboratory%20EIS%20Response.pdf>

electrify the economy while assuring system reliability and resilience requires a smart, flexible, and optimized grid.”⁴⁰ Water heating and space heating/cooling use upwards of 70% of building energy; that is why we must focus on wisely electrifying them first.

By 2050, the Washington 2021 State Energy Strategy (SES) predicts the total demand for electricity will nearly double. Washington will change from a net exporter of electricity to a net importer, with over 40% of the state’s electricity coming from utility-scale wind (e.g., Montana, Wyoming) and utility-scale solar (e.g., Southwest primarily). However, the time, cost, and difficulty in building the required new transmission lines is a big multi-jurisdictional challenge to overcome. We expect our main utility PSE will move aggressively to acquire utility-scale resources, and they have indicated their plans to add 1800 MW of utility-scale renewable resources (400 MW solar and 1400 MW wind) and 1249 MW of distributed energy resources to their grid by 2030.⁴¹

The main challenge this decade will be building the required transmission network to take advantage of low-cost utility-scale renewables. Whatcom County can do their part to facilitate this by reviewing their codes/regulations on the siting of high voltage transmission.

The necessary complement to utility-scale renewables that can be deployed now, create local jobs, improve equity and social justice, reduce peak demand, and most-importantly build resilience is distributed energy resources (DERs), which are discussed in detail in strategy 4. The federal government, state, and PSE recognize the need to aggressively deploy DERs, such as rooftop solar and home batteries. “Rooftop solar and home batteries make a clean grid vastly more affordable; distributed energy is not an alternative to big power plants, but a complement,” according to David Roberts.⁴² Since almost half of electricity cost is attributed to its delivery to the end-user, it is not surprising that locating DERs near the end-user not only lower overall cost but also provide resilience.

Using high efficiency appliances on a modern smart grid provides a dual benefit: reduced energy use and better management of electricity supply and demand. Federal and state agencies recommend these aggressive approaches as having the best chance of creating reliability and resilience while cutting GHG emissions and minimizing the need for additional natural gas peaking plants. Key approaches are detailed below that will build a modern grid to provide our community with clean electricity and enhance our ability to adapt to a changing climate.

Our Local Electricity System

Unlike the rest of the US, Washington state has access to abundant hydroelectricity, which dominates all other renewables. According to the draft 2021 Northwest Power Plan,⁴³ climate change will have a dramatic impact on our future electricity supply. More precipitation and more moderate

The Northwest Power and Conservation Council forecasts that changes to climate will cause major change in the region’s hydroelectricity operations:

- Increased winter and spring runoff,
- Increased summer electricity demand for cooling,
- Decreased summer and fall river flows exacerbating problems, particularly for fish passage.

⁴⁰ Washington 2021 State Energy Strategy, pg. 122. <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

⁴¹ Vande Griend, Carryn, PSE Public Comment on draft Climate Action Plan, July 30, 2021.

⁴² Volts podcast, <https://www.volts.wtf/p/rooftop-solar-and-home-batteries>.

⁴³ Council Approves Release of Draft 2021 Northwest Power Plan for Public Review, August 25, 2021.

temperatures in the winter, and less precipitation and higher temperatures in summer. This means there will be less demand for electricity for heating in the winter and more demand for electricity in the summer for air conditioning. Peak demand for electricity or the “resource adequacy” will shift from winter to summer at the same time of the year when hydroelectric generation will be lowest. The addition of renewables is expected to cause very low market prices during midday hours and battery storage may extend electricity use into the evening hours. This will lead to operational challenges for utilities that operate natural gas peaking plants that will have trouble competing with these low market prices.

Seventy-eight percent of all the electricity generated in Washington uses renewables as the energy source (Fig 2.5). The fuel mix of electricity used in the state is the aggregate of electricity delivered by utilities to end users.⁴⁴ The Bonneville Power Administration (BPA) manages most of the hydroelectricity resource outside of Seattle. It provides electricity to public utilities in Whatcom County such as the cities of Blaine and Sumas and to Whatcom PUD1. Whatcom PUD1 supplies electricity to the Phillips 66 refinery at Cherry Point.

The communitywide GHG emissions from electricity, ~1.38 million metric tons, are the second largest source of GHG emissions after point-source emissions from industry. Electricity use is roughly split in thirds among residential, commercial, and industrial buildings (Fig 2.6). The majority of residential, commercial, and industrial customers in Whatcom County buy electricity from PSE, a private, investor-owned utility. Given the hydroelectricity generation’s dominance in the state, it is often surprising to local PSE customers that most of their electricity is generated by coal and natural gas, similar to the US-wide generation (Fig 2.5). PSE owns and operates four electricity generating plants in Whatcom County which are fueled by natural gas. The fossil fuel component of PSE’s electricity increased to 66% in 2019.⁴⁵

Decarbonization of electricity in Whatcom County will be a challenge. As electrification needs increase for space and water heating and for transportation, PSE in particular will need to generate more electricity while also rapidly reducing the amount of fossil fuels used to generate the electricity. The Bellingham Climate Action Task Force report⁴⁶ found that even with PSE’s current fossil dominated fuel mix,

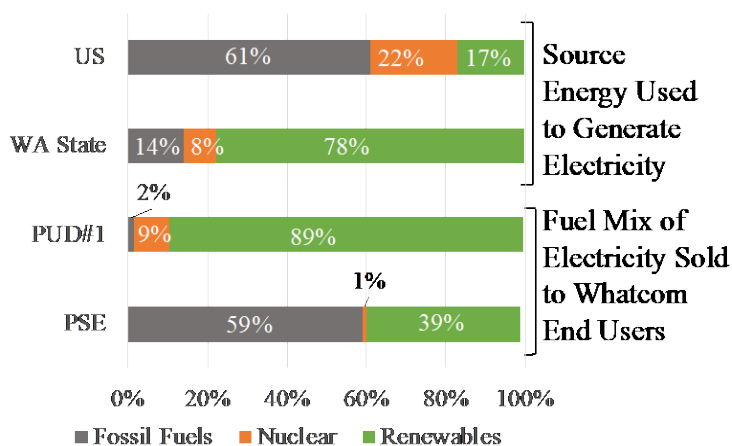


Fig 2.5: Reported 2017 fuel mix for electricity generation and the fuel mix of electricity sold to end users in Whatcom County.

⁴⁴ Washington State Electric Utility Fuel Mix Disclosure Reports for Calendar Year 2017, Washington Department of Commerce, November 2018, Report to the Legislature, Brian Bonlender, Director.

⁴⁵ PSE | Our Diversified Electricity Supply – Puget Sound Energy website: <https://www.pse.com/pages/energy-supply/electric-supply>. Note: Utilities are required to disclose their fuel mix. PSE’s website only displays their most recent annual calculation, which was 2019 at the time of this report. PSE’s 2018 fuel mix also reported 66% fossil fuel generation (coal plus natural gas).

⁴⁶ City of Bellingham Climate Action Task Force Final Report, December 2019. https://cob.org/wp-content/uploads/Climate-Task-Force-FINAL-Report-12_2_19.pdf

efficiency gains from EVs and heat pumps for space and water heating would cut GHG emissions nearly in half by 2035. Switching to renewable electricity as mandated by Washington’s Clean Energy Transformation Act renders GHG emissions negligible from buildings and transportation.

Goal and Strategies for Electricity and Buildings

Goal: Reduce communitywide GHG emissions from electricity and buildings 45% by 2030, while creating equity-centered resilience in these sectors. County government will lead this effort and demonstrate action and operational cost savings via energy efficiency and new building concepts for government operations, effectively reducing government operations emissions 85% by 2030.

Six strategies are proposed to support this goal and are aligned with Washington’s 2021 Energy Strategy. The strategies address both the traditional, top-down centralized generation and delivery of electricity, as well as a bottom-up distributed energy resource where buildings become assets to the grid for balancing supply and demand.

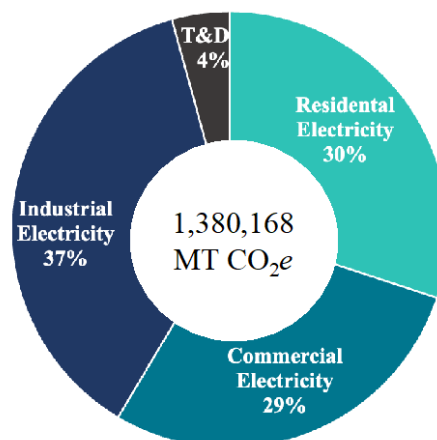


Fig 2.6: Communitywide GHG emissions from electricity use in buildings in 2017, representing 18% of total GHG emissions. T&D are Transmission & Distribution

Strategies for Electricity and Buildings

1. Assert County leadership in state legislation, regulatory matters (Washington Utilities and Trade Commission and Commerce), and electric utilities operations that enables implementation of Whatcom climate strategies and facilitates a 45% reduction in GHGs by 2030.
2. Create resilience hubs for key community services and work with utilities to identify needed transmission and distribution investments.
3. Lead by example: electrify end uses in County government buildings, install renewable energy and energy storage where feasible to reduce energy operational costs and GHG emissions.
4. Focus on *buildings as grid assets* to maximize the grid’s reliability and resilience. Accelerate the use of clean Distributed Energy Resources (DERs) and microgrids to reduce peak electricity demand, optimize the grid, and provide electricity to the most important end uses when the utility grid is down.
5. Moving to net zero: upgrade existing buildings by collaborating with local NGOs to accelerate energy efficiency upgrades. Require new buildings to be net zero carbon emissions capable no later than 2027.

-
6. Pilot key concepts to reduce electricity use and building GHG emissions through demonstration projects that can scale up rapidly.
-

Strategy 1: Assert County Leadership in State Legislation, Regulatory Matters, and Electric Utilities Operations.

Although the County has no direct control over the operation of private and public utilities, the County does have influence over local utilities, state legislation, and state utility regulations that will help it achieve its climate goals by reducing GHG emissions from the electricity grid.

The 2019 Clean Energy Transformation Act (CETA) is a good example of where the County in concert with other cities and counties can exert leadership with the Washington Utilities and Transportation Commission (WUTC). CETA requires all electric utilities serving retail customers to eliminate coal-fired electricity by 2025 and be GHG neutral by 2030. GHG neutral means that utilities have flexibility to use limited amounts of electricity from natural gas if offset by other actions. By 2045, utilities must supply electricity that is 100% renewable or non-emitting, with no provision for offsets.

Whatcom County should actively participate in WUTC and Commerce regulatory proceedings for CETA, as well as engage in PSE's Integrated Resource Plan (IRP) and Clean Energy Implementation Plan (CEIP).⁴⁷ These proceedings and plans are important opportunities for the public to exert influence on utilities to actually reduce their reliance on fossil fuels.

Also of note is the passage of the 2021 Climate Commitment Act and its potential impact on electric utilities and natural gas companies. "Potential impact" because the actual rule making for the CCA will take place this year. Any specific utility company's decision about how to use the allowances obtained under this law will depend on several factors, including the going price for allowances and the regulatory treatment of those allowances by the UTC. It is therefore difficult to predict how PSE or Cascade Natural Gas will change behavior in response to the CCA. The new law will also make available funding for a variety of eligible projects such as deploying renewable energy, modernizing the grid (including demand side measures), increasing building energy efficiency, and electrifying space and water heating.

As we electrify end uses (e.g., space heating and transportation), the resulting impact on emission levels depends on how much carbon is removed from electricity generation. Without the cooperation of local utilities, County efforts to reduce GHG emissions from our energy supply will be difficult to achieve and could fall far short of desired outcomes.

Whatcom County is also home to three public utilities that provide electricity primarily generated by renewables – Whatcom PUD1 and municipal utilities in Blaine and Sumas. To provide consumer choice and reduce GHG emissions more rapidly, the County should support the evaluation of Whatcom PUD1 expansion within the County. PUDs and municipal utilities in our state generally charge lower prices and

⁴⁷ <https://www.cleanenergyplan.pse.com/>

use more renewable energy because they buy a large share of less expensive hydropower from BPA (Fig 2.5).

On average statewide, PUD rates are about 10% lower than PSE's (Fig 2.7).⁴⁸ Delivery costs for public and private power companies are roughly the same – at about \$0.05/kWh. The difference is in the average cost of power, around 6 cents/kWh for PSE and ~4 cents/kWh for PUDs purchasing from BPA.

To reduce GHG emissions, the County should encourage and facilitate the addition of utility-scale renewable energy resources such as solar, wind, and battery, plus necessary transmission, and distribution infrastructure to deliver power to end users.

Considerable wind resources are potentially available in Montana, Wyoming, and eastern Washington. PSE's retirement of its 700 MW share of the coal-based Colstrip power plant located in Montana frees up transmission capacity that it could use in the robust out-of-state renewable generation market (Fig 2.8). An emerging option for Washington State is to deploy offshore wind turbines in the Pacific (not in the Salish Sea), like the new GE turbine that is able to deliver 13 megawatts of power, six times more electrical power than current land-based windmills in the state.⁴⁹

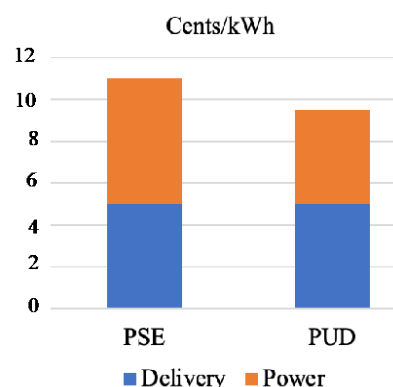


Fig. 2.7: PSE and PUD average cost of electricity in Washington.

Renewable generation with battery storage can overcome daily issues in electricity peak demand. Washington state's first utility-scale solar and battery storage site was just completed in Richland. In addition to generating electricity, this facility will offer a training program for solar and battery storage technicians.⁵⁰ A Colorado energy company is also investing in southeast Washington, announcing plans for the 1,150 MW Horse Heaven Wind, Solar and Battery Farm near the Tri-Cities.⁵¹ Solar and wind energy is cost-competitive with fossil fuel generation of electricity as shown in Figure 2.8. The Department of Energy (DOE) has recently set a target of reducing solar costs 60% by

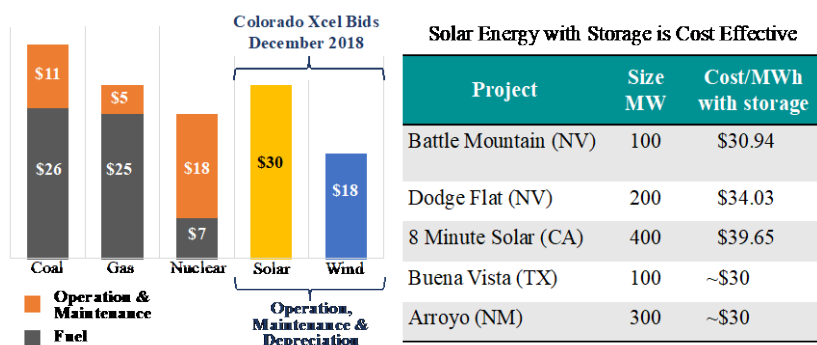


Figure 2.8: Cost of utility-scale renewables from actual bids. Coal, Gas and Nuclear costs are Energy Information Administration data prepared by the Regulatory Assistance Program (www.raponline.org)

⁴⁸ Prepared by the Regulatory Assistance Program (RAP), www.raponline.org, using information from the Energy Information Administration at the US Department of Energy.

⁴⁹ Reed, Stanley. "GE gives wind turbines a whirl – and upends an industry" The New York Times. Reprint in the Seattle Times January 7, 2021: https://replica.seattletimes.com/popovers/dynamic_article_popover.aspx?artguid=8e7dcee5-6a58-42da-b852-77b1f6fa5206

⁵⁰ Horn Rapids Solar, Storage and Training Project, Energy Northwest, November 2020; <https://www.energy-northwest.com/energyprojects/horn-rapids/Pages/default.aspx>

⁵¹ <https://www.efsec.wa.gov/energy-facilities/horse-heaven-wind-project>

2030.⁵² DOE's previous 2011 *SunShot Initiative* met its 75% reduction goal for utility-scale solar cost three years early in 2017.⁵³

The US DOE is also targeting a 50% reduction in the cost of rooftop solar by 2030. The recent release of the SolarAPP+ software,⁵⁴ free to local and state governments, lowers the "soft costs" associated with rooftop solar installations (e.g., design, permitting, inspections) which are over half the total cost in the US. This software, which can be configured for local codes and databases, streamlines workflow and greatly speeds approvals for over 90% of standard installations. In addition, the app is being enhanced to include installation of battery storage and local energy management systems.

Key Priority for County Leadership:

- ***Monitor utilities' progress with CETA, while exploring options for greater renewable energy for electricity end-users in Whatcom County. Advocate for state legislation that accelerates a reduction in GHG emissions in electricity and buildings.***

Strategy 2: Create Resilience Hubs for Key Community Services and Work with Utilities to Identify Needed Transmission and Distribution Investments.

Resilience hubs are defined as additions to community-serving facilities so that they can support residents and coordinate resource distribution and services before, during or after a natural or man-made disaster.⁵⁵ On a daily basis, community resilience hubs provide a space for public meetings and activities that draw neighborhoods together and promote a shared sense of responsibility. A resilience hub can operate independent of the electrical grid temporarily. Examples include public facilities such as community centers or emergency shelters, fire stations, hospitals, schools, and water treatment plants. Resilience hubs can also apply to private facilities such as food processing and cold storage units vital to maintaining the food supply.

Resilience hubs are especially important in areas of the County where there is limited electricity transmission and distribution coverage, areas subject to frequent outages, and/or communities frequently impacted by flooding, heat waves and wildfires. Resilience hubs can be designed to address several of the guiding principles that were outlined in Section 1, such as health, safety and preparedness, community needs, and racial equity and social and environmental justice. They can serve as life-saving cooling centers for homeowners and renters who lack or cannot afford air conditioning. The County should work with local utilities to identify these areas to help prioritize resilience hubs.

Resilience hubs enhance social equity. For example, facilities with rooftop solar and/or batteries can be used to reduce electricity costs. Large solar arrays on multiple facilities could serve as a basis for a large community solar project to benefit renters and low-income households and create greater equity within the community. One of the most common requests from Whatcom residents is the desire to have a community solar program. Many homeowners do not have solar exposure or cannot afford to install rooftop solar, and renters have no option. True community solar, where the public can purchase solar

⁵² DOE Announces Goal to Cut Solar Costs by More than Half by 2030, March 25, 2021. <https://www.energy.gov/articles/doe-announces-goal-cut-solar-costs-more-half-2030>

⁵³ The SunShot Initiative, DOE's Solar Technologies Office (<https://www.energy.gov/eere/solar/sunshot-initiative>).

⁵⁴ Sign up and learn about SolarAPP+ at solarapp.nrel.gov.

⁵⁵ ISDN Resilience Hubs, Urban Sustainability Directors Network, <https://www.usdn.org/resilience-hubs.html>.

panels that are part of a large installation in order to reduce their energy costs will require utilities to provide virtual net metering (VNM). Several public utilities in the state already offer VNM, but it will take state legislation to require all utilities to offer VNM. VNM is essentially an accounting system that provides credit on an individual's electricity bill based on the portion of solar production they subscribe to in a community-owned solar installation.

The planning of resilience hubs must engage community members, vulnerable populations, and consider GHG emissions reductions. Resilience hubs can and should have the goal of building community or social infrastructure and cohesion.

The Lummi Island workshop "Brainstorming a Pathway for an Energy Resilient Future" (April 2021) is an excellent example of active community involvement to determine their desired future. The focus was to bring together various organizations to learn best practices to develop a solar/ battery microgrid from neighboring OPALCO. The proposed Lummi Island microgrid would provide resilience for the electric grid and a source of energy for a new hybrid electric ferry. Whatcom County can show leadership by facilitating and supporting this process.

Key Priority for Resilience Hubs:

- *Create resilience hubs by fortifying key emergency and community services to provide clean energy daily for community benefits during normal times and backup power and shelter during disasters.*

Strategy 3: Lead by Example: Electrify End Uses in County Government Buildings, Install Renewable Energy and Energy Storage Where Feasible.

Whatcom County government operations can show both leadership and action by electrifying County buildings. The County should start by developing a multi-year master plan for upgrading, consolidating, or replacing government facilities to maximize energy efficiency *and* eliminate GHG emissions. Electrification of space and water heating, rooftop solar, battery storage, and EV charging infrastructure will not only save taxpayer money by reducing long-term County operating costs but serve as an example to local businesses on how they too can also increase resilience and reduce GHG emissions while reducing costs and saving money.

Key Priorities for Whatcom Government Operations:

- *Develop a multi-year master plan for upgrading and/or consolidating County government facilities to maximize energy efficiency, renewable energy and storage, and EV charging infrastructure to reduce greenhouse gases.*
- *Commit to net zero carbon emissions for new County government buildings and facilities.*

Strategy 4: Focus on Buildings as Grid Assets to Maximize the Grid's Reliability and Resilience. Accelerate the Use of Clean Distributed Energy Resources (DERs) and Microgrids to add Renewables, Reduce Peak Electricity Demand, and Provide Electricity to the Most Important End Uses.

To maximize reliability and resilience in the electrical grid, while at the same time reducing GHG emissions, a truly win-win strategy is to aggressively deploy Distributed Energy Resources (DERs) and

develop microgrids.⁵⁶ As shown in Fig 2.9, DERs can be employed by the utility (top-down generation) or at the building/facility scale (bottom-up generation). Rapid adoption of DERs and microgrids cannot be accomplished without innovative financing mechanisms, just as automobile and home financing dramatically expanded their respective markets in the last century.

DERs encompass the following three categories:⁵⁷

- **Energy Generation (or Supply):** Rooftop solar, wind turbines, mini-hydro, and biomass boilers.
- **Energy Storage:** Batteries, fuel cells, EVs, or phase change materials that can release or absorb energy when changing physical state. Energy management software can switch batteries quickly between charging, discharging, and storage, making them a valuable energy asset.
- **Energy Management:** “Smart” meters, inverters, and appliances; home energy management software; microgrid control systems.

“DERs are not a boutique version of, or a distraction from, utility-scale renewables; they are a necessary complement, and an enabler and accelerator.” They save building owners money, create local jobs, improve equity, reduce peak demand, while increasing individual and community resilience. David Roberts, Volts

A distinct advantage of DERs is that they can be deployed relatively quickly, incrementally, and at specific locations such as the resilience hub discussed above, targeting areas in the County that have frequent electric outages, and/or addressing equity and social justice needs.

Electrifying your house is a key strategy to reduce GHG emissions and create climate resilience. As noted in a recent Volts podcast,⁵⁸ the real game in town is the 200 million vehicles, 128 million households, and the 70 million natural gas furnaces. “What we really want is a country that has Australian rooftop solar policy, California or Norwegian EV policy, and South Korean or German heat-pump adoption. That’s the country where the economics are very positive for the household. So we know how to do this, we just don’t know how to do it in one place.”

A microgrid is a miniature, semi-independent grid. Microgrids combine energy generation and storage and have a control system that enables the facility to operate independently of the utility grid during outages or, alternatively, reduce loads during peak demand.

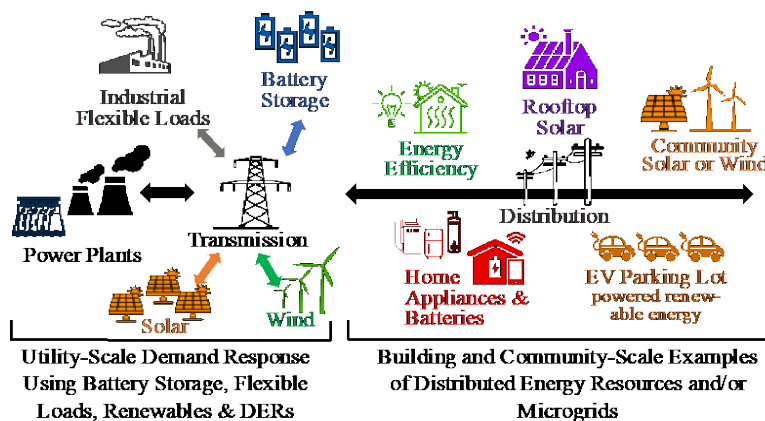


Fig. 2.9: Distributed energy resources and microgrids can be used to maintain electricity load in a modern, smart grid.

⁵⁶ Roberts, David. “Rooftop solar and home batteries make a clean grid vastly more affordable; Distributed energy is not an alternative to big power plants, but a complement.” Volts, May 28, 2021.

⁵⁷ Roberts, David. “Wildfires and blackouts mean Californians need solar panels and microgrids,” Oct 28, 2019, Vox.com.

⁵⁸ Roberts, David. Volts podcast featuring Saul Griffith (Rewiring America) and Arch Rao (CEO Span), June 28, 2021.

A microgrid may consist of a single building such as your home or a local fire station, multiple buildings such as a campus or neighborhood, or a community solar and/or battery storage facility, such as the Snohomish County Arlington microgrid⁵⁹ or the Decatur Island OPALCO microgrid.⁶⁰ Since 2010 the Pentagon has acknowledged that climate change poses a threat to military readiness and operations.⁶¹ As a result, military bases have become one of the key drivers of microgrid growth in the U.S.⁶² And Washington state's Clean Energy Fund strongly supports microgrids for grid modernization, such as Avista's campus microgrid and PNNL's Transactive Energy Campus.⁶³ Figure 2.10 shows the microgrid's point of connection to the main grid, or *behind-the-meter*. The energy supply and demand circles overlap showing four major energy using devices (hot water, HVAC, battery, and EV) responsible for the majority of building energy use. Wisely managing and communicating with these devices minimizes peak usage by effectively storing electrical or thermal energy for anticipated future uses (i.e., peak shifting). Critical loads are end uses important enough to have priority on backup power during outages.

Smart panels (Fig. 2.10) are basically upgrades to the standard electrical panel. A standard electrical

panel has circuits and breakers. A smart panel adds communications, energy management, and smart inverters to the standard panel, which enables the owner to manage the energy for large devices and island their home or building when the grid goes down (e.g., microgrid). An industry leader, Green Mountain Power, has launched a pilot program

"to empower residential customers with new technology to simplify the transition to clean energy for home heating, vehicle charging, solar generation and energy storage. This is the first utility in the country to work with Span to offer the Span Smart Panel."⁶⁴

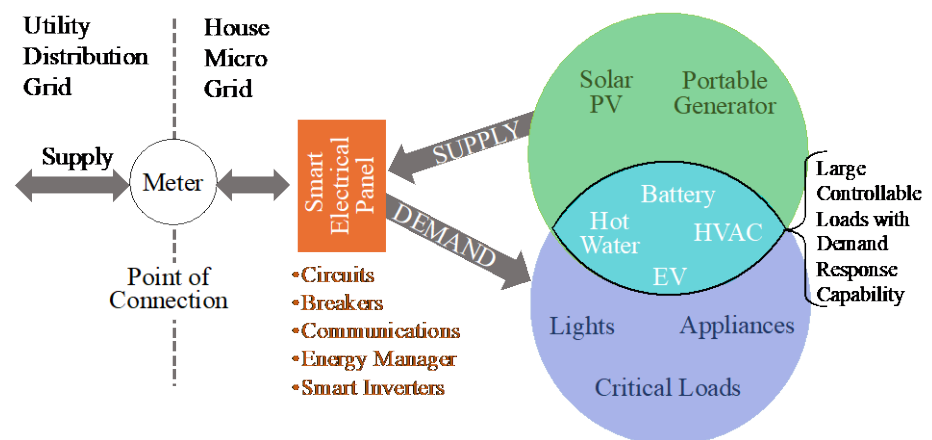


Figure 2.10. Future (Electrified & Smart) Home for reduced GHGs, lower energy costs, and resilient. New microgrid products are available from Span, Tesla, Enphase, Instant On, to name a few.

⁵⁹ Arlington Microgrid Project, www.snopud.com/PowerSupply/ar-microgrid.ashx?p=3326

⁶⁰ OPALCO's First Local Microgrid is Complete! OPALCO Newsroom, <https://www.opalco.com/opalcos-first-local-microgrid-is-complete/2021/02/>

⁶¹ Mitchell, Ellen. "Pentagon declares climate change a 'national security issue,'" The Hill, Jan 27, 2021. <https://thehill.com/policy/defense/536188-pentagon-declares-climate-changes-a-national-security-issue>

⁶² US Military Microgrids – Why? <http://microgridprojects.com/military-microgrid-army-navy-air-force-microgrids-drivers/>

⁶³ Trabish, Herman. "Green Mountain Power's pioneering steps in transactive energy raise big questions about DERs value," The Vermont utility's program will show what distributed energy resources are worth in customer-to-customer transactions; March 4, 2020, Utility Dive.

⁶⁴ GMP is First Utility to Offer Span Smart Panel to Empower Customers, and Accelerate Transition from Fossil Fuel to Clean Energy; News Release, 21 April 2021; <http://greenmountainpower.com>.

Accelerating the deployment of DERs and microgrids can provide power during outages and reduce or defer the high cost of electricity transmission and distribution upgrades. The 2021 State Energy Strategy intends to avoid the electrical grid outages and rolling blackouts highlighted by the California wildfires, by adding DERs quickly and creating microgrids for maximum benefit to a modernized grid.

Demand for electricity in the County varies by season, day, and time. Daily peak electricity demand usually occurs for a few hours in early morning and early evening. As renewables such as wind and solar are added, the peaks become steeper due to excess solar on the grid during mid-day when demand typically drops – resulting in the so called “duck curve.”⁶⁵ Demand response, essentially moving non time-dependent uses such as water heating and battery charging to off-peak hours, can reduce daily electricity peaks with minimal cost.

A BPA demonstration of demand response, conducted in cooperation with Pacific Northwest utilities including PSE, showed how daily peak loads for water heating could be shifted in a simple and cost-effective manner *without* affecting the customers’ lifestyle.⁶⁶ The vast majority of customers were satisfied with the pilot and would likely join a program based on this technology. The business case for this water heater project showed a benefit-cost ratio of 1.74 compared to a simple peaking generation plant. The key is how to transform the appliance marketplace quickly and then recruit customers to a utility’s demand response program first for water heaters, then progressing to other energy intensive appliances.⁶⁷ PSE plans to file its first DER request for proposals to solicit demand response, distributed solar energy resource, and distributed battery resource additions to eventually total 634 MW in their service territory by 2030.⁶⁸

As of January 2021, all water heaters sold in Washington state are required to have a standard communication interface for demand response. Utilities should offer a demand response program and give customers the option to participate. Technologies such as demand response, in combination with energy storage, can be used to manage peak load more cost effectively, more quickly, and with a much lower carbon impact and should be implemented before considering adding possibly unnecessary additional natural gas peaking plants.

In summary, a microgrid of DERs enables “customers generating, storing, and managing their own power, either individually or in networked groups of any size.”⁶⁹ This can apply to single homes, groups of homes, neighborhoods, and beyond. Individual owners can choose what utility programs to enroll in, or not. In turn, this technology enables new opportunities for smart grids, like the Portland General Electric virtual power plant (VPP) of 4 MW by placing battery storage in over 500 homes and paying homeowners monthly rebates. System-level planning enables wise investment in smart appliances that can be monitored and controlled by the owners, by utilities, or both – leveraging multiple investments

⁶⁵ Lazar, Jim. “Teaching the Duck to Fly”

⁶⁶ BPA Technology Innovation Project 336, CTA-2045 Water Heater Demonstration Report, November 9, 2018, pg. iii.
<https://www.bpa.gov/EE/Technology/demand-response/Pages/CTA2045-DataShare.aspx>

⁶⁷ Trevor Higgins, et al., To Decarbonize Households, America Needs Incentives for Electric Appliances, Rewiring America and Center for American Progress, June 2021.
<https://www.americanprogress.org/issues/green/reports/2021/06/03/500084/decarbonize-households-america-needs-incentives-electric-appliances/>

⁶⁸ Vande Greind, PSE Public Comment on draft Climate Action Plan, July 30, 2021.

⁶⁹ Roberts, David, “Wildfires and blackouts mean Californians need solar panels and microgrids.”

together all within the control of the owners. But also enabling much greater GHG emission reductions with the right policies and programs.

Key Priorities for Distributed Energy Resources and Microgrids:

- *Support efforts to deploy DERs, including expansion of broadband to facilitate DER expansion (while also benefiting remote work, education, and commerce).*
- *Work with utilities to accelerate use of demand response to reduce daily peak electricity demand and modernize control of the grid.*
- *Deploy energy storage in targeted locations where batteries, can provide more than one function (e.g., store solar for evening use and provide backup during outages)*

Strategy 5: Moving to Net Zero: Upgrade Existing Buildings by Collaborating with Local NGOs to Accelerate Energy Efficiency Upgrades. Require New Buildings to be Net Zero Carbon Emissions Capable no Later than 2027.

Overall energy use by buildings (electricity, natural gas) accounts for 27% of the communitywide GHG emissions. Most of the electricity on the grid is consumed in (or near) buildings. Across the U.S., buildings are the fastest growing sector of GHG emissions. If electricity generation is decarbonized and the grid modernized, rapid electrification of buildings reduces GHG emissions and allows buildings to become grid assets that can play a role in managing electric load as discussed in strategy 4.

New building construction only accounts for about 1% of the total building stock nationally every year, so our approach to reducing emissions in buildings must also focus on existing stock.⁷⁰ The overarching goal for new and, where feasible, existing buildings is to transition to be net zero carbon (NZC) emissions. *NZC buildings are so energy efficient to operate that onsite or offsite renewable energy can offset total energy use over a year's time period.*⁷¹ Some newer buildings are so efficient that rooftop solar panels can make the building net positive energy production over a year-long period, even in Bellingham.⁷² In order to reach NZC, these buildings maximize energy efficiency, install renewable energy generation as practical, and/or procure offsite renewable energy.⁷³

A building with a positive energy profile can be used to offset embodied carbon (carbon in construction materials and the building process), or power an EV. New building materials are being developed that will reduce embodied carbon. For example, cross-laminated timber (CLT) is increasingly being produced by the timber industry and used in buildings as a replacement for high-carbon materials like steel and cement. Use of CLT in buildings would also support Whatcom's local forest industry.

Energy efficiency has long been the first step in reducing energy use in existing buildings. An evaluation of whole building performance includes peoples' needs, the electrification of major appliances, readily available grants and financing, and the potential for carbon reduction. Energy improvements may involve upgrades to insulation, windows, doors, and lighting, as well as energy efficient furnaces and

⁷⁰ Calculation of 1% based on US Census data: <https://www.census.gov/quickfacts/fact/table/US/HSD410218> and <https://www.census.gov/construction/nrc/pdf/newresconst.pdf>

⁷¹ Shifting to Zero: Zero Carbon Building Policy Toolkit, Shift Zero, www.shiftzero.org

⁷² TC Legend Builds Homes for a Carbon Neutral Future; <https://www.tclegendhomes.com/>

⁷³ Shift Zero Policy Toolkit, <https://shiftzero.org/toolkit/>

water heaters. Increasing social equity and improving occupant health should be emphasized. Community organizations, like the Community Energy Challenge, Opportunity Council and PSE's Efficiency Boost program provide energy audits, rebates, and low-income weatherization assistance. In addition, Sustainable Connections sponsors a Green Building Slam⁷⁴ every year to educate the public on energy efficient buildings.

Space heating/cooling and water heating on average account for 70% of energy consumption in U.S. homes.⁷⁵ Water heaters and gas furnaces that are at the end of their life span should be replaced with new high-efficiency electric appliances wherever possible. Water heaters do not need to heat water 24 hours per day, every day. Modern, smart water heaters can pre-heat and store hot water before daily periods of peak demand, which can be coordinated in areas where utilities offer demand response programs. The benefit is less cost to the consumer and the water heater can be used as grid asset to manage the peak electricity load.

**The Importance of Addressing
Existing and Older Buildings**

"I ran numbers recently on an 1100 sq/ft home that was built in 1878. It was using 16 times the energy compared to today's code-minimum homes. Changing out its old oil heater in favor of a ductless heat pump, with no changes to the envelope, would reduce the carbon use of the home by about 70%, based on the current fuel mix in Washington." Ted L. Clifton, Clifton View Homes, Coupeville, WA.

New electric heat-pumps, have energy efficiencies of up to 300% and are capable of both heating and cooling, saving energy and reducing fossil fuel use. Cooling will become more important as summer temperatures rise and wildfires create air pollution during late summer and fall. Many new HVAC (Heating, Ventilation, Air Conditioning) systems incorporate the latest air filtration to improve public health, particularly for those who need it most. Even if an aging gas furnace is still functioning, electric heat-pump based "mini-splits" (also called ductless heat pumps) can significantly reduce the use of natural gas, provide zonal heating and cooling, and reduce overall energy use. Mini-splits are cost-effective, easily installed, and can be added incrementally – thus enabling more rapid electrification and reduction of GHGs.

The initial cost of new HVAC systems is often an obstacle, so financing is a critical component of their adoption. The Property Assessed Clean Energy program, or PACE, actively used in several states, but not in Washington, allows participants to finance energy efficiency and renewable energy projects through property assessments that last the functional life of a project. So, if an owner upgrades to a high-efficiency heat pump that has a 15-year life span, payments become part of the property assessment that transfers to a new owner if the property is sold. This program allows owners to install energy efficiency improvements to reduce their energy costs, even if they plan to sell the property in the near future (a frequent obstacle to upgrading). Legislation called C-PACER for commercial properties was passed by the state legislature in 2020 but vetoed due to COVID-19 budget constraints. Regardless, Whatcom County is piloting a C-PACER program in 2021 that will accelerate energy efficiency

⁷⁴ <https://sustainableconnections.org/events/green-building-slam/>

⁷⁵ Use of Energy Explained. Energy use in homes, Energy Information Administration.
<https://www.eia.gov/energyexplained/use-of-energy/homes.php>

improvements. To underscore, *more and better financing is critical*, and promotes equity for low-income households.

Building codes are the most effective tool for creating energy efficiency and are essential for meeting the 2030 GHG targets and beyond. According to the U.S. Department of Energy, today's energy codes provide over 30% energy savings compared to codes of a decade ago,⁷⁶ saving approximately \$5 billion annually in operation cost. The County incorporates new building codes adopted by the state of Washington and recognizes the need for increasing resilience from natural and climate impacts.

Energy efficiency upgrades should also consider GHG emissions. *Instead of using kilowatt-hours and therms saved, energy efficiency success should be measured by carbon emissions reduced.* This type of measure would likely favor electrification, as has been the case with the Sacramento Municipal Utility District,⁷⁷ and can incentivize lower carbon intensity in the existing building stock. Climate change and population growth suggest that much more is needed to make buildings grid assets and resilient to natural and man-made disasters.

Key Priorities for Net Zero Carbon Emissions from Buildings:

- *Develop a robust financing plan that 1) supports major electric appliance upgrades, 2) promotes the transition of buildings to net zero carbon emissions operations and 3) is equitable for low- or fixed-income households.*
- *Support and work with nonprofit organizations to expand energy efficiency upgrades and electrification of space and water heaters to residential and commercial buildings.*
- *Implement latest WA state building codes into County building codes, with NZC and all-electric by the 2027 code where electricity distribution is available.*

Strategy 6: Pilot Key Concepts to Reduce Electricity and Buildings GHG Emissions Through Demonstration Projects that Can Scale Up Rapidly.

Many of the strategies outlined for electricity and buildings are innovative examples from industry leaders and promise to deliver great benefits in our efforts to reduce GHG emissions. They continue to build on current best practices and on the latest science and engineering breakthroughs. But because they are new, many of them have not been proven at large scale. Rather than wait for large-scale demonstrations that we can follow, we need to take the lead and implement the most important technologies in these strategies as small demonstration projects that will provide experience, public acceptance, and make it easier to scale-up rapidly in the future.

Grid flexibility is the core to resilience and to the deep decarbonization needed to meet our targets.⁷⁸ Making buildings grid assets is an important part of a modern, flexible grid. Upgrading building energy

⁷⁶ Building Energy Codes Fact Sheet, US Department of Energy: <https://www.energy.gov/eere/buildings/downloads/building-energy-codes-fact-sheet>

⁷⁷ SMUD first in US to change efficiency metric to "avoided carbon," The new metric expected to encourage building electrification. <https://www.smud.org/en/Corporate/About-us/News-and-Media/2020/2020/SMUD-first-in-US-to-change-efficiency-metric-to-avoided-carbon>

⁷⁸ Imhoff, Carl. "Grid Modernization Implications for WA State Energy Strategy," PNNL, October 9, 2020.

systems leverages both public and private investments to develop a smart modern grid with efficient appliances that can be managed individually or together in groups for greater impact.

The following sample projects are designed to explain and demonstrate the potential for reducing GHG emissions as existing buildings become grid assets. These projects also kick-start strategies 3 and 5 to electrify existing homes and buildings, strategy 4 to add DERs throughout the community in an equitable manner, and strategy 2 to create resilience hubs that are self-sustaining during emergencies, but also provide low- and middle-income residents with low-cost renewable energy on a daily basis.

1. *Electrification Prequalification Project*

Define electrification incentives for high-efficiency heat pumps (for hot water and HVAC) to enable more rapid market adoption. Prequalify heat-pump products, installers, and associated financial incentives for use by Community Energy Challenge analysts to speed new appliance deployment and market transformation. Prequalified products will have built-in demand response capability for future DR programs.

2. *Solar/Battery Microgrid Project*

Demonstrate daily peak shaving and reduced load on the distribution grid, plus provide backup to the building's critical loads during power disruptions for selected homes. Install microgrid (energy manager, smart inverter) and renewable energy generator (solar and/or battery). Split federal/state incentives between solar and battery to stimulate deployment of distributed energy storage throughout the grid as prices continue to decline in the future.⁷⁹

3. *Resilience Hubs Project*

Fund a project to identify and prioritize potential resilience hub sites for critical community services in Whatcom County.⁸⁰ Consider both public and private community services, similar to examples from the state of Maryland's Resiliency Hub Grant Program⁸¹. Resilience hubs use large microgrids with DERs to meet community needs for improving equity and social justice (e.g., community solar), providing important resilience during disruptions to the grid, and reducing GHGs daily with renewable energy and efficiency. Whatcom County must lead by example, implementing its most important resilience hub site quickly. Funding should be sought for other top priority hub sites and coordinated with the State's Office of Disaster Resilience.

Key Priorities for Demonstration Projects:

- ***Design and implement demonstration projects that will rapidly advance strategies 3 through 5 in a manner that promotes public acceptance and equity.***

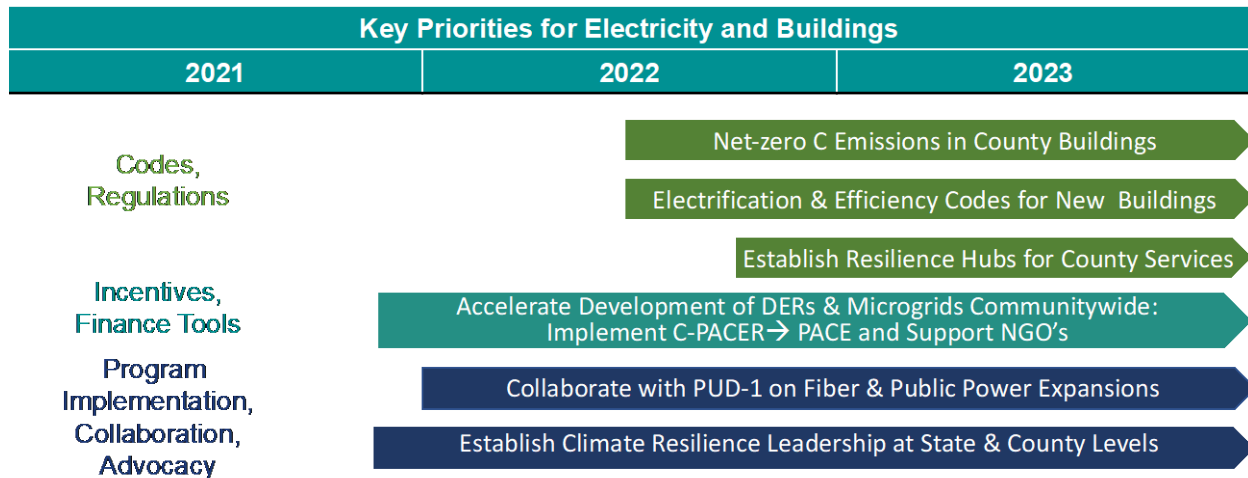
⁷⁹ Emerson, Joe. "Ted Clifton on Zero Energy Plans and the Future of Zero Energy Homes," Zero Energy Project, September 2017; Also confirmed in 2021 per email from Ted L. Clifton, Coupeville, WA, DOE Award Winning Builder in Pacific Northwest has advocated this since at least 2017.

⁸⁰ Consider California's "Resilience before Disaster – The Need to Build Equitable, Community-Driven Social Infrastructure" as a guide in the evaluation.

⁸¹ <https://energy.maryland.gov/Pages/Resiliency-Hub.aspx>

- *Plan and implement a resilience hub at the most important County site to reduce long-term energy operating costs, provides critical backup during power outages, and demonstrates the value of buildings as grid asset.*

Timeline and Summary of Strategy, Actions, and Benefits



Electricity and Buildings Strategies, Actions, and Benefits

1. Assert County leadership in state legislation, regulatory matters (WUTC and Commerce), and electric utilities operations that enables implementation of Whatcom climate strategies and facilitates a 45% reduction in GHGs by 2030.	
Actions	Benefits
1.1 Climate advisor participation in WUTC rule making and legal proceedings examining utilities compliance with CETA. 1.2 Support state-wide legislation through testimony/ letters that will help achieve GHG goals for 2030 (e.g., VNM, ⁸² PACE). 1.3 Pass a resolution to co-fund a municipalization study with Whatcom PUD-1 that would accelerate the use and development of renewable energy and give residents options. 1.4 Identify areas where large scale solar and land or offshore wind could be located and facilitate county regulations for deployment. 1.5 Partner with PSE and/or public utilities and residents with cost-competitive utility scale options for renewable energy.	<ul style="list-style-type: none"> • Provides competition to lower consumer electricity costs while at the same time expanding renewable electricity. (1.1, 1.2, 1.3) • A Board with local experts can help guide and accelerate clean electricity for all Whatcom County residents (1.3) • Virtual Net Metering/community solar allows renters and low-income households to access renewable energy. (1.5, 1.6) • Actions directly address equity issues and accelerate use of renewables. (1.2,1.3) • Creates new local jobs. (1.2,1.5)
2. Create resilience hubs for key community services throughout the county. Collaborate with utilities to identify needed Transmission and Distribution investments.	

⁸² VNM is Virtual Net Metering is required in many states, but not Washington. VNM is an accounting/billing process that is offered by some utilities, such as the Snohomish PUD and OPALCO, to compensate customers who have partial ownership in community solar or wind projects. This mechanism can provide equity to customers who rent or cannot afford rooftop solar.

Actions	Benefits
<p>2.1 Work with communities in the County to identify public buildings, such as schools, fire departments, etc., for potential community solar/battery projects and resilience hubs.</p> <p>2.2 Fund a study to evaluate and prioritize resilience hubs and microgrids (identified in 2.1) to fortify key emergency and public services and provide clean energy power in the event of a disaster and community benefits during normal times.</p> <p>2.3 Promote underground utility lines in areas of the county where frequent outages occur due to downed distribution lines (or target emergency battery backup where needed).</p>	<ul style="list-style-type: none"> • Better address customer electricity needs across the county and provide climate resilience. (2.1, 2.2, 2.3) • Allows the county to focus efforts on areas that are currently underserved and create more equity. (2.2) • Creates local jobs (2.1, 2.3)

3. Lead by example: electrify end uses in County government buildings, install renewable energy and energy storage where feasible to reduce energy operational costs and GHG emissions.

Actions	Benefits
<p>3.1 Develop a multiyear master plan for upgrading/consolidating county government facilities while meeting GHG targets.</p> <p>3.2 Work with the utility to install behind the meter battery storage systems, rooftop solar on county government buildings and EV charging infrastructure.</p> <p>3.3 Commit to NZC emissions for new county government buildings and facilities.</p>	<ul style="list-style-type: none"> • Take advantage of the window of funding over the next few years from state, federal, and private foundations. (3.1, 3.2, 3.3) • Batteries and rooftop solar show a commitment to saving operating costs and leadership in promoting a local clean energy economy. (3.2) • Transparency and urgency needed to address climate change. (3.3)

4. Focus on *buildings as grid assets* to maximize the grid's reliability and resilience. Accelerate the use of clean Distributed Energy Resources (DERs) and microgrids to reduce peak electricity demand, optimize the grid, and provide electricity to the most important end uses when the utility grid is down.

Actions	Benefits
<p>4.1 Advocate the use and demonstration of demand response with local utilities to reduce daily peak electricity and modernize control of the grid.</p> <p>4.2 Pass a resolution to support PUD-1 broadband deployment to facilitate DERs.</p> <p>4.3 Identify electricity distribution limitations where DERs and microgrids should be added to promote climate resilience.</p> <p>4.4 Deploy energy storage in targeted locations where batteries can provide more than one function (i.e., peak demand reduction and outage backup).</p> <p>4.5 Pilot C-PACER program in 2021, PACE in 2023.</p> <p>4.6 Maintain a publicly available dashboard of up to date, DERs and grid-connected renewable energy resources over time against target GHG emissions to show progress.</p>	<ul style="list-style-type: none"> • Optimize grid to accommodate EVs and gas appliance conversion to electricity. (4.1, 4.2) • DERs can postpone investments in distribution lines and reduce peak electricity demand, while providing clean power (and backup power) to underserved areas. (4.3, 4.4, 4.5) • Provide intraday storage of energy from intermittent renewable resources. (4.1, 4.4) • Creates new jobs in <i>clean</i> energy. (4.4, 4.6) • Allows building owner, regardless of income status, to defer the upfront cost of efficient electric space and water heating <i>accelerating adoption</i>. (4.6, 4.1) • Transparency and accountability (4.1 through 4.6)

5. Moving to net zero: upgrade existing buildings by collaborating with local NGOs to accelerate energy efficiency upgrades. Require new buildings to be net zero carbon emissions capable no later than 2027.

Actions	Benefits
<p>5.1 Fund a local NGO to develop a plan to pre-qualify heat pump products, installers, and suggest financial incentives/policies for County review and approval.</p> <p>5.2 Require/subsidize the installation of high efficiency electric heat pump water heater or furnace in existing buildings when replacement is needed.</p> <p>5.3 Develop a robust financing plan based on financial need that 1) supports major electric appliance upgrades, and 2) transition to NZC operations.</p> <p>5.4 Increase support of non-profit organizations that provide energy efficiency upgrades to residential and commercial buildings.</p> <p>5.5 Implement the latest WA state building codes into county building codes, with NZC and all-electric furnace and water heater by the 2027 code where possible.</p> <p>5.6 Educate the public and builders on the value of NZC homes and buildings and available financing.</p> <p>5.7 Explore options that reduce embodied carbon in building construction.</p> <p>5.8 Transition from kilowatt-hours and therms saved to carbon emissions reduced as the measure of success for energy efficiency programs.</p> <p>5.9 Develop policies and standard building plans for fast-tracking NZC building permits.</p>	<ul style="list-style-type: none"> • Ensures that buildings and homes are energy efficient, lowers operating costs for owners, decreases impact on the electrical grid and reduced GHG emissions. (5.1 thru 5.9) • Electrification reduces indoor air pollution and health risks. (5.2) • Focus funding and efforts to create equity in underserved and low-income communities. (5.2, 5.3, 5.4) • Transparency and urgency needed to address climate change. (5.9)

6. Pilot key concepts to reduce electricity use and building GHG emissions through demonstration projects that can scale up rapidly.

Actions	Benefits
<p>6.1 Convene a workshop to identify and prioritize a list of possible projects, including partners (i.e., utilities, NGOs, etc.) and with special attention to funding sources. Also use this workshop to identify initial candidate resilience hub sites (strategy 2).</p> <p>6.2 Identify an ad hoc task force of local experts to produce a comprehensive plan for reducing carbon emissions from existing and new buildings.</p> <p>a) Evaluate solar + battery microgrids for daily peak shaving and grid services, and backup during disruptions.</p> <p>b) Evaluate the benefit of a full-featured home energy management system consisting of “smart” appliances under local control, utility control, or a combination.</p>	<ul style="list-style-type: none"> • Opportunity to educate officials, businesses, and the general public on energy efficiency and new building techniques that lead to NZC. It is also an opportunity to identify partners and sources of state and federal funding. (6.1, 6.2) • Demonstrate cost-benefits and leverage early adopters in private sector (and their investments), thus accelerating market changes. (6.2) • Projects can be used to evaluate and justify new policies/incentives at the county level. (6.1, 6.2) • Project plans are developed rapidly in conjunction with an ad hoc group of local experts and stakeholders and could be planned in multiple phases with review against milestones. (6.1, 6.2) • These early demonstration projects leverage expected trends in price-performance of key technologies and standards that can then be more broadly implemented more quickly as marketplaces mature. (6.1, 6.2)

Conclusion

Most of the electricity we use is consumed in our buildings. We must modify our buildings to use less energy and ensure their energy mix is green. To achieve the energy transition our state has mandated, it requires we utilize electricity and buildings as grid assets. The best way to achieve our goals is to rapidly electrify end uses while simultaneously removing fossil fuels from the electrical grid as articulated by the US and Washington state energy strategies.

This discussion on Electricity and Buildings focuses on how to reduce GHG emissions using financing solutions, code revisions, and technologies already used by other communities; strategies for enhancing social equity during the transition; and new technologies such as distributed energy generation and storage. Electrification of our buildings is particularly promising since we have many tools – incentives and regulatory measures, by which to assist in a just transition away from fossil fuels.

We believe that some of the simplest recommendations can be implemented to bring down GHG emissions while tackling the planning and policy work required to enable the shift to occur by 2030.

Industry

Whatcom County has a GHG problem greater than many of the counties in the state. Cherry Point is home to two refineries, an aluminum smelter and a gas-fired thermal power plant that combined, were responsible for an astounding 51% of Whatcom County's GHG emissions in 2017 (Figure 2.2). There are three counties in Washington State with this concentration of GHG pollution and all are home to one of the five refineries. They include Whatcom, Skagit, and Pierce Counties.

Point-source emissions are those GHG emissions released from manufacturing processes and are defined by the US Environmental Protection Agency (EPA) as "any single identifiable source of pollution from which pollutants are discharged, such as a pipe, ditch, ship or factory smokestack." Industries that produce 25,000 metric tons (MT) of CO₂ equivalent (CO₂e) emissions yearly are required to report their emission data to the US EPA.

*Emissions from industrial buildings' energy use for heating, lighting, etc. that are **not** part of manufacturing processes are included in the previous chapter under building energy use.*

For decades our refineries and former aluminum smelter have provided immense economic benefit to the County and its citizens, but they also have been major contributors to climate change. This puts us in a paradoxical situation. The community is working diligently to reduce its GHG emissions, but our point-source industries still are discharging massive quantities of GHG pollutants into our atmosphere, making it impossible to reach net-zero emissions by 2050 without dramatic changes.

The worldwide transition to a clean energy economy is ramping up rapidly and this is a pivotal moment for Whatcom County to assert leadership to improve our environmental and economic future. It's a worldwide competition and our hope is that Whatcom County will act on this unique opportunity.

State and County Roles

Washington derives its authority to regulate GHG emissions from the US EPA. The Washington State Department of Ecology requires entities that emit 10,000 tons per year of CO₂e to comply with state reporting and recordkeeping for GHGs. In 2016 Washington's Department of Ecology adopted a Clean Air Rule that established GHG emission standards for "petroleum producers and importers" among other entities. The rule was challenged in 2018 but in January 2020 Washington's Supreme Court ruled that the State has the authority to regulate direct (point-source) emissions. The rule requires direct emitters reduce GHG emissions by 5% every three years. This reduction can be satisfied by purchasing credits.

Unfortunately, a 1.7% reduction in GHG emissions annually by point-source emitters hardly addresses the urgent nature of our climate crises and would only reduce these emissions by 14% by 2030 using these emission goals. Far more than incremental reductions are needed to reduce these immense point-source GHG emissions.

The State Department of Commerce recently released its 2021 State Energy Strategy. In the effort to deeply decarbonize, the state's strategy promotes the development of clean fuel refining and carbon capture, storage and utilization (CCSU) and focuses on the production of green hydrogen and renewable fuels from biomass among numerous other innovative goals.⁸³ Washington's recently enacted low carbon fuel standard will only increase the demand for renewable fuels.

⁸³ Washington 2021 State Energy Strategy, Department of Commerce. December 2020.

The Washington [Climate Commitment Act of 2021](#) is a comprehensive cap and invest system that will go into effect January 2023.⁸⁴ This Act will establish a [cap and trade emissions market](#) in the state. Industries that emit 25,000 metric tons of GHGs or more will receive free emissions allowances equal to their emissions in 2022. The refineries at Cherry Point are subject to foreign and out-of-state competition and fall under the category of “Emissions-Intensive Trade-Exposed” (EITE) in this Act. EITE industries will receive free GHG credits through 2035 and not be subject to the cap on emissions to prevent relocation to non-regulated regions. Regardless of the EITE exception, this Act sets up a timetable for reducing GHG emissions and may increase the transition to renewable energy. The State’s leadership and commitment to implementing bold solutions to our climate problems should inspire and motivate our County leadership ambitions.

Whatcom County also has a role in regulating Industrial point-source GHG emissions through its zoning codes and the authority the State has granted in administering the State Environmental Policy Act or SEPA. The recently passed “Cherry Point Amendment” will require a conditional use permit for the expansion of existing fossil fuel refineries that will result in a cumulative increase by more than 10,000 barrels per day of crude distillation capacity or transshipment capacity. New fossil fuel refineries, piers, docks, or wharves are prohibited at Cherry Point as well as coal-fired power plants. Conversion of a renewable fuel refinery or renewable transshipment facility to fossil fuel is also prohibited.

The new Cherry Point zoning ordinance allows manufacturing, fabrication, printing, storage, boat building and repair, and solid waste handling facilities. New power plants are only allowed in the heavy industrial zone at Cherry Point and cannot use coal as a feedstock.

Whatcom County has the opportunity to create an historic solution to this industry problem. In order for Whatcom County to reduce its GHG emissions, the industries responsible for point-source emissions need to use new greener technologies for refining processes now, and plan to respond to future demands by reducing the production of refined petroleum products⁸⁵ as internal combustion engine (ICE) technology and gasoline continue to lose market share.⁸⁶

Skilled Workforce Development

Whatcom County has a long history of supporting energy production. It has been home to a petroleum refining economy since the mid-1950s starting with the construction of the Phillips 66 plant and followed in the early 1970s with the addition of the *bp* plant. These two Fortune 500 companies support over 2,600 high-paying manufacturing jobs and have created a significant portion of our economic prosperity.⁸⁷

As the world accelerates its efforts to reach net-zero emissions in the coming years petroleum consumption will decline as will refineries and refinery jobs. This fact was confirmed in a recent study that showed over the coming decade, the fossil fuel industry is expected to lose about 140 jobs per year in Washington.⁸⁸ *bp*’s corporate announcement to reduce their fossil fuel production worldwide by 40%

⁸⁴ Yoder, Kate, “After a decade of failures, Washington state passes a cap on carbon emissions,” April 27, 2021, Grist. <https://grist.org/economics/after-a-decade-of-failures-washington-state-passes-a-cap-on-carbon-emissions/>

⁸⁵ Feinstein, Laura, and Eric de Place, “Northwest states need a plan to move beyond gas,” December 9, 2020, Sightline

⁸⁶ Newman, Rick, “Gasoline is becoming worthless,” February 3, 2021, Yahoo! Finance News,

⁸⁷ Employment at Cherry Point by the Center for Economic and Business Research, Western Washington University, March 2019. [https://cbe.wvu.edu/files/2019 Cherry Point Employment Impact Study.pdf](https://cbe.wvu.edu/files/2019%20Cherry%20Point%20Employment%20Impact%20Study.pdf)

⁸⁸ Pollin, Robert, Heidi Garrett-Peltier, and Jeannette Wicks-Lim, 2017. “A Green New Deal for Washington State.” University of Massachusetts Amherst, <https://www.peri.umass.edu/publication/item/1033-a-green-new-deal-for-washington-state>.

over this decade will undoubtedly reduce their workforce – unless *bp* simultaneously invests in new clean fuels production.

A key requirement for attracting new industries to Whatcom County is creating and maintaining a skilled workforce. Workforce development must be at the forefront of County economic development efforts. Washington state and the federal government are continuing to invest heavily in preparing workers for the growth in clean energy jobs (Figure 2.11). Whatcom County is fortunate to have the Bellingham Technical College and the Whatcom Community College which offer continuing educational opportunities for skilled workers.

Maintaining a skilled workforce in turn requires living wage jobs. Vicinity Motor Corporation (VMC) broke ground recently in Ferndale to build an electric bus assembly facility. Initially this 58,000 square foot building will support 20 clean technologies jobs with plans for expansion. Silfab Solar in Bellingham, a solar panel manufacturer, will be expanding in Skagit County due to a lack of available space in Whatcom County. In addition, Phillips 66 and *bp* continue to talk about developing a solar installation at Cherry Point to generate clean electricity for their processes. It is unclear whether or not the Regional Economic Partnership has a strategy for replacing the jobs that were lost when the Alcoa Intalco Works shuttered.

One area of the clean energy sector that is growing fast in Whatcom County is solar and heat pump installation. The recent heat wave and smoke from forest fires has caused a local boom in electric heat pump-based cooling and heating units. Skilled electricians and installers are central to these residential and commercial installations as they will also be in demand as the US expands and modernizes the electric grid and develops utility-scale renewables.

We must consider the many attributes of Whatcom County that can attract new carbon-free industries. PUD1 offers clean electricity that can be used in manufacturing processes and reduce the company's carbon footprint. Our agriculture and forest products industries can help supply the feedstocks for clean fuels and new sustainable building products. Our ports and rail systems provide transportation for new products. And finally, the outdoor recreation opportunities, resources and climate provide the high quality of life important to many families and skilled workers.

2017 Assessment for Point-Source GHG Emissions

As mentioned previously, the County's point-source emissions from industry were not included in the 2007 Whatcom County Action Plan (CAP) because disclosure of this information was not required until 2010. Table 2.1 shows 2017 emissions by specific point-source industries; they total 3,862,348 MT CO₂e. Since the completion of the GHG Inventory, the Alcoa Intalco aluminum smelter halted production in 2020. With this closure, point-source emission countywide will drop by over a million metric tons of

2019 Washington Clean Energy Jobs

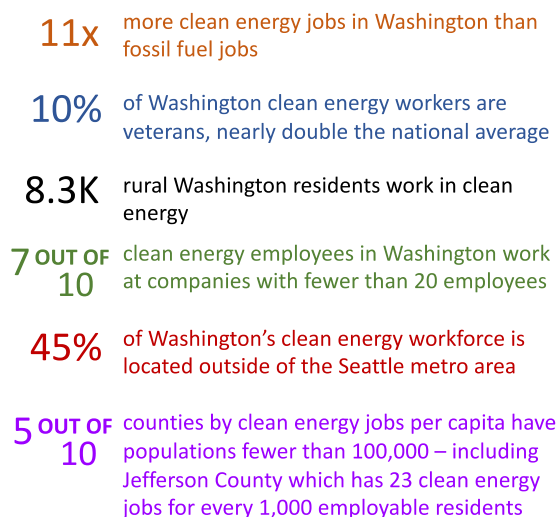


Figure 2.11. Assessment of Clean Energy Jobs from 2021 Washington State Energy Strategy

CO₂e in future GHG assessments. Unfortunately, that substantial reduction was associated with the loss of over 700 jobs.

Table 2.1. 2017 Industrial Point-Source Emissions by Source and by Facility (in Mt CO₂e)⁸⁹

Sources of Emissions	Alcoa Intalco	Bp Cherry Point Refinery	NW Pipeline GP Sumas C/S	Phillips 66 Ferndale Refinery	Whitehorn Generation Station	Totals (by emission sources)
Stationary fuel combustion	N/A	1,251,561	N/A	383,963	1,715	1,637,239
Aluminum production	1,025,298	N/A	N/A	N/A	N/A	1,025,298
Petroleum refineries	N/A	239,213	N/A	305,344	N/A	544,557
Petroleum & natural gas systems	N/A	N/A	3,903	N/A	N/A	3,903
Industrial waste landfills	9,648	N/A	N/A	N/A	N/A	9,648
Hydrogen production	N/A	641,703	N/A	N/A	N/A	641,703
Totals (by facility)	1,034,946	2,132,477	3,903	689,307	1,715	3,862,348

From the data in the Table 2.1, it is clear that *bp* is the single greatest point-source emitter of GHGs in the County and also in the state during 2017. *bp* is a larger refinery and emits nearly three times the amount of GHGs as Phillips 66's refinery. Therefore, *bp*'s Whatcom County-generated GHG pollution poses a serious, long-term problem for our community. Hopefully, this may simultaneously provide a remarkable opportunity to partner with *bp* to facilitate the transformative change that is necessary to meet the challenges of global warming. The ultimate goal is to facilitate the transition to low-emission industries by promoting green technologies as well as the sustainable energy jobs it will create for Whatcom residents.

As mentioned in [Section 1](#), *bp* is supporting a major shift to renewable energy production. Their intention is to reinvent *bp* and reduce their GHG emissions to net zero by 2050 or sooner. This includes reducing their oil production 40% and investing \$50 billion this decade. *bp* intends to spend 80% of this \$50 billion by 2025 and grow their hydrogen operations.⁹⁰ In addition, they plan to partner with 10 to 15 major cities around the world.⁹¹ As *bp*'s US headquarters, *bp* partnered with the City of Houston to implement its climate action goals and is providing a \$2 million grant and two staffers to the Houston's Office of Sustainability to that end.⁹²

⁸⁹ Table 2.2 from Cascadia Consulting's GHG Inventory

⁹⁰ Blackmon, David, "bp Commits Big Investments Towards Its 'Net Zero Emissions By 2050' Target," October 10, 2020, Forbes. <https://www.forbes.com/sites/davidblackmon/2020/08/04/bp-commits-big-investments-towards-its-net-zero-emissions-by-2050-target/>

⁹¹ Lin William, "Partnering with countries, cities and industries," September 2020, *bp* week. <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bpweek/bpweek-partnering-with-cities-countries-industries.pdf>

⁹² "City of Houston Partners with *bp* to Advance Climate Action Plan Goals," Mayor's Office Press Release, July 22, 2020.

These actions are strategic on *bp*'s part, not just a sudden conversion to environmental values but an economic necessity. Weak natural gas and crude oil prices are a harbinger of the future for the industry. According to the law firm Haynes and Boone, in the first eleven months of 2020 forty-five oil and gas companies filed for bankruptcy.⁹³ Simultaneously wind and solar technologies are surging and will be further supported in future infrastructure bills which include efforts to remove electricity generated from fossil fuels from the grid by 2035 and strictly regulate methane emissions.⁹⁴

Despite *bp*'s international aspiration, their Whatcom County refinery has not yet announced any effort to reduce its GHG emissions. It is hoped that *bp*'s Cherry Point refinery would address this problem. The VP of Corporate Analysis at Wood MacKenzie describes *bp* as the only organization of its "stature that has gone so far, or committed so unequivocally, to transforming itself in the face of the energy transition."⁹⁵ Therefore, *bp* should be open to a conversation about their local emissions and possible solutions. If corporate headquarters is buying charging stations, partnering to create large amounts of green hydrogen, funding major American city's Climate Action Plans, reducing oil production, eliminating all new exploration, and divesting itself of \$25 billion in assets over the next five years, then the Cherry Point facility, the newest refinery in the United States, should be thinking about innovations to reduce its GHG emissions.

Goal and Strategies for Industry

Goal: Eliminate 90% of the GHG emissions from the refineries by 2050.

It is internationally acknowledged that the world's energy sector must be transformed rapidly to meet our collective goal of preventing a 2°C (3.6°F) increase in global temperature above pre-industrial levels. That translates into a goal of a 95% reduction below 1990 CO₂ levels by 2050. Remarkably, most of the nations of the world are now working to vastly overhaul their fossil-fuel-based economies in less than 30 years.

Whatcom County's refinery-derived CO₂ emissions pose a considerable challenge to meeting that goal and hence we offer detailed strategies designed for our specific situation. All strategies are offered from a collaborative mind set, utilizing creative problem-solving, and underpinned by an optimistic vision of what a carbon-neutral energy industry could look like.

Strategies for Industry

1. Facilitate a solutions-focused collaboration with *bp*'s Cherry Point plant manager, energy experts in academia, and state and federal governments to discuss ways to achieve a 50% reduction in their point source GHG emissions by 2030.
 2. Promote the research, development, and collaboration needed to build a hydrogen electrolysis facility to create green hydrogen in Whatcom County.
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⁹³ Lefebvre, Ben, and Kelsey Tamborrino, "Trump's unplanned gift to Biden: Clean energy on the rise," December 29, 2020, <https://www.politico.com/news/2020/12/29/trump-biden-clean-energy-451546>.

⁹⁴ Ibid.

⁹⁵ Blackmon, "*bp* Commits Big Investments Towards Its 'Net Zero Emissions By 2050' Target".

Strategy 1: Facilitate a solutions-focused collaboration with *bp*'s Cherry Point plant manager, energy experts in academia, and state and federal governments to discuss ways to achieve a 50% reduction in their point source GHG emissions by 2030.

Whatcom County's goal should be to aid in any possible manner the implementation of the greenest technologies available to reduce GHG emissions from our refineries, particularly *bp*. Such a public-private collaboration, focused on designing and implementing pathways to carbon neutral solutions, has the potential to benefit all parties and aligns with the climate goals of Whatcom County, Washington State, the federal government and *bp*'s net-zero ambitions.

The purpose of an in-depth discussion with *bp* is to motivate this international organization to specifically focus on its GHG emissions impacts to Whatcom County, Washington State, and the adjacent communities of Blain, Ferndale, and Bellingham. While *bp* is the major emitter of GHGs in Whatcom County and Washington State, it is also one of the most climate-conscious petroleum companies in the world, but to date their carbon-reduction efforts have not been focused on their Cherry Point refinery. Since *bp*'s Cherry Point refinery is the newest in the nation and may be in operation well into the future, their emissions have the potential to be a chronic problem for our community. For this reason, a public-private dialogue and collaboration is warranted.

This solutions-focused discussion is needed to understand the history of previous efforts, the feasibility of possible actions, the resources required and potential sources of funding, the need for technical partnerships, and any legislative policy or appropriations needed to reduce the industry's GHG emissions.

Numerous resources are available to the County that can provide the support and creative problem solving necessary to expedite this task. They include the technical expertise of Western Washington University's Institute for Energy Studies, the University of Washington, Washington State University, the Regional Economic Partnership, and the Whatcom PUD1. This dialogue should also include appropriate representation from relevant federal and state agencies. For example, Washington State's Departments of Commerce and Ecology as well as the Governor's Office could be instrumental in aiding with resources needed to implement a significant GHG solution as could the federal government through the National Laboratories of the Department of Energy and/or the White House.

The moment is uniquely ripe for public-private collaboration given the climate focus of Governor Jay Inslee and the Biden Administration. Reducing GHG is a priority for this president who has made a commitment to a historic investment in energy and climate research and innovation. Retooling existing refining process to reduce emissions by utilizing green technologies is exactly the type of task that warrants extensive federal, state, local, and private partnership.

One area that should be discussed is enhancing energy efficiency in industrial processes. The US EPA's EnergyStar program is a voluntary program that provides energy management tools and strategies for the petroleum refining industry, among others. The program provides guidance on organization-wide energy management systems. It employs sub-metering, monitoring and control systems that can reduce the time required to perform complex tasks hence reduce energy consumption and GHG emissions.⁹⁶

⁹⁶ Worrell, Ernst, Mariëlle Corsten, and Christina Galitsky, "Energy Efficiency Improvement and Cost Saving Opportunities for Petroleum Refineries." USEPA, February 2015. p 15.

The list of potential energy reductions (and associated emission reductions) is extensive and includes suggestions related to power recovery in high pressure operations such as fluid catalytic crackers and hydrocrackers, the use of combined heat to power (CHP) cogeneration plants, or medium- to high-temperature heat pumps to electrically crack petroleum feedstock.

The Phillips 66 refinery at Cherry Point has been awarded an EPA EnergyStar certificate for their voluntary efforts to reduce greenhouse gas emissions through energy efficiency. The certification indicates that the refinery performed in the top 25 percent of similar facilities nationwide for energy efficiency and met specific environmental performance levels set by the EPA.⁹⁷ *bp* has not participated in this program but no doubt has instituted some if not many of the energy efficiencies suggested. It's highly recommended that *bp* voluntarily engage in this program to show their commitment to reducing GHG emissions in Whatcom County.

As mentioned earlier, electricity use from the grid by industry is not categorized as a point-source emission, so the use of clean electricity will not reduce this category but would reduce industrial electricity emissions that are shown in [Figure 2.6 in Electricity and Buildings](#). Currently the *bp* refinery uses energy purchased on the spot market or from PSE, neither of which provide carbon-free electricity. In fact, both sources of energy are fossil fuel intensive, and the electricity generated is usually derived from greater than 60% fossil fuel. By comparison PUD1's electricity generation is only 2% fossil fuel.

Nearly a century ago Congress authorized the Bonneville Power Administration (BPA) to sell power to utilities and a few large industries. Whatcom PUD1's electricity is purchased from BPA and provides the Phillips 66 refinery with 98% clean electricity. *bp*'s location at Cherry Point offers the company with a unique opportunity to explore utilizing low carbon electricity provided by PUD1 to effectively reduce their GHG emissions.

Whatcom PUD1 is currently engaged in strategic planning related to their electricity capacity needs for the future. The PUD1 should seriously evaluate expanding its capacity to provide significant quantities of clean, green electricity to decrease the carbon footprint of our local industries. PUD1 is uniquely positioned to provide significant climate solutions to the State and the County. And for that reason, PUD1 in coordination with the County should attempt to engage *bp*.

BPA lines currently serve the curtailed Alcoa plant, and the distance required to extend those lines to *bp* is minimal, although costly. There may be an opportunity to use the mechanisms provided by Washington State's [2021 Climate Commitment Act](#) to help finance extension of these power lines. Clearly creative thinking is warranted to reduce the more than 2 million metric tons of CO₂e emitted by *bp* annually in Whatcom County.

Ultimately, it may take the assistance of the federal government to accelerate the greening of refining processes. The federal government has long intervened in the energy market by providing tax subsidies, some of which have existed for a century.⁹⁸ Tax subsidies provide a means to encourage domestic energy production. But, in order for the tax code to align with fossil-free energy goals, tax subsidies need to be overhauled to provide incentives to reduce GHG emissions and enable new climate-compatible energy technologies. Currently the code allows companies to deduct a majority of the costs incurred from drilling new wells domestically. Instead, the federal government should subsidize the

⁹⁷ <https://www.phillips66.com/sustainability/energystar>

⁹⁸ Fact Sheet | Fossil Fuel Subsidies: A Closer Look at Tax Breaks and Societal Costs, Environmental and Energy Study Institute, July 29, 2019.

creation of utility scale renewable energy farms and/or the implementation of green hydrogen production at refineries, plus the T&D infrastructure to connect them to the NW grid.

Strategy 2: Promote the research, development, and collaboration needed to build a hydrogen electrolysis facility to create green hydrogen in Whatcom County.

Hydrogen is used predominately in petroleum refining in the hydrocracking and hydrotreating processes. It is also used in transportation as rocket fuel and in hydrogen fuel cell powered forklifts and vehicles. Although a minor component of transportation there is considerable effort to expand hydrogen use in that sector to reduce the amount of GHGs in the atmosphere. Hydrogen fuel cells are the likely replacement for diesel-powered semitrucks and trains, but also could be used for airplanes and ships. Multiple federal reports name transportation as the largest new market opportunity for hydrogen.

California has taken the lead in promoting hydrogen use. It has over 40 hydrogen fueling stations and dozens under construction to support the 7,500 hydrogen cars on the road. Los Angeles Department of Water and Power has pledged to transition to a hydrogen fueled power plant from its coal-fired Intermountain Power Plant, the first effort of this kind.⁹⁹ Airbus announced in September 2020 that it plans to develop a commercially viable, hydrogen fuel cell airplane within five years.¹⁰⁰ The first hydrogen fuel cell-powered maritime vessel was recently launched in Bellingham. Built by All American Marine and the investment company SWITCH Maritime, the ship will soon begin trips in California's Bay Area.¹⁰¹

Washington State has also seen the value of hydrogen. In 2019 Washington State authorized public utilities districts (PUDs) to produce, distribute and sell renewable hydrogen. Douglas County's PUD received \$250,000 in the 2020 Supplemental Capitol Budget for its Renewable Hydrogen Project.¹⁰² The project provides a model for other PUDs along the Columbia River but also for PUDs interested in developing solar and wind power. In September 2020 Douglas County's PUD and Toyota received a \$1.9 million grant from the Centralia Coal Transition Board to develop the first hydrogen fueling station in Washington State.

Hydrogen Varieties

The carbon footprint of hydrogen is dependent on the method of production. There are three main varieties of hydrogen that are referred to as grey hydrogen, blue hydrogen, and green hydrogen.

Currently, 95% of all hydrogen produced in the US is created through the intensive CO₂-emitting process of steam methane reforming (SMR). The resulting gas is referred to as **grey hydrogen** because of its high GHG footprint (Table 2.2). The process uses natural gas (methane) and steam (heated water) to produce hydrogen and carbon monoxide (CO). The CO converts in a subsequent reaction with steam to create CO₂ and H₂.

⁹⁹ Roth, Sammy, "Los Angeles wants to build a hydrogen-fueled power plant," LA Times, 4/10/19).

¹⁰⁰ Ryan, Charlotte and Will Mathis, "Airbus bets on hydrogen to deliver Zero-Emission Jets," Bloomberg News, 12/4/20.

¹⁰¹ Kemp, Ysabelle, "This monumental step toward more sustainable shipping taken in Bellingham," The Bellingham Herald, Aug 18, 2021.

¹⁰² Vibbert, Meaghan, "Renewable Hydrogen Production Facility Groundbreaking," March 8, 2021.

<https://douglaspu.org/Pages/Renewable-Hydrogen-Production-Facility-Groundbreaking.aspx>

Grey hydrogen generation produces large quantities of CO₂ and should not be used as a replacement for natural gas (methane). Because of this, grey hydrogen has a greater carbon footprint than using natural gas-to produce electricity.¹⁰³

Another fundamental concern is that the SMR process utilizes methane. Methane is a far more powerful GHG but has a much

shorter decay half-life in the atmosphere before decomposing to CO₂. When it leaks to the atmosphere, it traps 84 times as much heat in the atmosphere than CO₂ over a 20-year period. It is estimated that methane is responsible for 23% of all observed changes to the Earth's climate over the last century.¹⁰⁴ The point is, natural gas leakage occurs along the entire path from mining to end use and is an environmental threat along that pathway.

To reduce the amount of CO₂ released in the production of grey hydrogen, efforts have focused on carbon capture, storage and utilization (CCSU)¹⁰⁵ to reduce the environmental impact. Grey hydrogen treated by CCSU is referred to as **blue hydrogen**. CCSU is simply a process to capture the CO₂ from the SMR process and either permanently store it in deep geologic formations or utilize the CO₂ to form other products. Unfortunately, markets for such large quantities of CO₂ do not currently exist in many areas of the county, including Washington state. The economics of the carbon capture and storage (CCS) process are also daunting, requiring large amounts of energy to capture, separate, and store the CO₂. Future advances in technology may reduce the cost of hydrogen produced by SMR with CCS.

Green hydrogen is created by using emissions-free electricity (electricity generated from solar, wind, hydroelectric dams or nuclear) to run a current through water to break the bond between the hydrogen and oxygen atoms to produce hydrogen gas in a process called electrolysis. The hydrogen gas is then compressed to create a fuel that can be stored or used in fuel cells where it is converted to electricity. Water vapor is discharge as opposed to CO₂. Heavy batteries are not needed in fuel cell vehicles and hydrogen fuel is pumped similar to refueling of gas vehicles.

Currently electrolysis requires massive amounts of electricity. As a result, most electrolysis installations in Washington State are in areas where excess emissions-free electricity is available for no or low cost. This excess emissions-free electricity may come from grid curtailments of solar, wind and hydroelectricity when production of electricity exceeds the demand needed for the electric grid. For example, the 5 MW hydrogen electrolysis facility being built in Douglas County in eastern Washington will use excess hydroelectricity generated by high river flows in the winter and early spring, which are only intensifying with climate change.

Table 2.2. Calculated GHG emissions by H₂ production method. Emissions from blue H₂ can vary widely with the age and efficiency of the SMR process. Upstream methane emissions are not included in the SMR estimates.

Type of H ₂	Method of H ₂ Production	GHG Emissions (kg CO ₂ /kg H ₂)
Green Hydrogen	Electrolysis with Renewable Energy	0
Blue Hydrogen	SMR with CCS	1.7
Grey Hydrogen	SMR	9.3

¹⁰³ Rapier, Robert. "Estimating the Carbon Footprint of Hydrogen Production," Forbes, Jun 6, 2020

¹⁰⁴ https://climate.nasa.gov/climate_resources/225/video-methane-sources/, July 20, 2020.

¹⁰⁵ The US Department of Energy defines CCSU as a process that captures carbon dioxide emissions from sources like fossil-based power plants and either reuses or stores it so it will not enter the atmosphere. CO₂ storage in geologic formations includes oil and gas reservoirs, coal seams and deep saline reservoirs – structures that have stored these oil, gases, and brines for over millions of years. <https://www.energy.gov/carbon-capture-utilization-storage>

The aggressive pursuit of a green hydrogen facility is very strategic. It provides opportunities for both current and new industrial partners, thus maximizing support for Whatcom’s workforce and economy in this critical transformation period. Upgrading existing T&D infrastructure is required to support a green hydrogen facility; but also has multiple strategic benefits for any manufacturer at Cherry Point. Those include enabling large flexible industrial loads for the entire NW grid (using otherwise curtailed renewable energy that would be wasted and enabling load reduction during peak periods). These “grid services” are valuable and enable lower electrical prices in contracts. In the case of green hydrogen production, otherwise wasted renewable energy is captured and converted to an energy carrier for local storage and future distribution and use, without imposing undue demands on the NW grid. All this while making Cherry Point's skilled workforce and existing infrastructure available for product supply chains.

The Clean-Energy Potential of Green Hydrogen and World-Wide Demand

As the world becomes more and more concerned with reducing GHG emissions the demand for green hydrogen has grown dramatically to replace coal, oil, and natural gas with this carbon-free fuel. Countries around the world, various states, and numerous industries are banking on hydrogen as an energy carrier and storage medium, in places where there will be a surplus of renewable electricity available. Europe is taking the lead in developing a hydrogen economy.¹⁰⁶ France, Germany, Italy, Portugal, and Spain as part of their hydrogen strategy anticipate investing \$44 billion in green and blue hydrogen programs in the next decade.¹⁰⁷

The International Energy Agency roadmap for net zero energy by 2050 predicts that hydrogen use will increase globally from less than 90 million MT in 2020 to more than 200 million tons in 2030.¹⁰⁸ In the US, almost two thirds of the annual 10 million tons of hydrogen is used for petroleum refining. Most of the remainder is used in other industrial processes such as ammonia and methanol production, metal refining, glass production and electronics fabrication.¹⁰⁹

The cost of generating green hydrogen has fallen by 40% since 2015 and is anticipated to fall an additional 40% by the end of 2025.¹¹⁰ Hydrogen Europe, a coalition of private companies, research institutions and national agencies are working to push through the barriers of low demand for green hydrogen and lack of infrastructure to achieve their climate goals and generate a substantial number of new jobs.

bp is on the cutting edge of green hydrogen technology in Germany. In November 2020, *bp* and Ørsted announced they will collaborate on a 50 MW electrolyzer in Germany to replaced

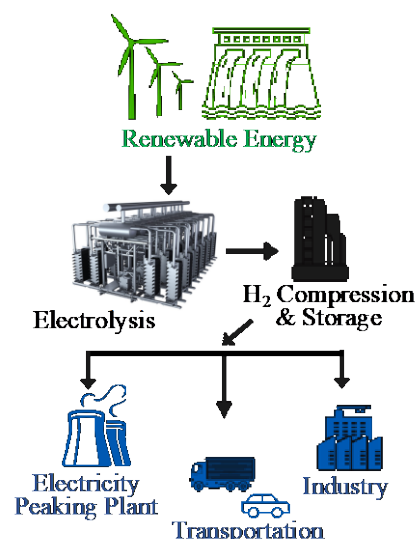


Figure 2.12. Liquid H₂ production, storage, and use.

¹⁰⁶ Amelang, Soren, “Who will be the Hydrogen superpower? The EU or China,” August 31, 2020, <https://energypost.eu/who-will-be-the-hydrogen-superpower-the-eu-or-china/>

¹⁰⁷ Adler, Kevin, “Europe emerges as leader in hydrogen economy,” December 15, 2020, [ihsmarkit.com](https://www.ihsmarkit.com).

¹⁰⁸ Ruth, M., P. Jadun, N. Gilroy, et al. 2020. The Technical and Economic Potential of the H2@Scale Concept within the United States. Golden, CO: National Renewable Energy Laboratory, NREL/TP-6A20-77610.

¹⁰⁹ Net Zero by 2050, A Roadmap for the Global Energy Sector. International Energy Agency, 2021. <https://www.iea.org/reports/net-zero-by-2050>

¹¹⁰ Ibid.

20% of the refinery's existing fossil-fuel-derived hydrogen.¹¹¹ This is *bp*'s first full-scale commercial hydrogen venture. It is anticipated to be functional by 2024. Additionally, by 2030 *bp* anticipates having 10% of the clean hydrogen market in "core hydrogen markets" as it pursues carbon-neutrality by 2050.

This is not the only hydrogen electrolysis plant in Germany. Shell is part of a consortium that is building the world's largest hydrogen electrolysis plant at its Rheinland refinery. The REFHYNE project will replace Shell's two existing SMR processes and significantly reduce its CO₂ emissions. It will also allow the company to provide leadership in the refining industry's transition to clean energy.

These and numerous other green hydrogen ventures are igniting across the world despite concerns about the cost of generating electricity to produce hydrogen. But there is increasing optimism that green hydrogen may become significantly cheaper. For example, Washington State University researchers have discovered and tested a new inexpensive catalyst for an electrolysis exchange membrane that does not rely on expensive precious metal catalysts such as platinum and iridium and also does not require use of corrosion-resistant metal plates.¹¹² Promising breakthroughs like these that lower the cost of hydrogen production need to be deployed and evaluated at scale to really fully understand the cost savings and feasibility of these new approaches.

Bill Gates and Hong Kong billionaire Li Ka-shing recently provided funds to back H₂Pro, an Israeli start up, that is using a new method to produce green hydrogen. The method reduces the energy required by adding an additional thermal step. H₂Pro anticipates making green hydrogen for \$1 per kilogram by the end of the decade, far cheaper than the \$2.5 to \$6.80 2019 price of a kilo of green hydrogen.¹¹³ If this venture is successful most of the criticism of hydrogen energy will likely evaporate. It is this type of innovative endeavor that will give *bp* a competitive edge in the burgeoning renewable fuels market of the near future.

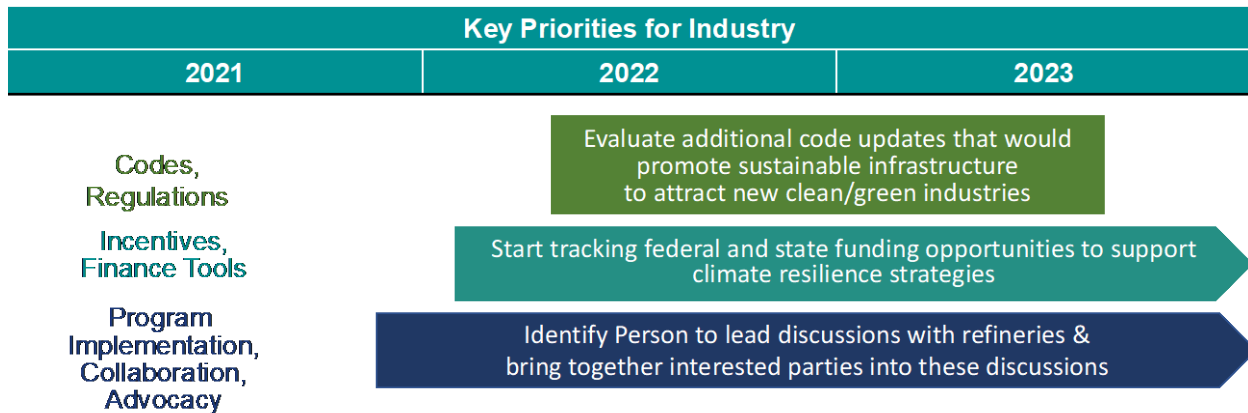
It is acknowledged that strategy 2 is the most aspirational and challenging of the strategies outlined in this chapter, but the concept is consistent with goals of numerous states and countries as well as supported by the 2021 Washington State Energy Strategy. Certainly, this strategy would warrant the full-scale support of the county, state, and federal governments as producing green hydrogen will enable numerous benefits.

¹¹¹ Parnell, John. "*bp* and Ørsted Launch Green Hydrogen Partnership," Greentech Media, November 10, 2020

¹¹² Zaske, Sara. "Water splitting advance holds promise for affordable renewable energy," WSU News, March 9, 2020: <https://news.wsu.edu/2020/03/09/water-splitting-advance-holds-promise-affordable-renewable-energy/>

¹¹³ Rathi, Akshat and Will Mathis. "Gates-backed startup joins race to make hydrogen cheaper," Bloomberg Green, March 8, 2021

Timeline and Summary of Strategies, Actions and Benefits



Strategies, Actions and Benefits for Industry

1. Facilitate a solutions-focused collaboration with <i>bp</i> 's Cherry Point plant manager, energy experts in academia, and state and federal governments to achieve a 50% reduction in their point source emissions by 2030.	
Actions	Benefits of Actions
1.1 Promote enhanced energy efficiency at <i>bp</i> 's Cherry Point refinery through recommendations outlined in US EPA's EnergyStar program.	• Reduce GHG emissions from industrial point source (1.1, 1.2).
1.2 Replace the current production and use of grey hydrogen at <i>bp</i> 's refinery with green hydrogen.	• Action 1.3 will reduce emissions from industrial buildings electricity use (insert hyperlink) but will not impact industrial point-source emissions, which only apply to manufacturing processes.
1.3 Reduce GHG emissions at <i>bp</i> 's Cherry Point refinery and at any new or expanded facility at Cherry Point by promoting and facilitating the supply (i.e., transmission) and use of fossil-fuel free electricity.	• Represent the County's interests at the state (1.4) and federal (1.5) levels, especially development of the workforce.
1.4 Develop recommendations for potential inclusion in the State's Climate Commitment Act's rulemaking process.	
1.5 Evaluate & promote possible incentives & tax subsidies at the federal level to accelerate the greening of refinery processes.	

2. Promote the research, development, and collaboration needed to build a hydrogen electrolysis facility to create green hydrogen in Whatcom County.	
Actions	Benefits of Actions
2.1 Encourage PUD1 to evaluate the access to and availability of clean electricity from BPA to develop a 100 MW green hydrogen plant in Whatcom County.	• Enabling increased T&D capacity to Cherry Point leverages access to regional electricity resources for all current and future users. (2.1)
2.2 Create a task force with PUD1, Port of Bellingham, tribal & public representation with the goal of developing a solar and/or wind energy facility.	• A green H ₂ facility will provide a large flexible load on the regional BPA grid that can negotiate lower prices for power. (2.1, 2.3)
2.3 Collaborate with PUD1 and the Port of Bellingham to reach out to known green hydrogen supporters and producers to build a new green hydrogen facility at Cherry Point.	• Produce green hydrogen for multiple new markets by leveraging existing infrastructure (shipping, transport) and skilled workforce.

2.4 Working with State, federal, PUD1 and Port, understand the necessary legislative & fiscal support needed to construct a green hydrogen plant and supporting workforce.	<ul style="list-style-type: none"> • Attract additional clean energy manufacturers to Whatcom County. (all actions)
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Conclusion

We must acknowledge the importance of this moment and let it motivate us to be as creative and strategic in designing the next steps to deeply decarbonize and transform the energy sector. We need to look with fresh eyes at new processes not merely the mechanics but the soundness of the process of each technical energy innovation. We are in fact outlining a technologic revolution to the cleanest, healthiest, and most sustainable way of doing things.

This discussion on industrial point source emissions has focused on how to reduce GHG emissions from petroleum refineries and help Washington state transition to a clean fuel economy. We believe that some of the simplest strategies can be implemented and easily bring down GHG emissions while simultaneously beginning to turn the wheels on the process of envisioning, designing, and implementing the green energy industrial sector that Whatcom County and the state of Washington needs for a healthy and safe future. This rapid transition is inevitable and necessary. But it is also a competition with winners and losers. Whatcom County must compete vigorously in order to define our path.

Transportation

Whatcom County's climate action goals, strategies, and actions are intended to reduce GHG emissions in alignment with federal, state, municipal, and other existing community efforts. The Washington 2021 State Energy Strategy describes numerous proposals (most of which require action by the Washington State Legislature) that lead to GHG emissions reductions, including many in the area of transportation.

Transportation is critical to human civilization. We must have efficient ways to move goods and people. This movement requires energy, and in our current transportation system, the primary mode of transportation is single-occupancy internal combustion engine (ICE) vehicles that use fossil fuels as an energy source. One of the major drawbacks to the use of ICE vehicles is their emissions of a variety of pollutants, including large quantities of greenhouse gases (GHGs) such as CO₂ and nitrogen oxides (NO_x).¹¹⁴

In 2017, transportation was the third largest source of Whatcom County's GHG emissions (at 13.7%); only industrial sources (50.9%) and electricity consumption (18.2%) were larger (Fig. 2.2). Because Whatcom County's transportation demand is projected to increase in the coming years with a growing population,¹¹⁵ addressing mobility needs while reducing transportation emissions should be a primary target of Whatcom County's climate change mitigation efforts.

The combustion of fossil fuels by on-road vehicles is the leading contributor to transportation emissions (see Figure 2.13¹¹⁶). Another essential component of transportation-related emissions is land use. Land use patterns, such as road networks, housing density, and zoning laws, determine transportation accessibility and behavior. Therefore, reducing transportation emissions will require changes in Whatcom County's land-use patterns. Land use issues, including those related to transportation, are addressed in detail in the Land Use [chapter](#) of this report.

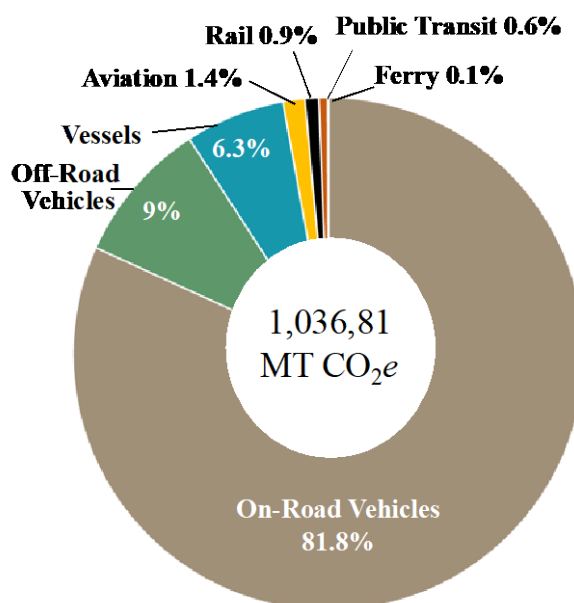


Figure 2.13: Whatcom transportation emissions in metric tons of CO₂e.

¹¹⁴ When we estimate the benefits of GHG reductions we should also include the co-benefits of reducing the health effects of local pollution.

¹¹⁵ Whatcom Council of Governments, June 9, 2017, Whatcom Mobility 2040 <https://whatcommobility.org/2040-2/2040activity/>

¹¹⁶ Whatcom County Greenhouse Gas Inventory Report, 2020, p. 12 Fig. 5. https://www.whatcomcounty.us/DocumentCenter/View/48029/WhatcomCountyGHGInventory_DRAFT_June2020 Note that "off-road" vehicles are "agricultural, construction, commercial and industrial, lawn and garden, and recreational vehicles and equipment."

Generally, there are two ways to reduce transportation emissions associated with a trip: reduce vehicle miles traveled (VMT) or reduce the emissions per vehicle mile traveled (E/VMT)¹¹⁷.

- Strategies for reducing vehicle miles traveled could be achieved in various ways, such as through land-use changes, using public transit instead of single-occupancy vehicles, or expanding remote work options.
- Strategies and actions that reduce the emissions per vehicle mile traveled include switching to alternative modes of transportation, such as bicycling and walking, or using alternative fuels for transportation, such as electricity or hydrogen.

Multiple state and local government agencies engage in transportation (and other) planning processes, all of which include consideration of climate-related issues. The goals and strategies in this Climate Action Plan are compatible with and supportive of those found in other agencies' plans.

- Many counties and cities are addressing climate change through land use and transportation planning or by adding optional elements to their Growth Management Act comprehensive plans.
- The Washington State Department of Transportation has both a Transportation Plan¹¹⁸ and an Active Transportation Plan;¹¹⁹ the latter is concerned with active transportation, defined as walking, biking or skateboarding to get from one place to another. While active transportation considerations often play a role in overall transportation planning (e.g., the inclusion of bike lanes on public thoroughfares), it is also beneficial for safety reasons to maintain active transportation routes apart from those used by motorized vehicles.
- Transportation planning in Whatcom County is overseen by the Whatcom Council of Governments (WCOG). WCOG maintains a long-term transportation plan, called the Whatcom Mobility 2040 Plan,¹²⁰ as well as shorter term (~5 years) Transportation Improvement Programs¹²¹ that prioritize projects to be undertaken. In addition, the Whatcom Transportation Authority 2017 Strategic Plan¹²² (to be replaced by in 2021 by the adoption of WTA 2040, a long-range strategic plan) incorporates climate considerations through analyses of the potential for electric buses and the installation of solar panels at major WTA facilities and bus stops.

Whatcom County's Bicycle/Pedestrian Advisory Committee is in the process of updating the County's Pedestrian and Bicycle Plan¹²³, which was last revised in 2011. In December of 2019, the City of Bellingham produced a Climate Action Task Force Report that includes recommendations regarding transportation issues, and the City also annually updates its own Transportation Improvement Program.

¹¹⁷ A simple but useful way to think about total transportation emissions (E) is as the mathematical product of vehicle miles traveled (VMT) and emissions per vehicle-mile traveled (E/VMT): $E = VMT \times (E/VMT)$. Note that the equation also implies that when E/VMT is at or very close to zero, reductions in VMT have little impact on emissions; they would still reduce traffic congestion, accidents, etc.

¹¹⁸ Washington Department of Transportation, 2015, Washington Transportation Plan 2035 <https://washtransplan.com/>

¹¹⁹ Washington Department of Transportation, 2021, Draft Active Transportation Plan, <https://engage.wsdot.wa.gov/active-transportation-plan/>

¹²⁰ Whatcom Council of Governments, Whatcom 2040 Mobility Plan. https://wcog.org/wp-content/uploads/WM40_COMPLETE.pdf

¹²¹ Whatcom Council of Governments, Transportation Improvement Programs. <https://wcog.org/planning/tip/>

¹²² Available at <http://www.ridewta.com/business/reports/plans>

¹²³ Available at <https://www.whatcomcounty.us/DocumentCenter/View/239/Whatcom-Pedestrian-Bike-Plan-PDF?bidId=>

Recent Legislation

Three important climate related bills with direct or indirect impacts on the strategies and actions contained in this document were passed by the Washington State Legislature in its recently concluded 2021 session. Two of these take direct aim at transportation emissions.

- An act relating to preparedness for a zero-emissions transportation future (HB 1287) requires state agencies and electric utilities to plan for increased EV charging capacity, requires new multifamily residential buildings to include EV charging capability, and establishes a goal that all publicly and privately owned passenger and light duty vehicles of model year 2030 or later sold, purchased, or registered in Washington state be electric vehicles.
- An act relating to reducing GHG emissions by reducing the carbon intensity of transportation fuel (HB 1091) establishes a tradeable credit based clean fuel standard and contains provisions designed to help expand EV charging capabilities, including those in underserved areas.
- The third bill, known as the Climate Commitment Act (SB5126), establishes a cap-and-trade carbon pricing system requiring that refineries (along with utilities, natural gas companies, and other facilities emitting more than 25,000 MT CO₂e) obtain tradeable permits to cover the quantity of emissions associated with the production and consumption of their products. The total number of permits issued by the state will decline over time in line with state emission reduction goals. Both SB5126 and HB 1091 contain provisions that will fund a variety of climate change related activities, including at the local level, from the revenues gained in the sale of allowances or credits. This system will result in effectively putting a price to be paid for each ton of GHGs emitted from the electricity, natural gas, and motor fuel sold anywhere in Washington, including Whatcom County.

Governor Inslee signed the legislation,¹²⁴ and this will be the start of a complicated implementation process. First, both HB1091 and SB5126 require, prior to their becoming effective, the passage of a state transportation funding act meeting certain standards. In addition, state agencies must conduct rulemakings to implement specific portions of the legislation. Rulemaking processes typically last from several months to more than a year, especially for complicated pieces of legislation,¹²⁵ and they offer opportunities for interested parties to comment on proposed regulations.

The basic purpose of carbon pricing and clean fuel standards approaches to GHG emissions reductions is to incorporate the previously unaccounted for costs of pollution into decisions made by producers and consumers, with the increased costs being passed to consumers. Producers, in trying to keep their prices lower, have an incentive to reduce emissions from production processes and, where possible, from the usage of their products. To the extent that carbon pricing results in higher final product prices, consumers have an incentive to use less of that product. One negative impact of carbon pricing is that it is regressive—it takes a larger share of low-income consumers' incomes than it takes from high-income consumers. SB 5126 contains environmental justice provisions to favor overburdened communities in the awarding of projects funded from revenues collected by the state under the legislation.

¹²⁴ The governor vetoed the portion of HB 1287 requiring EVs, along with portions of SB 5126 concerning state-tribal consultations.

¹²⁵ For example, rulemaking processes stemming from the 2019 Clean Energy Transformation Act are still underway.

At the time of this report, the legislative outcomes regarding federal climate change efforts remain uncertain, but current proposals contain a wide variety of provisions designed to decrease the shares of GHG producing fuels in our nation's energy system. Nevertheless, some federal grant money is already available from the Federal Highway Administration for EV charging infrastructure on the national highway system, which in Whatcom County consists of Interstate 5 and several other main arterial roads, including segments of state highways.¹²⁶

Goal and Strategies for Transportation

Goal: Reduce transportation-related GHG emissions 45% below 1990 levels by 2030, including eliminating fossil fuels from County government transportation operations where technology permits, while ensuring climate-resilient transportation systems.

Strategies proposed toward achieving this goal involve both benefits (benefits beyond those directly related to climate change are often referred to as “co-benefits”) and potential obstacles or drawbacks. Some co-benefits of the proposed transportation strategies are cleaner air and increased use of active transportation, leading to positive health outcomes. The reduction in local pollution is significant, especially for historically marginalized communities who have often borne a greater share of the negative impacts of that pollution.

Poor air quality associated with transportation is highlighted in the Whatcom County Climate Vulnerability Assessment. While the primary goal of eliminating fossil fuels from transportation is to reduce GHG emissions, the co-benefit of reductions in local and regional air pollution are important. These pollutants include nitrogen oxides (NO_x), volatile organic compounds (VOCs), particulate matter (PM) and air toxics, all of which have negative health effects caused by breathing dirty air. For example, nitrogen oxides and VOCs react in sunlight to form ozone, which is the primary component of smog, which can cause a variety of health problems.¹²⁷ These effects are more pronounced in areas close to busy thoroughfares, which tend to have higher housing concentrations occupied by disadvantaged populations.

It should be noted that while these strategies are largely aimed at mitigating GHG emissions, some of them also present opportunities for adaptation, which will make Whatcom County more resilient to the expected impacts of an already changing climate. In particular, the Whatcom County Climate Vulnerability Assessment places roads and bridges in its High Vulnerability category because of likely impacts from extreme heat, heavy rain, flooding, and sea level rise. That Assessment also assigns medium vulnerability to public transit because of its dependence on roads and bridges for many public transit routes.

The four transportation strategies below address three broad areas: reducing VMT directly, moving toward alternative modes of transportation, or switching to alternative fuels. A detailed discussion of specific actions recommended under each of these strategies can be found in the appendix.

¹²⁶ US Dept. of Transportation, Federal Highway Administration. “Federal Funding is Available for Electric Vehicle Charging Infrastructure On the National Highway System,” April 21, 2021.

https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/ev_funding_report_2021.pdf

¹²⁷ For a good basic discussion of these impacts, see US EPA, “How Mobile Source Air Pollution Affects Your Health” <https://www.epa.gov/mobile-source-pollution/how-mobile-source-pollution-affects-your-health>

Strategies for Transportation

1. Reduce vehicle miles traveled (VMT) by promoting alternatives to single occupancy vehicle (SOV) transportation.
2. Promote increased use of electric, hybrid, and alternative fuel vehicles.
3. Improve County vehicle fleet utilization while transitioning to non-fossil alternatives and reducing GHG emissions associated with County projects.
4. Use County resources to participate in and advocate for inter-governmental efforts at the state level for policies and programs to reduce GHG emissions associated with transportation.
5. Incorporate climate adaptation considerations into all County transportation planning processes.

Strategy 1: Reduce vehicle miles traveled (VMT) by promoting alternatives to Single Occupancy Vehicle transportation

Single occupancy vehicles (SOVs) are the most common form of transportation because of their convenience and affordability, and road networks have been designed primarily for them. In addition, lower density land use patterns in the County often make walking, biking, or using public transit more difficult than in higher density urban areas. Strategy 1 focuses on promoting alternative transportation modes – one approach to reducing SOV use. Increasing the accessibility, affordability, and convenience of multimodal transportation options, such as bicycling, walking, or riding public transit, and even by eliminating the need for transportation through improved information technology options, can in principle incentivize their increased use. Although little data exists on the extent to which such improvements would stimulate the use of alternative modes in Whatcom County, we do know that good transportation infrastructure has been shown to attract new businesses and investment.¹²⁸

Careful planning, including coordination with planning efforts of other governments (e.g., the City of Bellingham), to expand and enhance County trail networks now will increase possibilities for both recreation and commuting by alternative means to the SOV, whereas delay will likely increase costs and lead to reduced siting options. Additionally, improvements to public transit and rail, such as increasing frequency, reducing costs, and promoting the ease of single trip multimodal use (e.g., park and ride lots or secure bicycle storage near transit links) can make these transportation options preferable to SOVs.

In addition to providing better infrastructure for multimodal commuting (i.e., the supply side), it is important to find ways to encourage commuters to change their behaviors (the demand side) by using that infrastructure and through increases in telecommuting. The pandemic has forced employers to explore how best to adapt their workforces to remote working. As the pandemic abates, some of these new habits are likely to remain in place, presenting opportunities to help achieve climate goals. On the webpage introducing its recent case study of Expedia,¹²⁹ Nelson/Nygaard Consulting Associates states,

¹²⁸ Powell, Grant. "Build It and They will Come; Why Infrastructure Should Come First," Forbes, March 3, 2021: <https://www.forbes.com/sites/grantpowell/2021/03/03/build-it-and-they-will-come-why-infrastructure-should-come-first/?sh=15d4bce57e9d>

¹²⁹ Nelson/Nygaard, Luum, and Expedia. April 2021. Expedia Group Case Study: How a phased commute program led to longstanding behavior change. <https://nelsonnygaard.com/expedia-group-case-study/>.

“Work from home policies that sat undefined in the wings for decades have been forced centerstage practically overnight. While this is a time of uncertainty for organizations large and small, it is also an ideal time to plan for the future.” The study, which was conducted before the pandemic, documents ways in which careful data analysis and behavioral approaches (e.g., strong employee engagement and a pay-as-you-park system) led to large reductions in SOV commuting by Expedia employees, both before and after moving the company headquarters from Bellevue to Seattle’s Interbay district.

Although Whatcom County’s largest city does not have the traffic congestion of Seattle, major employers such as Peace Health and Western Washington University are considering more active transportation management programs that can actually change commuting behavior. The County should work internally as well as with employers to encourage the adoption of new, more aggressive programs to promote climate-friendly commuting behaviors and to overcome barriers to these changes.¹³⁰

Key Priorities for Strategy 1:

- *Expand local and regional trail networks for non-motorized transportation to create safe active transportation to schools and enhance bicycle and pedestrian commuting infrastructure.*
- *Work with major employers to create programs that incentivize multimodal commuting, expand telecommuting, and allow flexible scheduling.*

Strategy 2: Promote increased use of electric, hybrid, and alternative fuel vehicles.

This strategy aims to reduce emissions of fossil fuel burning SOVs by increasing the transportation share of electric, hybrid, and alternative fuel vehicles that generate lower GHG emissions. Reaching emissions reduction goals will require the increased use of alternative modes of transportation; however, we must recognize that SOVs will still be used for transportation for some time.

Because they see their market changing through a combination of buyer preferences and government mandates,¹³¹ many automobile manufacturers have announced plans to increase EV production and reduce or eliminate the production of internal combustion vehicles. For example, Toyota, with one of the largest market shares globally, is introducing new EV, hybrid, and hydrogen fuel cell models including for their trucks.¹³² General Motors was the first American manufacturer to announce their commitment to produce 30 new global EVs by 2025¹³³ and pledged to stop making oil powered passenger cars, vans, and sport utility vehicles by 2035.¹³⁴

¹³⁰ Whillans, Ashley et al. “Nudging the Commute: Using Behaviorally-Informed Interventions to Promote Sustainable Transportation,” Harvard Business School, Working Paper 21-002. https://www.hbs.edu/ris/Publication%20Files/21-002_d78ef6ca-b99a-4b13-93eb-be1027914a18.pdf

¹³¹ Traugott, Jay. “Third US State Banning Combustion-Engine Car Sales,” *CarBuzz*, Jan 3, 2021. <https://carbuzz.com/news/third-us-state-banning-combustion-engined-car-sales>. Since this article was published, Washington state has become the fourth state on the list—legislation to ban the sale, purchase, or registration of any non-electric vehicle of model year 2030 or later is awaiting Gov. Inslee’s signature.

¹³² Hogan, Mack. “Hybrid and Electric Toyota Pickup Trucks Are Coming,” *Road and Track*, Apr 20, 2021. <https://www.roadandtrack.com/news/a36176318/hybrid-and-electric-toyota-pickup-trucks-are-coming/>

¹³³ Our Path to an All-Electric Future, zero crashes, zero emissions, zero congestion. <https://www.gm.com/electric-vehicles.html>

¹³⁴ Mufson, Steve, “General Motors to eliminate gasoline and diesel light-duty cars and SUVs by 2035,” *The Washington Post*, Jan 28, 2021. <https://www.washingtonpost.com/climate-environment/2021/01/28/general-motors-electric/>.

By working with the community, local electric utilities, and the private sector, the County can accelerate the adoption of EVs, encourage the construction of electric vehicle charging infrastructure, and help ensure the growth of a skilled EV-related workforce. Since Whatcom County will be reliant on SOVs for some time, and on-road vehicles currently generate the most emissions in the transportation sector, implementing this strategy will be crucial to achieving this goal's emissions reductions.

The number of electric vehicle registrations more than doubled from 2017-2020, but the figure for 2020 still represents only about 0.5% of total

Whatcom County vehicles (Fig 2.14)¹³⁵. Reducing transportation emissions by 45% by 2030 would require the replacement of somewhere between 50,000 and 100,000 fossil fuel vehicles with EVs (assuming VMT remain unchanged).

While the higher initial purchase costs of EVs are generally offset over the life of the vehicle by lower operating, fuel, and maintenance costs, the higher upfront cash outlay can nevertheless serve as a

deterrent to EV purchases. The County should therefore explore establishing a group buying program, such as the one in place in Fort Collins, Colorado,¹³⁶ that would result in discounts to EV prices.

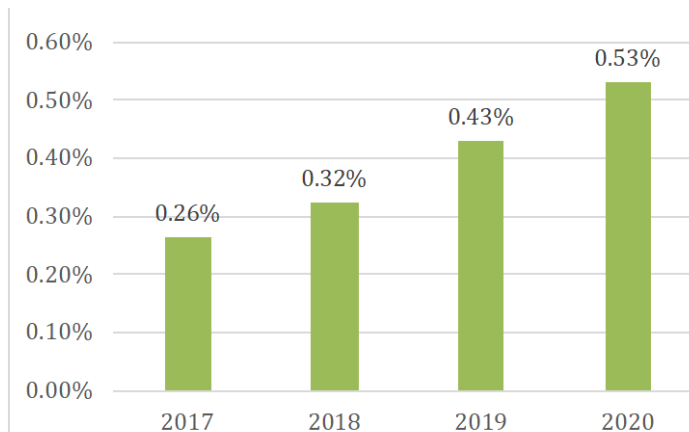


Figure 2.14: Whatcom County EV registrations by calendar year 2017-2020, Percent of total vehicles

Key Priority for Strategy 2:

- *Sponsor pooled purchasing of EVs, facilitate additional EV charging infrastructure, promote training opportunities to create an EV workforce, and electrify school bus fleets.*

Note: While Strategies 1 and 2 are aimed at reducing transportation emissions generated by the community, the next strategies present significant opportunities for the County to lead by example.

Strategy 3: Improve County vehicle fleet utilization while transitioning to non-fossil alternatives and reducing GHG emissions associated with County projects

Strategy 3 is focused on what the County can do to modify its operations to reduce emissions: improve County vehicle fleet utilization while transitioning to non-fossil-fuel alternatives and reduce GHG emissions associated with County projects. Doing so will not only reduce emissions but will also allow the County to serve as a visible example for businesses and other government units of what can be accomplished in moving toward transportation decarbonization. The most important step to take under this strategy is to analyze the existing fleet of County vehicles to optimize its use and to begin the

¹³⁵ Based on data taken from Washington Department of Licensing, Vehicle and Vessel Fee Distribution Reports at <https://fortress.wa.gov/dol/vsd/vsdFeeDistribution/ReportList.aspx>. This data comes from Motor Vehicle Registration by Class and County reports.

¹³⁶ Marmaduke, Jacy. "Electric vehicles for sale at reduced prices in Fort Collins during group buy event," *Fort Collins Coloradoan*, Oct. 30, 2020. <https://www.coloradoan.com/story/news/2020/10/30/fort-collins-electric-vehicle-group-buy-offers-lower-prices/6071879002/>.

replacement of fossil fuel vehicles with EVs or alternative fuel vehicles. Washington HB1091, concerning low carbon fuels, may provide funding for vehicle conversion.

Some of the proposed County actions in this area (e.g., adopting EVs for fleet use or replacing fossil fuel powered equipment) might also serve as pilot projects, allowing for further exploration of these GHG reduction approaches while illustrating how they might be best applied for other governments and the private sector.

The County is already moving in the direction of electrifying the Lummi Island Ferry, which is a recommended transportation action. This is especially important because the new ferry will be in use well after 2050, the target date for net zero emissions. In addition, we are recommending that contractors performing work for the County report the quantities and types of fuel used for County funded projects and that the County consider imposing standards regarding emissions reductions by contractors.

Key Priorities for Strategy 3:

- ***Perform analyses designed to optimize County fleet use and incorporate EVs and alternative fueled vehicles and implement the recommendations thereof.***
- ***Replace the Lummi Island Ferry with either an all-electric technology or a hybrid that can be converted to all-electric.***
- ***Require fuel use reports from County contractors and incorporate emission reduction standards into County contracts.***

Strategy 4: Use County resources to participate in and advocate for inter-governmental efforts at the state level for policies and programs to reduce GHG emissions associated with transportation.

Strategy 4 calls on the County to use County resources to participate in and advocate for inter-governmental efforts at the state level for policies and programs to reduce GHG emissions associated with transportation. The County already participates in such efforts, such as the Whatcom Council of Governments' transportation planning process and should continue to do so while advocating for the increased inclusion of climate change goals. The State Energy Strategy includes multiple recommendations relating to inter-governmental cooperation.

Strategy 4 also recommends taking advantage of opportunities for funding and other types of assistance made available at the state level. For example, the low-carbon fuel bill HB1091 passed by the legislature in 2021 provides for the possibility of receiving funds and other assistance for transportation decarbonization, both in the County fleet and for the general public.

Key Priority for Strategy 4:


- ***The County should continue existing inter-governmental cooperation and seek out new opportunities to work with other agencies of government, while taking advantage of new funding opportunities made possible by recent Washington state legislation.***

Strategy 5: Incorporate climate adaptation considerations into all County transportation planning processes.

The Vulnerability Assessment identifies Whatcom County roads and bridges as highly vulnerable (Table 2.3). The County has recently released the 2021 update of its Natural Hazards Mitigation Plan, which reviews past and current levels of flooding, coastal flooding, severe storms, wildland fires, and drought.¹³⁷ It is critical to safeguard as much as possible of roads and bridge infrastructure vulnerable to climate-related hazards. The Mitigation Plan is very thorough and makes specific recommendations that should be considered.

Several of the hazards identified in this new hazard mitigation plan are quite likely to be exacerbated by climate change in the next few decades. So, it is not only important to look at past and current levels of hazards, but it is also important to look at future levels of these hazards when planning new roads and bridge infrastructure that is expected to last for 30 or 40 years.

Table 2.3. Vulnerability Assessment for Roads and Bridges

 Roads and Bridges High Vulnerability		
Exposure	High	Whatcom County's public roads and bridges are likely to be affected by extreme heat, heavy rain, flood water, and sea level rise—especially in low-lying areas such as along Puget Sound and in the Nooksack River floodplain. Damages and failures put assets (e.g., buildings, homes) and human safety at risk.
Sensitivity	High	Current infrastructure is often affected by flooding. Sea level rise, extreme rainstorms, and extreme heat are likely to interrupt the transportation system more frequently and severely in the future without action.
Adaptive Capacity	Medium	Whatcom County, Whatcom Council of Governments, and the Lummi Nation have developed plans and strategies that lead toward improving road and bridge resiliency, but improvements may occur at a slower pace than impacts.

For example, Section 3 of the Mitigation Plan includes an extensive table of “Unincorporated Whatcom County Identified Mitigation Actions 2021-2025.” The table contains several action items concerning assessing community risk (MU-1) and integrating mitigation into local planning (MU-6). We suggest that more emphasis be placed on projected climate change impacts over the next few decades. With respect to roads and bridges, risk assessment and planning should consider the likely impacts of flooding from changed rainfall patterns and sea level rise as well as other potential weather-related impacts that will intensify natural hazards. While collecting data on past events is important, the likelihood of more frequent and more severe occurrences should be anticipated in risk assessments affecting decisions about the reinforcement or replacement of transportation infrastructure.

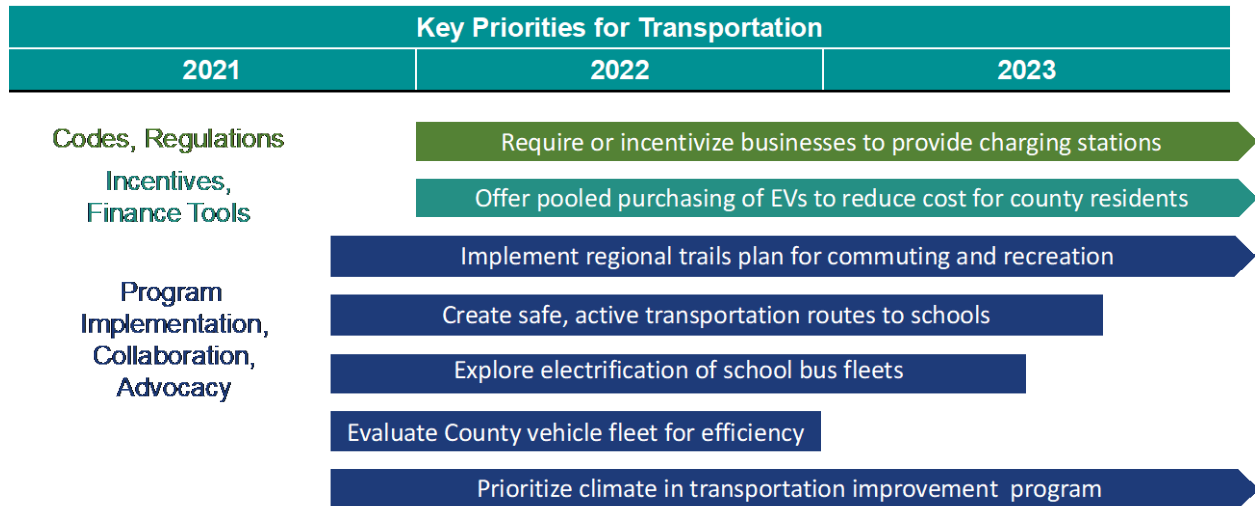
Key Priority for Strategy 5:

- ***New transportation infrastructure that is expected to last for several decades should be designed based on projected climate impacts.***

¹³⁷ This Plan can be found at <https://www.whatcomcounty.us/3569/2021-Natural-Hazards-Mitigation-Plan>

Timeline and Summary of Strategies and Actions

Although the stated transportation strategies are fairly specific (and the actions associated with them even more so), it is important to understand that the broader policy and social environments in which they will be implemented are changing. For this reason, policy makers must remain flexible. The recent change of administrations will result in more aggressive climate change policy at the federal level. Washington state government is adding important provisions to its climate-related agenda through legislation and regulation. Old-line automakers are planning to increase EV production while reducing their output of ICE vehicles.



Transportation Strategies and Actions

A detailed description of the actions is presented in Appendix D: Additional Information on Transportation.

1. Reduce vehicle miles traveled (VMT) by promoting alternatives to SOV transportation
Actions
1.1 Update and Implement the Regional Trails Plan as identified in the 2011 Bicycle Pedestrian Plan and 2004 Chain of Trails plan and any subsequent revisions thereto to expand the regional trail network for commuting and recreation.
1.2 Create safe active transportation routes to schools where they don't already exist, enhance existing active transportation routes to schools, and explore the electrification of school bus fleets.
1.3 Create a countywide non-motorized plan, especially in UGAs of cities to Enhance bicycle and pedestrian commuting infrastructure, including storage/parking and dedicated off-road non-motorized trails.
1.4 Work with WTA to improve transit service through network expansion, changes in transit schedules, and improved connections between transit routes and with other transport modes.
1.5 Adopt any available state programs and fund local efforts to provide means-tested transit subsidies, such as low or no cost passes, to increase accessibility to transit.
1.6 Support existing and develop new education and outreach programs to promote alternative transportation options.
1.7 Work with employers to find programs and incentives to support multimodal commuting.

<p>1.8 Expand telecommuting and flextime scheduling for county employees and encourage other employers to do the same.</p> <p>1.9 Expand broadband internet countywide.</p> <p>1.10 Explore the feasibility of building multi-modal transfer stations to move freight from trucks to rail in coordination with the Port of Bellingham.</p> <p>1.11 Foster increased rail transportation for the public and industries.</p> <p>1.12 Conduct biennial surveys of County employee commuting preference to inform programs that encourage alternatives to SOV commuting.</p>
2. Promote increased utilization of electric, hybrid, and alternative fuel vehicles
Actions
<p>2.1 Implement a countywide EV promotions program through education and outreach.</p> <p>2.2 Offer pooled purchasing of EVs to reduce the upfront cost of such vehicles for Whatcom County residents.</p> <p>2.3 Work with local trade and technical schools, unions, and businesses to create an EV workforce pipeline.</p> <p>2.4 Install electric charging stations in strategic locations, prioritizing underserved locations.</p> <p>2.5 Require or provide financial incentives for major employers to provide onsite charging stations for employee EVs.</p> <p>2.6 Work with WTA and municipalities in the county to create infrastructure for electric buses.</p> <p>2.7 Develop an infrastructure plan for H₂ fuel distribution and other fuel mix options in coordination with state efforts.</p> <p>2.8 Exempt e-bikes and other e-ride devices from local sales taxes.</p>
3.Improve county vehicle fleet utilization while transitioning to non-fossil alternatives and reducing GHG emissions associated with county projects
Actions
<p>3.1 The County should undertake an evaluation of its on-road vehicle fleet to achieve maximum GHG reductions. Considerations should include moving away from fossil fuels to electricity (EVs) and other clean fuels, the matching of vehicle numbers and types to their uses, and the potential for vehicle sharing among county departments. Ideally this would be accomplished by funding a study by an outside expert consultant.</p> <p>3.2 Invest in a hybrid or electric technology to replace the Whatcom Chief ferry to Lummi Island.</p> <p>3.3 Require end-of-life replacement of County-owned construction equipment using fossil fuels with alternative-fuel or electric equipment and encourage such replacements by private operators.</p> <p>3.4 Incorporate contractor fuel emission reduction standards into bids and contracts and require reporting of fuel types and quantities used on specific contracted jobs.</p> <p>3.5 Perform diesel exhaust retrofits for county-owned equipment, including filter technology with passive or active cleaning systems.</p>
4. Use County resources to participate in and advocate for inter-governmental efforts to reduce GHG emissions associated with transportation.
Actions
<p>4.1 Prioritize recommended actions within this Plan for funding and implementation within the County's 6-year Transportation Improvement Program</p> <p>4.2 Continue to advocate for the advancement of climate goals in the Whatcom Council of Governments Regional Transportation Planning efforts.</p> <p>4.3 Prioritize transportation climate goals when updating the Whatcom County Comprehensive Plan.</p>

4.4 To the greatest extent possible adopt state Vehicle Miles Traveled (VMT) reduction targets and land use planning approaches designed to reduce VMT and SOV use. A separate strategy should be to adopt lower vehicular level of service standards in the County Comp Plan as a disincentive to auto-centric transportation planning.
4.5 While both are reliant on higher density development, participate in State-led efforts to provide resources and promote interjurisdictional coordination for VMT reduction programs, including Transit Oriented Development (TOD) and Transportation Demand Management (TDM).
4.6 Obtain available state funding to improve connections between transportation system elements.
4.7 Participate in any available state programs that would facilitate the transition to hybrid or electric vehicles by ride-share programs like Uber and Lyft.
4.8 Obtain available state-level funding for local jurisdictions to study freight travel reduction opportunities and plan for infrastructure improvements.
4.9 Evaluate and adopt methods for data collection to understand the impacts of commuting behavior.
5. Incorporate climate adaptation considerations into all County transportation planning processes.
5.1 Design new transportation infrastructure to withstand projected future climate impacts based on the intended lifespan of the infrastructure.
5.2 Incorporate climate change projections into future Natural Hazards Mitigation plans.

Conclusion

The strategies presented in here are based on an extensive review of other communities' climate action plans, the Community Research Project report¹³⁸, the recently released Washington 2021 State Energy Strategy¹³⁹, transportation-related plans or proposals produced by various agencies in Washington State and Whatcom County, and other information sources.

The pandemic has accelerated changes in work life and shopping behavior that will lead to a reduced need for transporting people, and longer-term trends will lead to lower rates of personal auto ownership, especially in urban areas. For all of these reasons and others, it will be critical to regularly and frequently reevaluate the strategies and actions recommended here.

138 Whatcom County Climate Impact Advisory Committee, 2019, Community Research Report; available at <https://www.whatcomcounty.us/3162/Meetings-Additional-Information>

139 Washington State Department of Commerce, 2021, 2021 State Energy Strategy <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

Waste

The World Bank predicts that without urgent action, global waste will grow by 70% by 2050.¹⁴⁰ High-income countries are responsible for more than one-third of the world's waste. Plastics are especially problematic because most forms of plastic cannot be recycled and end up in landfills. Many corporations have sold us on a throw-away culture and convinced us that it is solely our responsibility to recycle the packaging they use for their products. Accountability for plastic waste packaging in particular, must shift back to the corporations that produce the packaging and the individual products that use the packaging. The way we handle waste is currently unsustainable.

Excellent detailed descriptions of waste disposal in Whatcom County can be found in the Comprehensive Solid and Hazardous Waste Management Plan¹⁴¹ and the Community Research Project.¹⁴² Unlike these reports, this discussion will focus only on the key waste areas that contribute to our 2017 communitywide GHG inventory.

Our Current Waste Disposal System

Whatcom is one of only two counties in the state that has a privatized solid waste management system, which includes curbside pickup, transfer stations, and transport to landfills for burial (Fig 2.15). With the exception of the City of Blaine, the cities in Whatcom County manage their solid waste collection system.

No one is required to have trash or compost bins in rural areas, even though waste haulers are required to offer this service. Point Roberts is an exception where everyone must pay for waste pickup to make this service profitable.

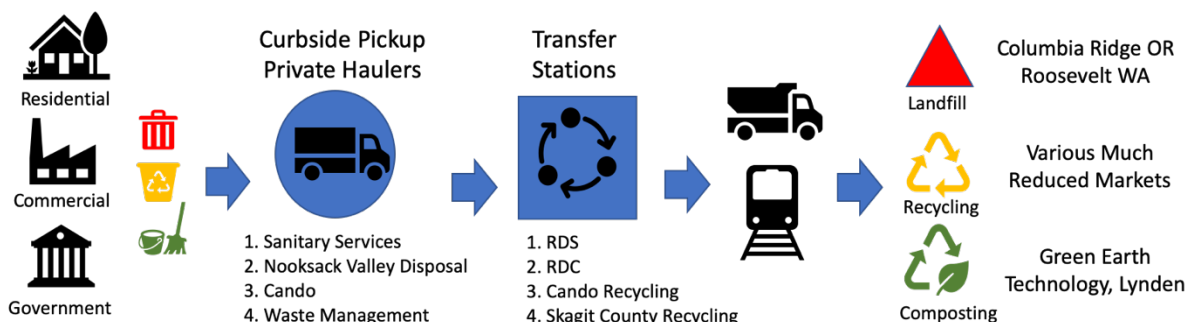


Figure 2.15: Depiction of the Whatcom County privatized solid waste management system.

¹⁴⁰ What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050, by Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. Urban Development; Washington, DC: World Bank: <https://openknowledge.worldbank.org/handle/10986/30317>

¹⁴¹ Comprehensive Solid and Hazardous Waste Management Plan, Whatcom County, WA, June 14, 2016. <https://whatcomcounty.us/DocumentCenter/View/6723/Whatcom-County-Comprehensive-Solid-and-Hazardous-Waste-Management-Plan>

¹⁴² 2019 Community Research Project, Chapter 3 Waste Reduction and Recycling, by Vicki Thomas. <https://whatcomcounty.us/3162/Meetings-Additional-Information>

Greenhouse gas emissions from waste falls into two general categories: Solid Waste and Wastewater. Waste accounts for only 1% of the total Whatcom GHG emissions, yet it is still an important environmental issue that should be addressed.

The overall basic strategy for solid waste management is reduction and recycling. Much of our current waste is buried in landfills in eastern Washington and Oregon, including a large quantity of the waste we attempt to recycle.

Emissions from Solid Waste

Solid Waste is the major contributor, representing 91% of the overall GHG emissions from waste in Whatcom County. Solid waste is basically anything we put in garbage bins, whether the item is recyclable or not. It can also include industrial and sewage sludge, construction waste, vehicle parts and contaminated soils.

While plastics can make up a large volume of non-degradable landfill waste, organic waste accounts for most of the GHG emissions from landfills. Statewide, organic waste accounts for over 40% of the residential waste stream. Reduction of food waste is a priority and most often occurs through composting or redistribution of food to pantries, missions, and soup kitchens. The SSC curbside food and yard waste program, Food Plus, is voluntary and services about 19% of the households in the County.

Solid waste GHG emissions can be broken down into generation, transport, and processing¹⁴³ (Fig. 2.16). All new landfill material from Whatcom County is sent to large landfills in eastern Washington or Oregon. Waste statistics for Whatcom County² indicate that waste per household has trended downward as the public becomes more educated and aware of this problem.

At 70%, solid waste generation is the largest component of County waste management related emissions. Even though the solid waste is disposed of in landfills located outside of Whatcom County, the County is still responsible for the emissions from this waste.

Methane is the largest component of GHG emissions from buried waste, followed by smaller amounts of carbon dioxide. These GHG emissions are based on the overall composition and mass of the annual solid waste.

Only organic waste is used in calculations for methane emissions. Inert wastes in landfills are not expected to produce GHG emissions unless they are combusted in the future.

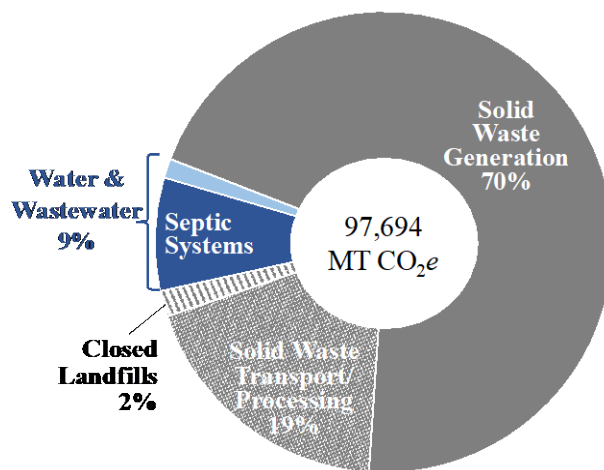


Figure 2.16: Whatcom communitywide emissions from solid waste and water and wastewater.

¹⁴³ Solid waste generation results from natural, human and animal activities. Emissions are based on the amount and composition of waste in the landfill.

Transport of the solid waste by rail or truck to landfills in eastern Washington and Oregon accounts for approximately 16% of the emissions with the remaining 3% from processing at the landfill.

Landfills are also subject to the recent Climate Commitment Act if their emissions exceed 25,000 MT CO₂e. The State legislature plans to adopt a program specific to landfills which would suspend application of the carbon cap. Without this legislation, landfills will be subject to the carbon cap unless they capture at least 75% of their emissions or produce electricity or natural gas from these emissions.

The landfill at Roosevelt in Klickitat County disposes of most of Whatcom's solid waste. This landfill takes shipments of solid waste from five states and British Columbia.¹⁴⁴ The Roosevelt landfill is now capturing the methane emitted from decomposing waste that could provide biogas to as many as 19,000 households. PSE has signed a contract to purchase this methane and will own the renewable credits.

Whatcom County has no open landfills and will not open any in the future due to issues related to shallow groundwater. The County Health Department is responsible for monitoring the six closed landfills that contain solid waste. These closed landfill emissions represent less than 2% of the total waste GHG emissions for our County. The GHG emissions from landfills peaked shortly after closing and then continued to decline as organic material has degraded. By 2030, GHG emissions from these closed landfills are expected to decline by 30%.

Whatcom Landfills	Closed
Cedarville	1990
Birch Bay	1983
Point Roberts PW	1990
Point Roberts Park	1990
Y Road Landfill I	1970
Y Road Landfill II	1989

Emissions from Water and Wastewater

Water and wastewater emissions include fugitive emissions or leaks and other irregular releases of gases or vapors from septic systems (8%), and minor emissions from a combination of wastewater treatment lagoons, process N₂O from effluent discharge to rivers and estuaries, combustion of biosolids and sludges, and wastewater treatment. Methane is produced when microorganisms biodegrade organic matter in septic systems, which in turn escapes to the atmosphere. The total amount of methane emissions is based on the population served by the septic systems in the County.

Together the minor sources only account for an additional 1% of total waste emissions. Wastewater lagoons create a small quantity of emissions from a combination of biological, physical, and chemical processes. Wastewater treatment plants in Everson, Newhalem, and Lynden discharge treated wastewater, which contains nitrous oxides directly into lakes, rivers, and Puget Sound. Nitrous oxides are GHGs. The Post Point Wastewater Treatment Facility reported combusting biosolids in 2017 which also releases small amounts of CO₂.

¹⁴⁴ Giant landfill in tiny Washington hamlet turns trash to natural gas, as utilities fight for a future, by Hal Bernton. Seattle Times updated article, March 5, 2021. <https://www.seattletimes.com/seattle-news/turning-trash-to-natural-gas-utilities-fight-for-their-future-amid-climate-change/>

Goal and Strategies for Waste Emissions

Goal: *Reduce by 40% the volume of communitywide solid waste transported to landfills and the growth in methane emissions from wastewater by 2030 through the use of education, incentives, and regulations on disposal.*

Strategies for Waste Reduction and Reuse

1. Reduce the volume of non-recyclable single-use items and product packaging materials by increasing restrictions on disposal and communitywide education.
 2. Reduce the growth of food waste through better utilization, collection and composting.
 3. Understand the impact of methane emissions from septic systems in the County.
 4. Provide incentives to builders for the reuse of building materials in new construction.
-

Strategy 1: Reduce the volume of non-recyclable single-use items and product packaging materials.

The average American is responsible for approximately 250 pounds of plastic waste each year. Over 75% of this plastic, based on weight, ends up in landfills across the US equal to around 27 million tons per year. Only about 9% of this plastic is recycled, with the remaining 16% combusted for energy.¹⁴⁵ These percentages will vary depending on the available regional markets that can use recycled plastics, such as for carpet or fleece clothing manufacturing. Actual recycling information for Whatcom County plastic waste is not available but could be requested from local solid waste disposal companies when the County issues a waste audit every five years.

We do know the categories of plastic waste that are never recycled: plastic wrap, plastic bags, flexible packaging, small plastic items such as bottle caps, utensils, and plastic packaging to name a few. Clamshells used for fruit, cupcakes, cut lettuce, and sandwiches are also often not recycled. Ridwell, a new recycling service that is planning to expand in Bellingham, collects hard-to-recycle items at your doorstep, such as batteries, light bulbs, plastic bags, films, and threads (clothes, shoes, textiles).¹⁴⁶ Ridwell in turn has contracts to recycle this waste such as their exclusive contract with Trex decking for plastic film.

The first strategy for solid waste is to restrict the use of single use plastic items and product packaging materials that cannot be recycled. To support this strategy, more detailed information is needed from material handlers on the composition and volume or weight of non-recyclables that are shipped annually to landfills. By ordinance, the County can as appropriate require the use of compostable single-serving containers and utensils by restaurants, stadiums, and local businesses. The County can also do more to educate the community on identifying product packaging that cannot be recycled, which may reduce demand for the product or alternatively, convince manufacturers to use recyclable packaging.

County government operations should require a higher percentage of recycled materials in products and packaging purchased by the County government. To reduce plastic bottle waste, the County should also install water bottle refill stations at all County parks.

¹⁴⁵ Plastics: Material-Specific Data, U.S. EPA, most recent data from 2018 used. website: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data#PlasticsTableandGraph>

¹⁴⁶ Ridwell, <https://www.ridwell.com/>

Key Priorities to Reduce Non-Recyclable Waste:

- ***Eliminate single use plastics as much as possible.***
- ***Install water bottle refill stations at County Parks.***

Strategy 2: Reduce the growth of food waste. Food waste has the greatest impact on the solid waste GHG emissions from landfills. The Whatcom Community Food Assessment in 2017¹⁴⁷ estimated that organic waste makes up more than half of our community's waste stream. Only about 19% of Whatcom households use SSC's voluntary FoodPlus program and it is unknown how many additional households have their own composting bins. FoodPlus service should be available at all County buildings.

The Whatcom Community Food Assessment listed the following key challenges to reducing food waste:

- A continued increase in food waste partly resulting from the "all you can eat" mentality that results in the waste of prepared foods from buffets, grocery store outlets, delis, etc.
- Some regulations to protect food safety and promote good nutrition also led to food waste.
- Food service businesses are hesitant to reduce meal portion size or add labor hours to collect and compost food waste.
- A lack of incentives for renters to use recycling/food composters or lack of space in apartment buildings to accommodate multiple bins for separating waste.
- The contamination of food waste with non-recyclable items.
- Lack of curbside collection in rural areas of the County.

Community education is one strategy in reducing food waste. More direct solutions to reduce food waste would be to expand funding for food recovery and redistribution programs and expand requirements for the disposal of food waste via curbside recycling or on-site composting. The County should support programs that help businesses reduce waste like the Sustainable Connections" Toward Zero Waste program. In rural areas on-site composting may include the use of anerobic digesters that can turn food waste and manure into usable bioenergy.

Key Priorities to Reduce Food Waste:

- ***Fund and expand the Food Recovery Program to Add a Food Kitchen***
- ***County buildings should lead by example by offering a full suite of recycling including food composting and cardboard.***

Strategy 3: Understand the impact of methane emissions from septic systems. Rural septic systems were a small but significant contributor at 8% to the overall GHG emissions related to our waste stream. Currently there are about 30,000 total septic systems in the County. Septic systems are required to be inspected every year for pressurized systems and every 3 years for gravity-based systems. These inspections help identify leakage problems that can result in contamination of water systems.

Understanding the scale of the problem of methane emissions from septic systems requires more information on the rate of growth of these systems in the County. For septic systems located in urban growth areas, the County should create incentives for households to switch to municipal sewage systems when available. This could include a surcharge for septic systems when a municipal sewage

¹⁴⁷ Whatcom Community Food Assessment, 2017 Update Report prepared by the Whatcom Food Network CFA Update Subcommittee. <https://co.whatcom.wa.us/DocumentCenter/View/54385/Community-Food-Assessment-2017>

system is available. However more information is needed on the scale of the problem and the cost/benefit in respect to lowering GHG emissions and reducing water pollution.

Key Priority to for Septic Systems:

- *Collect more information to better understand the scope of the problem.*

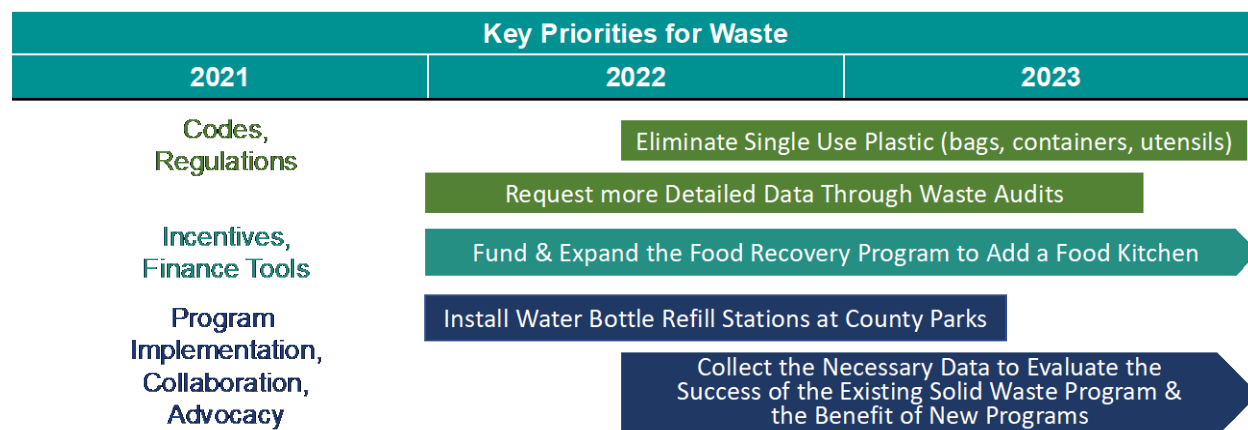
Strategy 4: Provide incentives to builders for the reuse of building materials. An actual breakdown of the amount of waste generated by building demolition and construction is lacking for Whatcom County. However, the latest statewide Waste Characterization Study estimates that up to 10% could be from construction.¹⁴⁸ To prevent disposal of this waste at undesignated disposal sites and encourage recycling of building materials, the County’s Flow Control Ordinance (No. 91-041) could be revised to include construction and demolition debris.

The recycling of building materials is a valuable service in Whatcom County and deserves community support. One of the largest retail stores is The RE Store in Bellingham which provides a wide range of used building materials recovered from building remodels and demolition. According to the Building Industries Association of Whatcom County, area builders are mindful of estimating materials and creating as little waste as possible. This association’s Green Built program provides environmental benefits on many fronts including reducing waste.¹⁴⁹

Key Priorities for Building Material Waste:

- *Request more detailed data through waste audits to evaluate the success of current programs or the need for additional programs.*

Timeline and Summary of Strategies and Actions



¹⁴⁸ 2015-2016 WA Statewide Waste Characterization Study, Publication 16-07-032, Department of Ecology, pg. 89.

¹⁴⁹ 2019 Community Research Project, Chapter 3 Waste Reduction and Recycling, by Vicki Thomas.

<https://whatcomcounty.us/3162/Meetings-Additional-Information>

Waste Strategies and Actions

1. Reduce the volume of non-recyclable single-use items and product packaging materials by increasing restrictions on disposal and communitywide education.
Actions
<ul style="list-style-type: none"> 1.1 Eliminate single use plastic containers and utensils used by restaurants and retailers via County ordinances. Require compostable, single-serving containers at commercial locations including stadiums. 1.2 Educate County residents and retailers on identifying product packaging that cannot be recycled and incentivize product manufacturers to provide better packaging options. 1.3 Request more detailed data through waste audits, as needed, from material handlers to better understand the effectiveness of County programming. 1.4 Identify large volume contributors to the solid waste stream and develop a community-wide campaign that either discourages product consumption or promotes changes in the packaging by the manufacturer. 1.5 Require higher percentages of recycled materials in products and packaging purchased by the County government. 1.6 Install water bottle refill stations at County parks to avoid the need for people to buy water in plastic bottles.
2.Reduce the growth of food waste through better utilization, collection, and composting.
Actions
<ul style="list-style-type: none"> 2.1 Fund and expand the Sustainable Connections Food Recovery program. Add funding for a food kitchen to better utilize time-sensitive food use. 2.2 Make Food Plus (the curbside food and yard waste recycling) mandatory for single and multi-family residents that do not have an on-site composting capability (e.g., compost bin or feed for livestock). 2.3 Provide option of smaller trash containers at a reduced cost to offset the cost of action 2.2.
3.Understand the impact of methane emissions from septic systems in the county.
Actions
<ul style="list-style-type: none"> 3.1 Evaluate the growth trend in septic systems in the County and determine how regulations can be used to limit future growth in methane emissions. 3.2 Determine the costs and potential GHG emission benefit of switching current septic systems to nearby/accessible municipal sewage systems.
4.Provide incentives to builders for the reuse of building materials in new construction.
Actions
<ul style="list-style-type: none"> 4.1 Revise the County's Flow Control Ordinance (No. 91-041) to include construction and demolition debris to prevent disposal at undesignated disposal sites and encourage recycling of building materials. 4.2 Evaluate potential for instituting recycling requirements for construction sites through the building permit program.

Conclusion

State law requires the County to develop a comprehensive solid and hazardous waste management program that is updated every five years. The County's solid water management program relies primarily on educational programs to reduce waste including many actions implemented over the five-year time period between report updates. Little information is publicly available on the effectiveness or success of these actions. Our community may not see the waste because it is not landfilled here. However, the emissions are still attributed to our County and should be mitigated. Lack of data on some areas of emissions warrant further study and deliberate data gathering. Best practices should be applied to the issue to accomplish the goal of 40% reduction in our waste streams. However, until basic infor-

mation such as annual per capita waste in Whatcom County is provided, it will be difficult to monitor the effectiveness of strategies and actions for GHG reduction.

Land Use

Incorporating climate change into County land use and development policies, regulations, comprehensive planning, and project implementation can build climate resilience while helping to mitigate GHG emissions. Climate-smart land use policies and regulations can significantly reduce environmental harm while also enhancing the local economy and quality of life.

Development and land use changes alters the natural environment, degrading land with high ecological, economic, and climate resilience value. In fact, research has found that throughout the Puget Sound region, degradation due to development and land conversion is outpacing restoration and has failed to maintain healthy ecosystems or offset impacts due to those developments.¹⁵⁰ Changes in land use can also threaten food systems, access to clean water, carbon storage and sequestration, critical wildlife habitat, recreation, and cultural sites.

Low density development increases carbon emissions in the transportation sector and contributes to the degradation of natural systems. Considering climate change in comprehensive planning and land development is essential to ensure protection of the natural environment, minimize impact of the built environment, and reduce a community's overall risk and vulnerability to climate change.

In addition, development within Whatcom County's floodplains is likely to worsen existing flooding hazards. Climate change is increasing the frequency and magnitude of rainfall events and hence, flooding in the Nooksack River and impacting the cities of Nooksack, Everson, Sumas, and Ferndale. These cities experienced major flooding from the Nooksack River in 2020 that caused more than \$4 million in damages to local homes, business, and infrastructure.¹⁵¹ Other rivers and creeks in Whatcom County are also prone to flooding, such as the Sumas River, Breckenridge Creek and Swift Creek. Development on alluvial fans—the fan-shaped areas formed by rocks, wood, gravel, and mud where steep mountain streams empty onto flat valley bottoms—can greatly increase flood and debris flow hazards.¹⁵²

A meaningful response to climate change will require strategic changes and significant updates in the County's land use code and Comprehensive Plan by 1) prioritizing climate resilient development in the built environment, 2) mitigating GHG emissions to create ecological gains and enhanced ecosystems functions, and 3) increasing protection of the natural environment and working lands.

A climate vulnerability assessment completed for land use stated that, "the County's Comprehensive Plan highlights risks and considerations for addressing population growth, economic development, and environmental health over the next 20 years. Ensuring the health of forest and riparian ecosystems, watersheds and floodplains, as well as utilizing natural or green infrastructure (e.g., rain gardens and urban trees) is important to build resilience to climate change impacts as the county develops."¹⁵³ This statement from

The Washington State Growth Management Act (GMA) dictates how cities and counties can grow, by increasing housing density in more urban areas, promoting an accessible multi-modal transportation system, and ensuring that existing and new infrastructure is climate resilient and meets an established "green"

¹⁵⁰ Puget Sound Partnership. 2019. State of the Sound Report. Olympia, Washington. November 2019. 79pp. www.stateofthesound.wa.gov

¹⁵¹ The Bellingham Herald, "Whatcom Super Bowl weekend flood damage in millions," Feb 2020.

¹⁵² Whatcom County Public Works - River and Flood Division, "Alluvial Fan Hazard Planning," Whatcom County: <https://www.whatcomcounty.us/2756/Completed-Plans-Alluvial-Fans>

¹⁵³ Whatcom County Climate Vulnerability Assessment for Land Use & Agriculture

the Comprehensive Plan is correct; however, climate change is the driver that is intensifying many of these risks. So we can no longer rely on historical information on population growth and weather events to analyze the future risks posed by climate change. Instead, we must understand how climate change is accelerating risk in order to build climate resilience in new infrastructure and natural systems.

Climate-smart land use can reduce GHG emissions in the built environment and support healthy ecosystems in the natural environment. Both are necessary to build climate-resilient communities that can continue to function and prosper despite the inevitable changes that are already occurring with our warming world.

Goal and Strategies for Land Use

Goal: Enhance carbon storage and sequestration and create climate resilience in the County through sustainable land use and development policies that preserve, protect, and enhance the health and function of our natural resources.

The strategies for land use focus on four areas; three in the built environment including development, transportation, infrastructure; and high ecological value areas in the natural environment that are most threatened by human activities.

Strategies for Land Use

- 1. Create a Climate Resilient Regulatory Framework for Sustainable Land Development:** Design and implement a climate resilient regulatory framework for new County developments (residential, commercial & industrial) that improves building energy use, greater density, multimodal mobility options, and minimal impact to natural ecosystems.¹⁵⁴
 - 2. Enhance Active and Public Transportation Systems:** Employ County land use policy and regulations and public investment to enhance transportation systems and infrastructure and increase transit ridership.
 - 3. Build Green Infrastructure to Enhance Climate-Resilience and Reduce Environmental Impact:** Require a climate-focused risk assessment using future climate scenarios for all new County infrastructure (e.g., roads, bridges, buildings, emergency services, etc.) over the projected lifespan of the new infrastructure to reduce environmental impacts and risks.
 - 4. Protect Climate-Sensitive Natural Resources of High Ecological Value:** Protect riparian corridors, floodplains, shorelines, wetlands, and migration corridors by incorporating science-based future climate scenarios in County code and increasing acquisition of voluntary conservation easements.¹⁵⁵
-

Strategy 1. Create a Climate Resilient Regulatory Framework for Sustainable Land Development


According to the Climate Vulnerability Assessment for Land Use & Agriculture, commercial and residential developments in Whatcom County are highly vulnerable to climate change (Table 2.4). Whatcom

¹⁵⁴ “Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural resources and ecosystem services on which the economy and society depend.” (https://en.wikipedia.org/wiki/Sustainable_development) “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (<https://www.iisd.org/about-iisd/sustainable-development>)

¹⁵⁵ Refer to WWC Chapter 16.16 Critical Areas, WWC Title 23 Shoreline Management Program, and our Resource Lands policies and regulations.

County estimates a 28% population increase by 2040 under a moderate growth scenario;¹⁵⁶ however, the County also estimates that its current urban growth areas (UGAs) can only accommodate an additional 6% population growth.¹⁵⁷ This discrepancy between population growth and available land will create additional pressure on increasing commercial and residential developments that may have high vulnerability to climate change and further displace the natural ecosystem services that support life on earth.

Table 2.4. Commercial and Residential Developments are Land Highly Vulnerable to Climate Change.

 Commercial & Residential Development High Vulnerability	
Exposure	High While incorporated cities and urban growth areas compose only about 3% of Whatcom County's total acreage, more than 58% of Whatcom County's population resides in these areas.
Sensitivity	High Whatcom County's developed areas are vulnerable to coastal and riverine flooding risks, which are projected to increase under climate change.
Adaptive Capacity	Medium Whatcom County has outlined growth management and land development strategies for the next 20 years in its 2016 Comprehensive Plan, with consideration for climate change. The County has also completed flood management plans for the Nooksack River and alluvial fans, but there is still need for further assessment and integration of climate change impacts into floodplain management.

Mitigation and adaptation to climate change will require the County to prioritize low impact and sustainable community development outside of climate impact zones, which involves thinking about how a community is designed from a land use perspective.

Buildings, transportation systems, and infrastructure must minimize impact and environmental harm while maximizing efficiency (Fig. 2.17). Sustainable development reduces greenhouse gas emissions by reducing sprawl, enhancing carbon sequestration through open green space and urban forests, conserving energy, water, and natural resources, and preserving critical ecosystems and the connections between them.

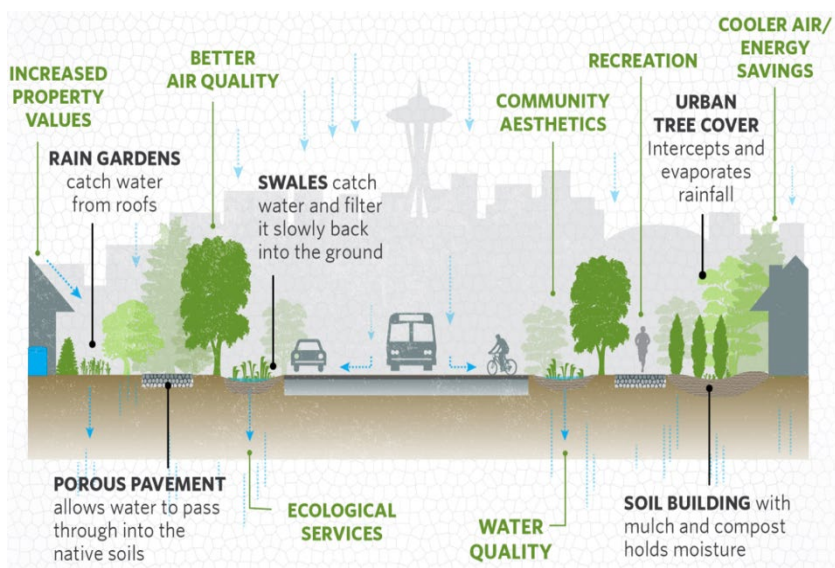


Figure 2.17: Example of sustainable development components, such as green infrastructure, worth considering in a sustainable development framework or model. Source: The Nature Conservancy

¹⁵⁶ Washington Office of Financial Management, "Growth Management Act population projections for counties: 2010 to 2040," State of Washington, December 2017. <https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections/growth-management-act-population-projections-counties-2010-2040-0>.

¹⁵⁷ Whatcom County, "Whatcom County Comprehensive Plan," 2018.

The County needs to establish and implement a sustainable development framework and code that informs and dictates future development. Furthermore, the County, in conjunction with the cities, must assess the suitability of land for development based on climate resilience characteristics.¹⁵⁸ Coordinating with the cities when it comes to Countywide development is key. City urban growth areas (UGAs) consist of the city and surrounding unincorporated area designated by the county as UGA, appropriate for annexation and urban development. There are also three UGAs that are not associated with a city.¹⁵⁹

Replacing Conventional Design with Conservation Design. Conventional design refers to “residential developments where all the land is divided into house lots and streets, with the only open space typically being undevelopable wetlands, steep slopes, floodplains, and storm water management areas.”¹⁶⁰ Problems with the conventional design include poor pedestrian infrastructure, minimal to nonexistent open green spaces, and fewer natural environments for plant and wildlife habitat.

By contrast, conservation design (Figure 2.18) “refers to residential developments where... half or more of the buildable land area is designated as undivided, permanent open space”, which can be achieved by “designing residential neighborhoods more compactly.”¹⁶¹

Conservation subdivisions are allowed, but the County needs to actively promote, incentivize, or require conservation designed land use and incorporate green infrastructure into the development strategy. While conservation design is desirable in all County zones, it is particularly important for rural areas and resource lands, to help protect high ecological value lands and increase climate resilience.

Green Spaces for Urban Forests.

Development with more open and green spaces, such as urban forests, parks, and community gardens, can increase carbon sequestration and enhance surrounding habitat. The County can promote carbon capture and sequestration in public areas by adding new goals and policies to the



Figure 2.18: Architectural renderings depict a town filling in with development while preserving open space.

Source: Steve Wright, Conservation Subdivisions: Good for the Land, Good for the Pocketbook.

¹⁵⁸ This assessment should be informed by and in conjunction with the Whatcom County [Review & Evaluation Program \(Buildable Lands\)](#). “Components of the Review and Evaluation Program include updating county-wide planning policies, annual collection of data, developing a buildable lands program methodology, reviewing achieved densities, evaluating land suitable for development, and issuing a final report by June 30, 2022. The information contained in the final Review and Evaluation Program Report will inform the next update of the Whatcom County Comprehensive Plan, which is due by June 30, 2025.”

¹⁵⁹ For City UGAs, the city has sole authority relating to development that happens within the city limits. The county has land use authority over the portion of the UGA outside city limits; however, the seven cities have policies in place that generally do not allow extension of public water and sewer outside city limits. The result is that urban residential development typically does not occur in these UGAs until annexation.

¹⁶⁰ Arendt, Randall. *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*. Washington, D.C.: Island Press, 1996

¹⁶¹ Ibid

comprehensive plan that promote open green spaces, urban forests, street trees, and low impact landscaping practices.

In addition to carbon sequestration, tree canopies provide a number of environmental, economic, and human health benefits, including 1) managing storm water by intercepting rainfall from ground run off, 2) reducing the urban heat island effect, thus decreasing heating and cooling costs, air temperatures, and air pollution, 3) increasing property values, 4) providing wildlife habitat, and 5) improving quality of life (Fig. 2.19).¹⁶²

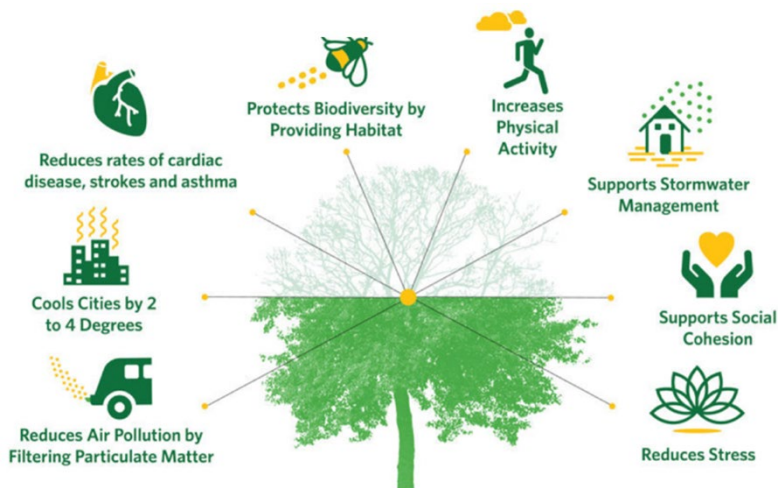


Figure 2.19: *Source: The Nature Conservancy*

The County can promote urban forests by expanding and strengthening Countywide tree canopy requirements and retention in existing and new developed areas of all sizes. This will require an implementation timeline, encouraging best practices for tree health and maintenance, collection of canopy data, and tracking tree removal and replacement to best understand short-term canopy changes.¹⁶³

Reevaluating tree regulations can protect existing canopy and ensure that trees are replaced with right sized and more climate resilient native trees. The County can also collaborate with the seven cities and private landowners to create a network of street trees, adding trees on roads with County right of ways, and increasing tree planting requirements and incentives for all public and private projects, especially for transportation and infrastructure projects. Perhaps tree canopy requirements can be conditions for obtaining permits for any new or expanded developments, where trees must be replanted on site or elsewhere commensurate to the trees removed as a way to mitigate for loss of habitat and natural carbon capture and sequestration. Compensative tree planting or funding for said tree planting can help development achieve net ecological gain while reforesting critical county lands. The City of Vancouver, Washington has a model urban forestry program worth exploring.¹⁶⁴

Codes and Zoning. Updating and strengthening land use codes and housing regulations can further encourage dense, sustainable, low impact, and energy efficient development. The County should prioritize strategies and expand incentives for compact development where consistent with the Growth Management Act. Strategies could include density bonuses, inclusionary zoning, clustering subdivisions to preserve green spaces, urban villages or mixed housing such as smaller homes on smaller lots,

¹⁶² Urban Watershed Protection, Urban Tree Canopy, <https://www.cwp.org/urban-tree-canopy/>

¹⁶³ Whatcom County Water Resource Protection Overlay districts currently have tree canopy regulations including replacement and retention rules, but they can be expanded and strengthened. For example, regulations still allow for removal of trees younger than 50 years old without replacement requirements. Refer to tree removal and retention in [Chapter 20.51 Lake Whatcom Watershed Overlay District](#) to inform a countywide tree policy.

¹⁶⁴ Vancouver has strict and specific policies around tree removal and significant penalties for developers who do not adhere. They have dedicated staff who can educate and advise the community and developers regarding tree protection and maintenance. They also have an appointed Urban Forestry Commission to advise staff and policy makers. <https://www.cityofvancouver.us/publicworks/page/urban-forestry>

accessory dwelling units, duplexes, town homes, and multifamily complexes. These strategies should be encouraged in developable lands within urban growth areas (UGA). For non-UGA portions of the County, developers can cluster homes with a reserve area that is protected in perpetuity for open spaces, non-motorized trail easements, community gardens, etc.


The County can also encourage cities to develop their own infill housing toolkit,¹⁶⁵ subsidize the cost of sidewalks for qualifying developments, and explore public-private partnerships for parking, wetland mitigation and restoration, and stormwater management. Densely developed communities can reduce water and energy consumption, improve utility efficiencies, increase use of alternative transportation modes, and improve community infrastructure such as interurban trails and pathways for bicyclists and pedestrians.

A compact community equipped with a robust alternative transportation system, combined with access to reliable broadband, can significantly help reduce single occupancy vehicle miles travelled, therefore reducing the demand and use of fossil fueled vehicles and subsequently reducing carbon emissions.

In addition to reviewing and updating land use codes and regulations, the County should require a climate impact vulnerability assessment for all new large-scale development¹⁶⁶ including a lifecycle analysis of greenhouse gas emissions in industrial development and incorporating carbon offsets in carbon-intensive commercial or industrial uses. Increasing impact fees for major projects in rural areas and building incentive programs such as fast-tracking permits and reducing permit fees for sustainable, low impact development will shift development behavior.

Wildland Urban Interfaces or WUIs are areas where development meets and mixes with undeveloped natural areas such as forests or grasslands. These areas are highly sensitive to wildfires which cause damage to buildings, infrastructure and public health. During the 20-year period between 1990 and 2010, 20% of Whatcom County's population growth occurred outside urban growth areas. This dispersed urbanization will increase cost burdens related to firefighting in the future. The overall climate vulnerability of wildfires in WUI areas is medium, especially if stricter international building codes for

Table 2.5. Climate Vulnerability Assessment for Wildland Urban Interfaces.

 Wildland-Urban Interface Medium Vulnerability	
Exposure	Medium Whatcom County's population mostly resides in developed and urban areas, but 20% of growth between 1990 and 2010 occurred outside of these areas. The eastern portion of the County, which has a smaller portion of the population is most at risk of wildfire.
Sensitivity	High Wildland-urban interface areas are particularly vulnerable to fires that have the potential to cause significant damage to public health and infrastructure.
Adaptive Capacity	Medium The Lummi Nation and Whatcom County's Conservation District participate in the national Firewise Program, helping offset some of the vulnerabilities to changes in climate. However, fewer resources and funding are secured for WUI fire prevention.

¹⁶⁵ City of Bellingham as an example: <https://cob.org/gov/dept/pcd/infill-housing-toolkit>

¹⁶⁶ A climate impact vulnerability assessment should be highly encouraged, but not required, for smaller scale development including for single-family houses on existing lots. It should be noted that these assessments might increase cost of residential housing development. Housing affordability is already a barrier to many residents in Whatcom County, and we acknowledge this as an unintentional consequence.

fire-resistant structures are adopted by the County (Table 2.5). A new WUI map has been developed for Whatcom County.¹⁶⁷

The Lummi Nation has entered a cooperative agreement with the state Department of Natural Resources, allowing the agency to respond to wildfires on the Reservation.¹⁶⁸ In addition, Whatcom's Conservation District has established six active "Firewise" communities, equipped with resources and materials to understand and address wildfire risk and provides free wildfire risk assessments for property owners.¹⁶⁹

Key Priorities for Sustainable Land Development:

- *Establish and implement a sustainable development framework and code that incorporates green infrastructure, greater development density and energy efficiency, and no or low impact to natural systems focusing on net-ecological gain.*
- *Promote, incentivize, or require conservation designed land use and expand tree canopy county-wide.*
- *Require a climate impact vulnerability assessment for all new large-scale development and increase impact fees where climate vulnerability is high.*

Strategy 2. Enhance Active and Public Transportation Systems.

Land use is an important consideration when it comes to the planning, development, and implementation of an active and multimodal transportation system. As discussed in [Transportation](#), Whatcom County must consider ways to reduce vehicle miles travelled (VMT) by single occupancy vehicles with internal combustion engines. There are three main ways to reduce VMT: 1) restrictive land use policy in unincorporated portions of the County, 2) incorporating transit-oriented land use planning and development, and 3) compact development of building amenities close to residential neighborhoods.

The Whatcom Mobility 2040 report predicts a substantial increase in VMT resulting from the projected growth in households and employment. This increase in VMT would be even greater in unincorporated areas if not for the rural land protections in the Washington's Growth Management Act.¹⁷⁰ Future transit service is also influenced by land-use decisions.

The County can improve transportation efficiency including increased accessibility to transit services and enhanced bicycle and pedestrian infrastructure by incorporating the transit-oriented development framework in land use planning. According to the Washington State Energy Strategy, "Transportation efficiency can be implemented in two basic ways. The first is to reduce the need for travel, which means either shortening the distance that people and goods travel (e.g., through improved urban design) or avoiding the need for trips altogether (e.g., via telemedicine). The second way is to shift travel to more efficient modes, such as public transit or maritime freight transport, which can move more passengers

¹⁶⁷ Whatcom County 2021 Natural Hazards Mitigation Plan, Section 2.1, pg 146.

<https://www.whatcomcounty.us/DocumentCenter/View/56370/1-2021-NHMP-Full-Public-Comment-Draft-v4-May18-PubComm--SECTION-2>

¹⁶⁸ Lummi Natural Resources Department, "Lummi Nation Climate Change Mitigation and Adaptation Plan: 2016-2026," 2016.

¹⁶⁹ Whatcom Conservation District, "Community Education & Risk Planning," [Online]. Available: <https://www.whatcomcd.org/wildfire-community-education-and-risk-planning>.

¹⁷⁰ Whatcom Council of Governments, Whatcom Mobility 2040, https://whatcommobility.org/wp-content/uploads/2020/11/WM40_COMPLETE.pdf

or goods per trip.”¹⁷¹ Furthermore, the lowest-cost strategy to reduce VMT is to combine land-use policy (focusing on compact, transit-oriented development (TOD)), enhancement of transit service, and transportation demand management policies.

The lowest-cost strategy to reduce vehicle miles traveled is to combine land-use policy, enhancement of transit service, and transportation demand management policies.

Transportation Demand Management (TDM) is influencing people’s behavior to use the existing infrastructure in more efficient ways. Both “carrots and sticks” are needed to reduce VMT. A few examples of TDM policies that have been instituted by employers:

- Employee transit benefits (e.g., free or subsidized bus passes; incentives for walking/biking; etc.)
- Showers, changing rooms, secure/protected bike parking, protected bike lanes, etc.
- Daily pricing for parking; free parking for carpools
- Flexible work schedules or telework

The County should consider requiring a multimodal transportation plan for all new planned multi-unit residential, commercial, or industrial developments and subdivisions. A transportation plan can help identify and ensure community access to public transit options, and determine the impact on traffic congestion, access to basic services, and emergency response including safe evacuation routes. Transportation plans can also facilitate connectivity between communities, ensuring that people can travel efficiently. Efficiency and accessibility are major factors in determining if people will choose something other than a single occupancy vehicle for their regular commute trips.

Establishing transit-oriented land use policies and standards can influence development near transit corridors or develop new transit corridors that can serve a concentrated population. One example might be to require that new residential projects consisting of 25 units or more be located within a half mile of a transit node, shuttle service, or bus route with regularly scheduled daily service. The County may also encourage or require developers to coordinate with the Whatcom Transportation Authority to see where additional bus routes and bus stops may be established relative to new residential, commercial, and industrial development.

In addition to transit service, access to safe bicycle and pedestrian infrastructure will encourage more people to bike or walk. Developments should set aside land for trails to connect to existing urban or rural trail systems and the planned regional trail system to promote non-motorized commuting and recreational benefits. The positive health impacts and reduction of obesity resulting from biking and walking are well documented. Trails for non-motorized travel should also be planned and developed for existing community developments. This may require a revision to setback requirements or collaboration with cities or state agencies where existing rights of way exist.

Implementing “Complete Streets” development principles and standards can help the County achieve a more user-friendly alternative transportation system, especially for more rural communities. Complete Streets “are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street” and “may include sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.”¹⁷²

¹⁷¹ Washington State Energy Strategy, Department of Commerce, <https://www.commerce.wa.gov/wp-content/uploads/2020/12/Washington-2021-State-Energy-Strategy-December-2020.pdf>, 52

¹⁷² <https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/what-are-complete-streets/>

Public multimodal transportation may not be an option for everyone in every community. As such, the transition to EVs by automakers will significantly reduce SOV GHG emissions going forward. The County needs to establish additional park and rides at potential transit nodes and trail systems and ensure that building and land use codes support the installation of electric vehicle charging stations. Large parking lots and park and ride lots that have good solar exposure can serve a dual use as a community solar installation (Figure 2.20). Siting electric vehicle



Figure 2.20. Dual-use parking lot and solar panels. Credit: Masha Yakhkind.

charging stations in multifamily housing complexes and public hubs such as park and rides, parks, and shopping centers can maximize their convenience and use.

Finally, actions outlined in the Washington State Energy Strategy can help future transportation funding and planning in Whatcom County. For these actions, the County should consult the State, Tribes, and other local governments including the seven Whatcom cities and Skagit County. State actions include “take steps to incentivize and remove barriers that restrict TOD” and “link cross-jurisdictional coordination and community engagement with funding related to the planning and implementation of land-use policies, TOD, TDM measures, transit and active transport infrastructure development and other measures designed to reduce VMT and enhance accessibility and mobility.”¹⁷³

The County should also be aware that the Energy Strategy recommends that “the Legislature should fund WSDOT and Commerce to provide centralized assistance for jurisdictions to support development and implementation of model code related to corridor planning, ‘smart growth’ zoning and land-use policies, transportation-oriented design, and related infrastructure development.”¹⁷⁴ These potential funding sources are critical to ensuring implementation of this plan’s transportation and infrastructure goals, strategies, and actions as they pertain to land use.

Key Priorities for Transportation:

- **Improve the accessibility of transit and active transportation including promoting safe bicycle and pedestrian infrastructure and implementing the Regional Trails Plan**
- **Require a multimodal transportation plan that facilitates alternative transportation (e.g., park and ride, connection to bike and walking trails, bus stops and electric charging) for all new planned multi-unit residential, commercial, or industrial developments.**

¹⁷³ Washington State Energy Strategy, <https://www.commerce.wa.gov/wp-content/uploads/2020/12/Washington-2021-State-Energy-Strategy-December-2020.pdf>, 55

¹⁷⁴ Washington State Energy Strategy, 55

Strategy 3. Build Green Infrastructure to Enhance Climate-Resilience and Reduce Environmental Impact.

The County needs to establish a “green” or climate resilient infrastructure criterion and develop a plan that identifies, protects, connects, and re-greens the landscape. Green infrastructure can help the County combat climate change while also protecting the environment, wildlife habitat, and natural resources. Green infrastructure includes existing forested and natural ecosystems as well as bioswales, rain gardens, and permeable pavements, all of which help filter polluted stormwater runoff close to its source, and green roofs that can help sequester carbon.

Bioswales and raingardens provide habitat for certain birds and other species and even provide linkages to large habitats if planned accordingly. In addition, green infrastructure includes renewable energy systems, modernization of the electric grid, electric vehicle charging stations, broadband (which enables smart technology), and wastewater treatment. Culverts are also critical infrastructure, and when removed or replaced, can improve habitat and fish passage

As a part of the green infrastructure plan, the County should identify critical infrastructure, such as roads, bridges, and emergency services at risk in climate impact zones and develop plans to flood proof, relocate or remove. It is also important to retrofit, or develop new, roads, bridges, and culverts to be climate resilient and to incorporate sea level rise, storm surge, and flood predictions into design requirements (Fig. 2.21). All new County infrastructure must adhere to the new criteria, which would be designed to protect critical watersheds and ecosystems.

Green infrastructure can be integrated into both new and existing structures to reduce greenhouse gas emissions. For example, developers and building owners can install green roofs or solar panels to mitigate carbon emissions.



No migration – fish stuck below the culvert restored!



Freedom to migrate up and down

Figure 2.21: [Source: Nooksack Salmon Enhancement Association](#)

Additionally, access to broadband creates opportunities for smart grid, smart buildings, and smart transportation and infrastructure. High-speed broadband can be used to collect and analyze energy data from devices or sensors, and even to remotely control these devices to improve efficiency and reduce

energy costs.¹⁷⁵ The data can also help cities and counties address issues such as traffic congestion and develop policies to improve a community's resilience to climate change.¹⁷⁶

Additional sustainability outcomes include smarter water management, environmental monitoring, multi-modal and advanced transit, and smart buildings.¹⁷⁷ Green infrastructure can come in many forms with many benefits, that the County should consider when planning and developing new infrastructure or replacing old infrastructure.

Key Priorities for Infrastructure:

- ***Establish climate resilient infrastructure criteria to focus investments and protect, connect and re-green the landscape.***
- ***Identify critical infrastructure at risk in climate impact zones and develop a plan to retrofit, relocate or remove.***
- ***Incentivize installation of renewable energy systems and increase access to municipal owned broadband to facilitate grid modernization and become a "Smart County."***

Strategy 4. Protect Climate-Sensitive Natural Resources of High Ecological Value

In the natural environment, we must limit development in critical areas, agricultural lands, and forests in to protect water, natural resources, habitat, wildlife, and ecosystems. Many ecosystem services are already adversely impacted by human activities, and there is growing concern that climate change will further compromise the benefits of intact ecosystems. At the same time, there is growing evidence that restoration of habitat can help mitigate the effects of climate change while helping to avoid much greater costs of future climate impacts.¹⁷⁸ It will take significant investment and devotion of more resources to protect Whatcom County farmland, forestlands, shorelines, and riparian corridors.

Currently, the County is exploring mitigation options for developers who want to develop on or near wetlands that allows them to invest in the enhancement of degraded wetlands or restore high-value wetlands. It is important that the mitigation occur at the site of degradation and restore the services that are being harmed or lost by the development. If mitigation occurs in other locations, there is no guarantee as to whether key ecosystem services provided by the wetlands are accurately identified and restored. For example, if the wetland provides flood control, ecosystem services can be lost at the location of development and mitigation elsewhere would not restore it. Enhancing current mitigation requirements for all new development in the County will help minimize degradation to the natural environment.

The next section on the Natural Environment discusses in more detail the importance of protecting Whatcom County's water resources, fisheries, agriculture, forestry, and ecosystems. From a land use perspective, zoning lands strategically can help limit development in sensitive areas and protect ecosystem services and natural resources essential to building climate resilience. One way to

¹⁷⁵ Yesner, Ruthbea, "Accelerating the Digital Transformation of Smart Cities and Smart Communities," Microsoft.
<http://info.microsoft.com/rs/157-GQE-382/images/Accelerating-the-Digital-transformation-of-smart-cities.pdf>

¹⁷⁶ Ibid

¹⁷⁷ Ibid

¹⁷⁸ <https://blogs.ei.columbia.edu/2019/06/28/nature-based-solutions-climate-adaptation/>

permanently conserve critical lands is through exploring a compensatory re-zone program where landowners subject to a re-zone receive a portion of the estimated value of rights removed.¹⁷⁹

Furthermore, limiting or concentrating development ensures that critical working lands, including forest and agricultural lands, are not converted to residential or commercial use. Aside from the carbon sequestration benefits, productive agricultural lands are key to preserving the local food system. Forest lands not only sequester carbon, harvestable forest lands support a thriving local timber economy and natural forests serve as critical habitat for wildlife. It is also important to recognize that sustainable forest management practices, including in some cases timber harvesting, can help mitigate the impacts of wildfires, which impacts human health,¹⁸⁰ air quality, and agricultural production. The County must remain strategic when permitting commercial forest land, with preference towards limiting or even prohibiting expansion of commercial forest lands in its holdings. Instead, the County must prioritize the protection of existing trees in County lands, parks and forests, fund significant reforestation on lands that have suffered from floods, fire, land clearing or other harms, and encourage reforestation of rural land holdings along community edges that were previously forested.

Whatcom County's significant increase in population over the last few decades has resulted in the loss of working lands. In 2002, Whatcom County established the Purchase of Development Rights program (Fig. 2.22), which has recently been renamed to Conservation Easement Program (CEP). "The CEP program is a voluntary program that compensates property owners for the value of their unused development rights and protects the land through the placement of permanent conservation easements. Conservation easements are perpetual contract agreements where a landowner agrees to protect the values present within the property, such as working farmlands, working forestlands, and important ecosystems. By protecting these areas, we are protecting local economies and local ecosystems for current and future generations."¹⁸¹ To ensure the success of the CEP program, the County would benefit from increasing its capacity by providing additional funding and staff support, which could in turn generate significant additional funds available in state and federal grant opportunities.

In addition, the County can protect natural resources through strategic conservation and land use planning. First, the County needs to consider climate change vulnerability and adaptation when updating plans pertaining to shoreline management, shoreline restoration, watershed management, salmon recovery, critical areas ordinances, floodplain management, and flood hazard assessments. More specifically, with guidance from the State, Whatcom County should thoroughly incorporate climate change, salmon recovery, and net ecological gain throughout the Comprehensive Plan and the corresponding development regulations, including the Shoreline Management Program, Critical Areas Ordinance, and other County codes.

¹⁷⁹ Many of these strategies and actions, such as compensatory rezones, will require a source of funding. Subsequent chapters will consider potential finance tools as current county budget and resources are already constrained.

¹⁸⁰ According to the Whatcom County Climate Vulnerability Assessment for Land Use & Agriculture, "Wildfire smoke can exacerbate current health conditions and is linked to long-term health issues like asthma and respiratory disease. Vulnerable populations include people with respiratory and cardiovascular diseases, middle-aged and older adults, children, and those who are pregnant. Particle pollution from wildfires is particularly dangerous for adults 65 and older. This age group has already grown by 43 percent in Whatcom County between 2010 and 2019 and is expected to continue growing across Washington State. The risk is increased for emergency workers and first responders tasked with responding to wildfires. By the 2050s, Western Washington is projected to have 12 more days annually with very high fire danger compared to the 1971-2000 average, indicating that wildfire smoke may become more common, putting more people at risk of exposure."

¹⁸¹ <https://www.whatcomcounty.us/573/Purchase-of-Development-Rights-Oversight>

Net ecological gain is defined as a standard for a comprehensive plan in which the ecological integrity is improved and enhanced as a result of mitigation measures, leaving it better off than before. The County would benefit from developing an ecosystem conservation plan that prioritizes protection of critical habitat and vulnerable wildlife. All future planning and development in Whatcom County, especially in rural areas, should be informed through a climate resilience and natural resource enhancement lens.

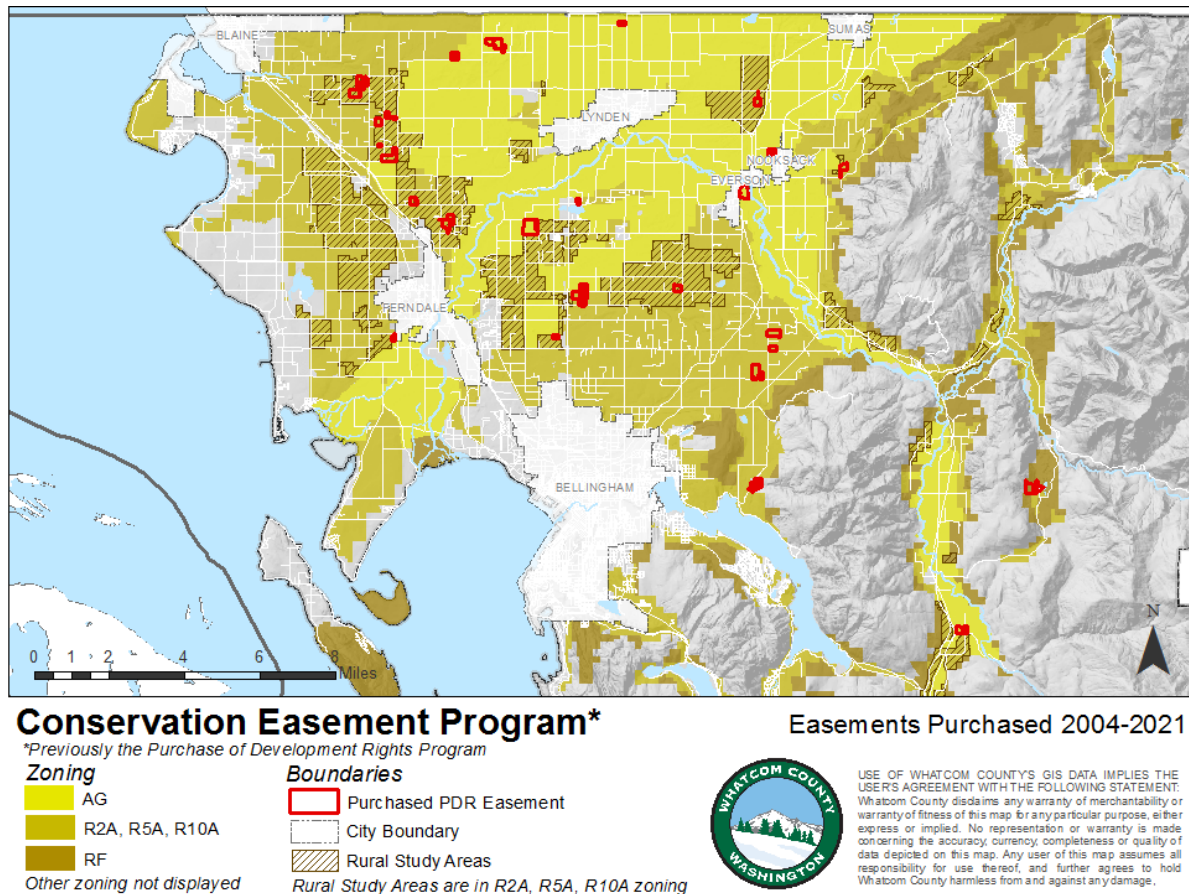


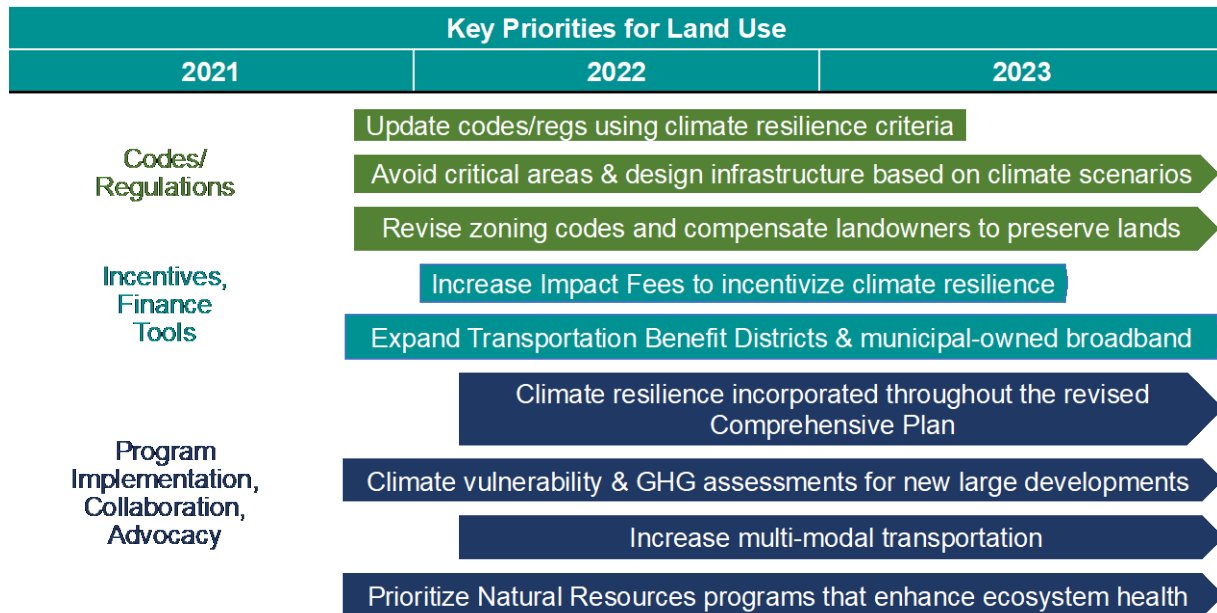
Figure 2.22. Whatcom County Conservation Easement Program map.

Key

Priorities to Protect Climate-Sensitive and High-Ecological Value Natural Resources:

- **Significantly reduce and limit developments in climate impact zones, critical areas, wetlands, floodplains, agricultural lands, and forestry areas to protect key ecosystems services, critical core habitat and wildlife corridors.**
- **Increase capacity of Whatcom County's Conservation Easement Program**
- **Assess climate change vulnerability and adaptation when updating the County's various plans that involve natural resources.**
- **Incorporate climate change, salmon recovery, and net ecological gain throughout the Comprehensive Plan and Whatcom County Code**

Timeline and Summary of Strategies and Actions



Land Use Strategies and Actions

1. Create a Climate Resilient Regulatory Framework for Sustainable Land Development: Develop and implement a sustainable and climate resilient regulatory framework for new County developments (residential, commercial and industrial).	
Actions	
1.1	Use climate resilience as a criterium for updating the Comprehensive Plan, land use codes and building codes in rural areas. Consider building energy efficiency and density, drought-tolerant landscaping, and maintenance of tree canopy cover. Also revise codes to encourage the siting of community-scale renewable energy.
1.2	Update land use/housing regulations to concentrate new developments in urban growth areas (UGAs) that can be serviced by city utilities to eliminate expansion of septic and well water systems. Promote increased building energy efficiency and density of single and multifamily housing and encourage cities to also increase density to reduce urban sprawl. Provide incentives to build mixed-use neighborhoods.
1.3	Exclude residential development in riparian corridors, floodplains, and on shoreline areas subject to storm surge. In addition, preserve rural and commercial forest lands and agricultural lands.
1.4	Require climate impact vulnerability assessments and projected GHG emissions and mitigation in the planning of large new county residential, commercial or industrial developments.
1.5	Collect or increase impact fees in rural areas to help offset the climate-related costs to the County. Use these fees to fund projects that reduce GHG emissions and promote climate resilience.
1.6	Use the updated County Wildland Urban Interface (WUI) map from the DNR to require International Building Codes in WUI areas to reduce wildfire damage.

2. Enhance Active and Public Transportation Systems: Employ County land use policy and regulations and public investment to enhance transportation systems and infrastructure and increase transit ridership.

Actions

- 2.1 Require multimodal transportation plans for new large-scale developments,¹⁸² and encourage for smaller developments, to identify public multimodal options, impact on traffic congestion, access to basic services and emergency response, safe evacuation routes, as well as improved quality of life.¹⁸³
- 2.2 Promote equitable transit-oriented development policies and standards that support efficient use of land, affordable housing developments near transit corridors, reduced volume of single occupancy vehicles, and increased urban access and circulation within the UGA.
- 2.3 Work with Whatcom Transportation Authority to ensure service is planned for high density areas. The target should be for new residential projects consisting of 25 units or more to be located within 0.5 mile of a transit node, shuttle service, or bus route with regularly scheduled daily service.
- 2.4 Require bicycle/walking trail infrastructure planning and development in new multi-unit developments, long subdivisions, and in developments where relevant County codes already require sidewalks. Emphasize trail connectivity to schools and services.
- 2.5 Expand Transportation Benefit Districts under RCW Chapter 36.73 to fund transportation projects that reduce greenhouse gas emission such as new trails, electric vehicle charging stations, and park and ride lots.
- 2.6 Require new County buildings be located in areas with convenient multimodal transportation systems, including public transit and bicycle/walking trails. Include an assessment of employee commute emissions and projected public emissions based on the current transportation options.

3. Build Green Infrastructure to Enhance Climate-Resilience and Reduce Environmental Impact.

Actions

- 3.1 Develop a climate resilient infrastructure plan that identifies, protects, connects, and enhances ecosystem resilience. Require all new county infrastructure to meet resilient criteria. Plan should identify critical infrastructure, such as roads, bridges, and emergency services at risk in climate impact zones or related hazardous areas and a plan to upgrade or relocate.
- 3.2 Avoid infrastructure development in critical watershed areas, wetlands, high value ecosystems, and climate impact zones.¹⁸⁴
- 3.3 Prioritize replacement or retrofits of all county culverts that impact fish passage with fish friendly and climate resilient alternatives.
- 3.4 Collaborate with the Port of Bellingham and Whatcom PUD to fully fund and implement municipal-owned broadband service, especially in rural and underserved areas.

¹⁸² For residential development, examples of large-scale developments may include planned unit developments, manufactured home parks and subdivisions, trailer/mobile home parks, and large multi-family residential complexes. For commercial and industrial, major industrial development as defined in [RCW 36.70A.365](#).

¹⁸³ Are there thresholds proposed? If a duplex or a minor commercial addition is proposed, will they have to do the plan? How will this add to the cost of housing and other development?

¹⁸⁴ Refer to [WCC Chapter 16.16 Critical Areas](#) definitions for critical watersheds and ecosystems

4. Protect Climate-Sensitive Natural Resources of High Ecological Value: Protect riparian corridors, floodplains, shorelines, wetlands, and migration corridors by incorporating science-based future climate scenarios in County code and increasing acquisition of voluntary conservation easements.

Actions

- 4.1 Accelerate and increase funding for the County’s Conservation Easement Program to compensate landowners willing to sell conservation easements.
- 4.2 Revise zoning codes to reduce development potential in high value working lands and ecosystem areas, including the Rural Study Areas¹⁸⁵ and climate impact zones. Consider zoning changes based on water availability. Compensate landowners subject to a rezone based on the estimated value of the rights removed.
- 4.3 Update the Whatcom County Comprehensive Plan to require 1) net ecological gain as a component of land use actions (HB 1117¹⁸⁶), and 2) vulnerability assessments using science-based future climate scenarios.
- 4.4 Develop and implement a County ecosystem conservation plan or program that implements protection of critical habitat, critical core wildlife habitat, and climate migration corridors, and incorporate into relevant county plans and codes, as currently assigned to the Wildlife Advisory Committee.

Conclusion

Solutions for climate change mitigation and adaptation require planned intervention in the built environment and protection of the natural environment. “Whatcom County’s land use and development policies will play an important role in building resilience to projected climate impacts like warming temperatures, shifting precipitation patterns, wildfires, floods, and droughts.”¹⁸⁷

Whatcom County’s land use planning, policies, and regulations intersect all sectors considered in this Climate Action Plan including electricity and buildings, industry, transportation, infrastructure, water resource management, working lands, and ecosystems. To fully mitigate and adapt to climate change, the County must be strategic in all future growth and development, and integrate watershed management, salmon recovery, and climate action planning within the broader land use planning processes.

The goal is to concentrate development within the urban growth areas to preserve working lands and critical areas. Climate and natural resource-informed comprehensive planning and land use policies can help protect productive working lands, natural resources, and ecosystem services. The County must address its large and growing carbon footprint by reducing the environmental impacts of buildings, industry, land development, transportation, and infrastructure. Considering climate change and natural resources in all County land use policies is necessary to meet greenhouse gas emission reduction goals and ensure mitigation, adaptation, and resiliency to climate change.¹⁸⁸

¹⁸⁵ https://www.whatcomcounty.us/DocumentCenter/View/44710/Final_Rural-Land-Study-Report-2019-Update

¹⁸⁶ <https://app.leg.wa.gov/billsummary?BillNumber=1117&Year=2021&Initiative=false>

¹⁸⁷ Whatcom County Land Use and Agriculture Vulnerability to Climate Change Factsheet

¹⁸⁸ <https://unfccc.int/topics/land-use/the-big-picture/introduction-to-land-use>

SECTION 3 - NATURAL ENVIRONMENT

Introduction to the Natural Environment

Whatcom County is home to a wealth of natural resources, but these natural environmental systems are under an increasing threat from unsustainable development and climate disruption. Humans already directly affect more than 70% of the global, ice-free land surface, and about a quarter of this land surface has been degraded.¹⁸⁹ Climate change is exacerbating land degradation, because land surface air temperature has risen nearly twice as much as the reported globally averaged temperatures. Increases in the frequency and intensity of extreme weather events have contributed to topsoil removal, food insecurity and in general, declining ecosystem health. If we do not act immediately, we may risk losing some of the things that make Whatcom County such a wonderful place.

Perhaps the natural resource most directly threatened by climate change is water and in particular, freshwater. Water is the fundamental resource that supports our fisheries, forests, agriculture, and other critical ecosystems that support life on earth. Freshwater resources represent only about 3% of the total water on earth of which about 1% is readily available for human use.¹⁹⁰

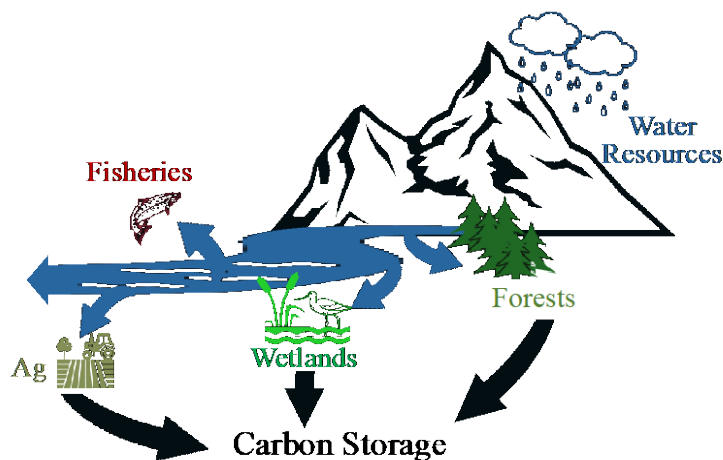


Figure 3.1: Water is the key resource for healthy ecosystems and carbon storage.

Rising stream temperatures are putting stress on our local salmon runs resulting in fewer fish for everyone. Climate change projections predict that 40 miles of the Nooksack River will exceed the thermal tolerance of salmon by 2040.¹⁹¹

Ecosystems in the Salish Sea are also suffering from the cumulative impacts of 150 years of development and climate stressors.¹⁹² The climate impacts of ocean acidification and sea level rise threaten our fisheries and shellfish industry and destroy important shoreline and estuary ecosystems that are a vital part of the marine food chain. The three-day heat dome in June of 2021 literally “boiled” nearshore sea creatures critical to ocean food chain.

¹⁸⁹ Climate Change and Land, An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. A Summary for Policymakers. January 2020. https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf

¹⁹⁰ NASA Freshwater Availability, <https://earthdata.nasa.gov/learn/toolkits/freshwater-availability>

¹⁹¹ Floodplains by Design and The Nature Conservancy, 2018. Climate Change in the Nooksack River: A quick reference guide for local decision-makers: <https://cig.uw.edu/our-work/decision-support/floodplains-by-design/>

¹⁹² Sobocinski, K. L. (2021), The State of the Salish Sea, G. Broadhurst and N.J.K Baloy (Contributing Eds.), Salish Sea Institute, Western Washington University, <https://doi.org/10.25710/vfhh-3a69>

The natural environment in this plan includes those ecosystems that are threatened by climate disruption, but also can be part of the climate solution, especially in their role as natural sinks for large quantities of carbon (Fig. 3.1). Cropland, grasslands, forests, riparian corridors, wetlands, and estuaries serve many critical functions in addition to carbon storage, such as clean water, clean air, soil formation and food production to name a few. These are vital functions that play an important role in carbon uptake and storage and must be resilient to climate change.

As emphasized in Section 2 of this report, land use is a valuable tool that can reduce GHG emissions and enhance natural carbon sinks (Fig. 3.2). Sustainable management practices, incentives and education can increase the carbon storage potential of cropland, forests, and wetlands. Wetlands are also a vital component of watersheds that support the overall hydrologic system.

Increases in forest cover not only increase carbon dioxide uptake but can also alleviate some of the negative impacts of climate change by

decreasing surface temperatures through evapotranspiration. Land use conversions to grassland, developments (settlement) or other lands results in a release of about 160 thousand MT CO₂e per year in Whatcom County.¹⁹³ This amount of land conversion is not sustainable and would add about 1.6 million tons of GHG emissions this decade.

The addition of the natural environment in this Climate Action Plan signifies both the importance of natural ecosystems in achieving climate resilience and the increasing threat to these systems and our quality of life in Whatcom County. As expressed often and eloquently by Native Americans, we are temporary occupants and passing custodians of these natural resources and they must be protected for future generations.

This section provides an assessment of the current knowledge available on the status of the natural environment in Whatcom County and how these resources can be strengthened to build climate resilience.

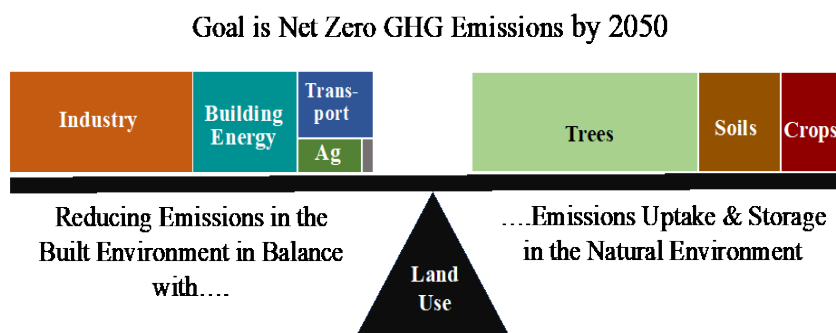


Figure 3.2: Using the natural environment along with significant emissions reduction in the built environment to help rebalance GHGs.

¹⁹³ ICLEI sponsored study on the GHG Inventory for Forests and Trees Outside Forests for Whatcom County. 163,000 MT CO₂e was the average per year emissions over a ten-year interval from 2000-2010 for Whatcom County.

Water Resources and Fisheries

The landscape of Whatcom County has changed greatly over the past 150 years. The lowland forests have been nearly eliminated, the lower Nooksack River has been leveed with a large percentage of wetlands ditched or filled, permeable ground surfaces have been replaced with impervious surfaces and developments, and upland forests have been harvested multiple times in most places and most recently with short-duration harvest rotations. Watershed¹⁹⁴ functions and the interrelated hydrologic systems have been adversely impacted by these changes and in many cases the habitats they support are degraded. Recent studies suggest that young Douglas fir plantations are inefficient when it comes to water use and may reduce late summer streamflows by up to 50% as compared to mature and old growth stands.¹⁹⁵ With the projected impacts of climate change, a healthy, intact watershed is critically important.

Water resources in Whatcom County include the rivers, streams, floodplains, wetlands, estuaries, glaciers, and aquifers. These resources supply water for multiple municipal, domestic, industrial, and agricultural uses; provide habitat for all life stages and migration corridors for salmon and other aquatic and non-aquatic species; store and convey floods; support recreation and resilient ecosystem processes; and contribute to the natural character and beauty of our county.

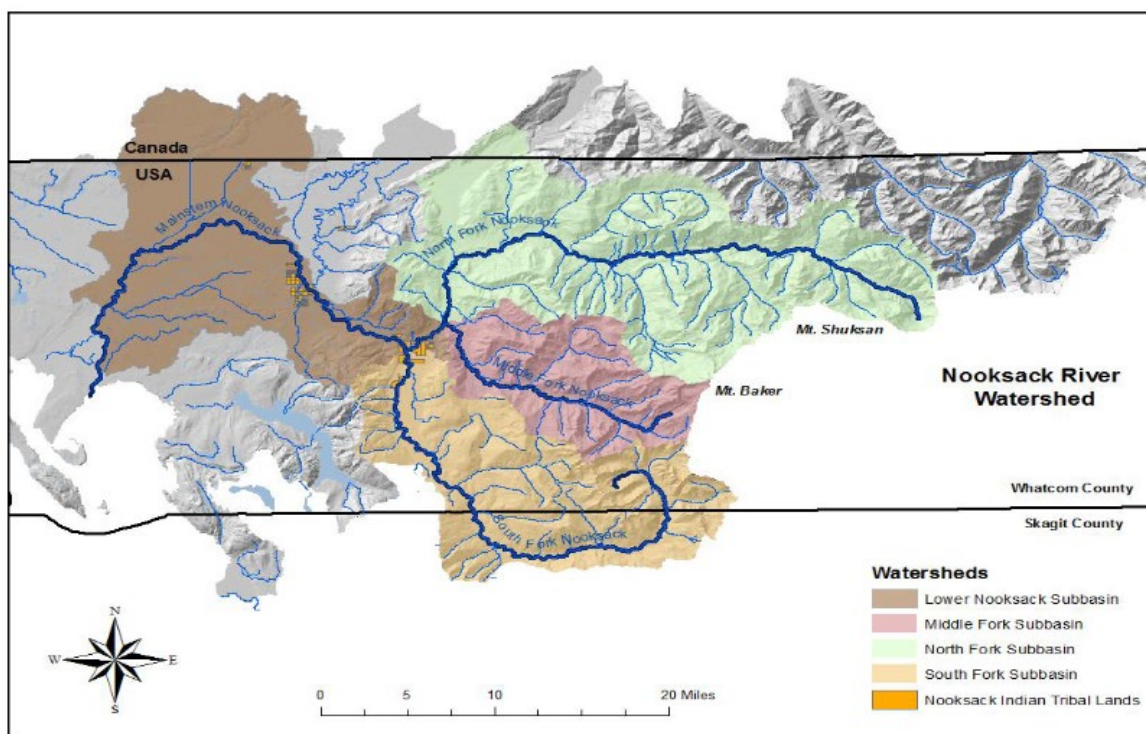


Figure 3.3. Nooksack River Watershed.

¹⁹⁴ <https://nplcc.blob.core.windows.net> 1 FINAL Glacier Summary Report_2015.pdf

¹⁹⁵ Perry, T.D., and J.A. Jones. 2016. Summer streamflow deficits from regenerating Douglas fir forest in the Pacific Northwest, USA. *Ecohydrology* 2016:1-13. DOI 10.1002/eco.1790.

Climate change is already having a profound impact on Whatcom’s water resources.¹⁹⁶ More intense, heavy rains,¹⁹⁷ coupled with greater proportion of precipitation falling as rain during the winter instead of snow, will increase the frequency and magnitude of flooding and could overwhelm stormwater systems. Sea level rise¹⁹⁸ and increased storm surge will increase coastal flooding and create a “coastal squeeze”¹⁹⁹ that may result in loss of intertidal wetlands as well as the potential for damage and loss of buildings, roads, and other infrastructure near the shoreline.

The most detrimental factors to salmon survival and restoring sustainable fisheries are declining summer streamflows (Fig. 3.4)²⁰⁰, higher water temperatures, reduced habitat quantity and quality, redd scour loss due to increased peak flows and flooding, and insufficient in-stream river flow. The contribution of glacial meltwater to summer base flows that reduce stream temperatures will, in a matter of decades, be drastically diminished and essentially no longer be available after 2050. In August 2015, total flow in the North Fork of the Nooksack River was 60-95% glacier melt. Glacier melt contribution will be

drastically reduced in the future with continued climate change.²⁰¹ Annual winter snowpack will continue to decline under a warming climate, as well as the types of precipitation (e.g., snow vs. rain) and dynamics (location and amounts per time period).

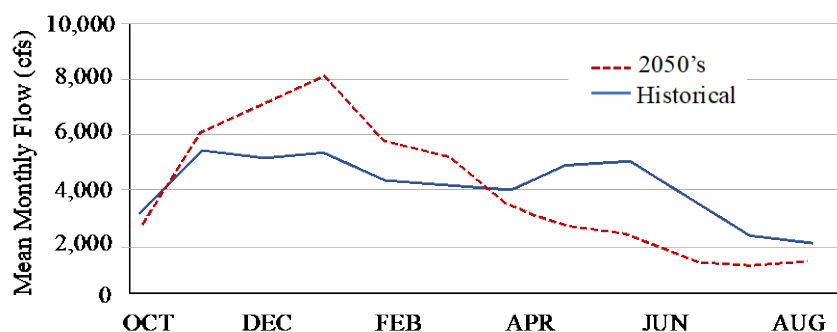


Figure 3.4: Projected Nooksack River flows at Ferndale in 2050's.

Further reductions to the already limited water supply threaten to intensify conflicts over water use.

In addition to the impact of climate change on freshwater systems, Whatcom County’s saltwater fisheries (including shellfish) are threatened by climate change, particularly by the effects of ocean water warming, sea level rise, and ocean acidification. These threats come at a time when other pressures, environmental and economic, have caused decline in fishing activity: for example, the Lummi Nation has only about half the number of active fishers as it had in the early days of the Boldt decision in the mid-1970s,²⁰² and the non-tribal fishing fleet has likely seen similar declines.

¹⁹⁶ Dickerson-Lange, S.E. and R. Mitchell. 2013. Modeling the Effects of Climate Change Projections on Streamflow in the Nooksack River Basin, Northwest Washington. Hydrological Processes, Published Online in Wiley Online Library

¹⁹⁷ Office of the Washington State Climatologist, "PNW Temperature, Precipitation, and SWE Trend Analysis Tool," March 2019. [Online]. Available: <https://climate.washington.edu/climate-data/trendanalysisapp/>. [Accessed 25 October 2019].

¹⁹⁸ NOAA, "Sea Level Rise Viewer," [Online]. Available: <https://coast.noaa.gov/slr/#/layer/fld/2/-13657290.7071441/6246546.839721947/11.015246303680001/satellite/94/0.8/2100/interHigh/midAccretion>, [Accessed 16 January 2020]

¹⁹⁹ Coastal squeeze is defined as intertidal habitat loss which arises due to the high-water mark being fixed by a defense and the low water mark migrating landwards in response to sea level rise.

²⁰⁰ Floodplains by Design and The Nature Conservancy, 2018. Climate Change in the Nooksack River: A quick reference guide for local decision makers. <https://cig.uw.edu/our-work/decision-support/floodplains-by-design/>

²⁰¹ Ryan Murphy, 2016. Modeling the Effects of Forecasted Climate Change and Glacier Recession on Late Summer Streamflow in the Upper Nooksack River Basin. WWU Graduate School Collection. 461. <https://cedar.wvu.edu/wwuet/461>.

²⁰² Kara Kuhlman, "Lummi Nation Climate Change Mitigation and Adaptation Plan, 2016-2026," 2016.

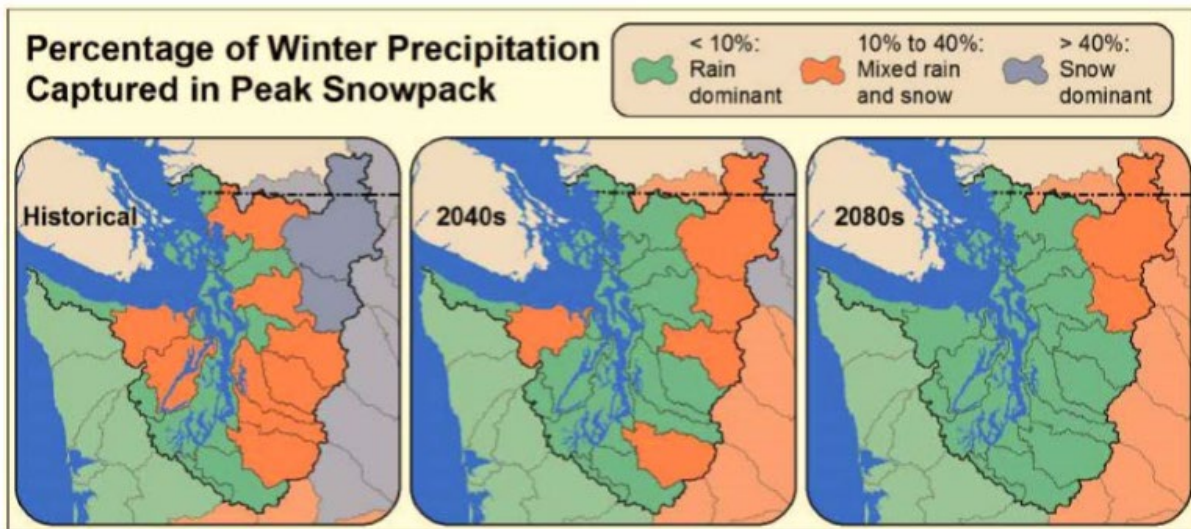


Figure 3.5: Model projections of Puget Sound watersheds suggest a transition to largely rain-dominant basins by the 2080s.

Water Rights and Whatcom County's Role

Waters of the state are a public resource, and a water right is required to beneficially use water. Western water law operates under the doctrine of prior appropriation, or “first-in-time, first-in-right,” based on the date the water is first put to a beneficial use. Beneficial use includes sufficient streamflow to sustain the habitat and life cycle needs necessary to provide a harvestable surplus of salmon that supports treaty-reserved fishing rights. Climate change is predicted to produce drier summers in Whatcom County which will increase water scarcity during critical periods for instream resources like salmon and out of stream water needs such as irrigation for farms.

Management and enforcement of water law is challenged by the sheer number and complexity of water rights in the Nooksack Basin. It has been estimated that up to 40% of all water used in agriculture may lack a legal water right.²⁰³ Both the Lummi Nation and the Nooksack Indian Tribe have petitioned the state Department of Ecology to initiate stream adjudication, a court process that identifies, quantifies, and confirms legal water rights. The Washington state legislature secured funding (SB-5092 in 2021) to initiate pre-adjudication of water rights for the greater Nooksack River Basin, also known as Water Resource Inventory Area 1 (WRIA 1). In addition, funds were appropriated for Whatcom County to initiate a collaborative solution process to complement a water rights adjudication and also to collect additional needed technical water data.

Whatcom County's responsibility for water resources management is primarily assigned to the Natural Resources Division in Public Works. The Planning and Development Services, and the Health Department also support specific water resource review and planning functions. The Public Works Department supports the following water resource management responsibilities:

²⁰³ Community Research Project report, 2019. Document listed at: <https://whatcomcounty.us/3162/Meetings-Additional-Information>

- The River and Flood Division provides emergency flood response and floodplain management services. These services include integrated floodplain management planning, flood risk reduction through capital projects and acquisition of flood-prone areas, repair and maintenance of levees and other flood protection structures, floodplain permitting and administration of the National Flood Insurance Program. River and Flood staff, in partnership with Tribes and agricultural and other stakeholders, lead the Floodplain Integrated Planning (FLIP) process.
- The Natural Resources Division supports and engages in salmon recovery and water resources planning, monitoring, and management. Natural Resources staff support the WRIA1 (Water Resource Inventory Area 1) Watershed Management Board and Planning Unit. Whatcom County serves as the lead administrative agency for watershed management planning efforts.
- Planning and Development staff review development applications, issue development permits, enforce zoning and other development-related codes, and perform long range land use planning for the County. Long range planning efforts include periodic updates of the Comprehensive Plan, Shoreline Management Program, critical areas regulations, and the Coordinated Water System Plan.
- The Health Department responsibilities related to water resources are primarily related to the review and approval of potable water sources and the review, approval, and inspection of on-site septic systems.

Whatcom County's role in fisheries. Whatcom County supports the 2005 WRIA 1 Salmonid Recovery Plan²⁰⁴ goal of restoring healthy, self-sustaining runs of salmon to harvestable levels. The County has also formed shellfish protection districts to improve water quality so that all shellfish harvesting areas are free of fecal contamination and can be opened for harvest. Achieving these goals is essential to maintaining the way of life for the Lummi Nation and the Nooksack Indian Tribe and for the Whatcom County community at large.



Figure 3.6: WRIA 1 Salmonid Recovery Plan map. 2005

Whatcom County has both tribal ceremonial, subsistence, and commercial fisheries and non-tribal commercial and recreational fishing industries. The Lummi Nation and Nooksack Indian Tribe rely on salmon and shellfish and other traditional foods as a major part of their diet and are actively promoting consumption of traditional foods for their health and cultural value. Their rights to “take fish at usual and accustomed places” are guaranteed by the 1855 Treaty of Point Elliott and have been repeatedly confirmed by the courts. Tribal communities continue to fight for enforcement of their treaty rights and maintaining their legal sovereignty, as well as the chance to revitalize their communities economically and preserve their cultural autonomy. In addition to ceremonial and subsistence fisheries, the Lummi Nation and its individual members maintain the largest native commercial fishing fleet in the US, producing salmon, clams, and crabs for sale. The Lummi Nation co-manages several treaty-reserved fisheries. The Nooksack Indian Tribe and its members are also

²⁰⁴ WRIA 1 Salmon Recovery Program, <https://salmonwria1.org/salmon-recovery>

heavily involved in commercial salmon fishing, both in the Nooksack River and in saltwater. Over one hundred commercial fishing boats (tribal and non-tribal) based here operate in the north Pacific, and there are several processing plants in Bellingham, Blaine, and Ferndale, as well as five commercial shellfish producers. Commercial fishing in the County brought in \$320 million in 2013.²⁰⁵

Climate change is an urgent concern to tribal and commercial fishers and shellfish producers, threatening both the way of life and the economic viability of both tribal and non-tribal fishers and shellfish producers. The cultural, social, and economic vitality of tribal communities depends partly on other stakeholders' maintaining and strengthening a relationship of mutual respect and cooperation, so that we can react to climate change and other environmental challenges in ways that preserve the Tribes' legal and cultural rights to subsistence, income, and sovereignty.

Goal and Strategies in Water Resources and Fisheries

Goal: Ensure long-term equitable and climate-resilient water resources in Whatcom County that address the impacts of climate change on water quantity and quality, sea-level rise and storm surge, and the challenges associated with water resource management.

The strategies identified below also support the overarching natural resource goal of promoting adaptation and improving community and ecosystem resilience to climate change.

The nine water resources and fisheries climate strategies support two main areas: the seasonal impacts on water availability (strategies 1 through 5), and the increasing risk and damage from climate-related flooding and storm damage (strategies 6 through 9). There are many cross-cutting issues in water resources that intersect and overlap with agriculture, forestry, ecosystems, and other land uses, which are discussed throughout this larger Section 3 on Natural Environment. Ensuring long-term equitable and climate-resilient water resources will require significant effort. To be most effective, actions pursuant to these strategies should be designated, designed, and implemented as soon as practical to be effective at offsetting the adverse impacts of continued climate change into the future.

The water resources strategies support two main areas: the seasonal impacts on water availability and the increasing risk and damage from climate-related flooding and storm damage.

Climate Strategies in Water Resource and Fisheries

1. Resolve uncertainty in current and future water resources
2. Restore and protect streamflow to a level and temperature that ensures year-round salmon migration and survival and other aquatic and non-aquatic species.
3. Maintain and enhance estuarine, marine shoreline and coastal wetland habitats for fish and shellfish.
4. Reduce water demand through conservation and efficiency
5. Protect existing and develop new or alternative water supplies.

²⁰⁵ Port of Bellingham, The Economic Impacts of the Commercial Fishing Fleet at the Port of Bellingham.
<https://www.portofbellingham.com/DocumentCenter/View/5138/Commercial-Fishing-Impact-Study-2014-FINAL?bidId=>

6. Promote climate resilient floodplain (coastal and riverine) management.
7. Manage riverine floodplains to reduce flood risk and allow for natural processes that increase the capacity to store floodwaters and attenuate flood peaks.
8. Reduce flood risk by moving people and infrastructure out of harm's way.
9. Manage stormwater infrastructure for increased frequency and magnitude of rainfall/flood events.

Strategy 1: Resolve Uncertainty in Current and Future Water Resources

Our local water supply is paramount to the livelihood and economy of the County through its role for salmon, ecosystem services, agriculture, industrial, domestic, and municipal consumption, and diverse cultural and recreational values. Surface and groundwater in the Nooksack River Watershed are the primary sources of fresh water for Whatcom County. Lake Whatcom is the source of water for about 50% of Whatcom County residents.

The Nooksack River streamflow is strongly seasonal. An oversupply of water occurs in the winter and early spring and can often result in flooding. In contrast, a scarcity of water in the summer and early fall results in low stream flows at a time when demand for irrigation is high (Fig 3.7).²⁰⁶

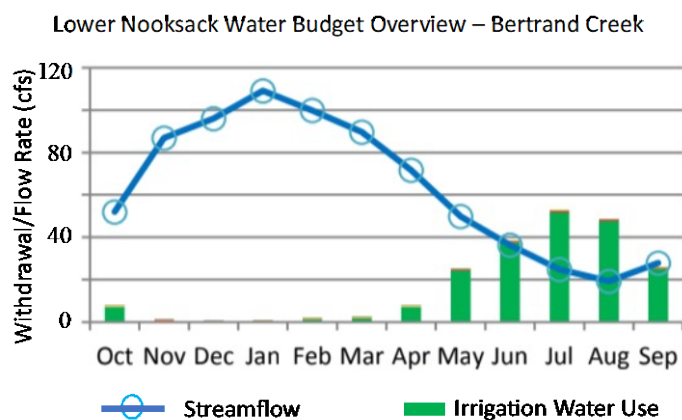


Figure 3.7: Simulated monthly streamflow 1999-2011 and estimated water use (Topnet-WM model as a function of evapotranspiration irrigation efficiencies, crop type and acreage).

Meeting our county's diverse needs with the quantity of water available will only become more difficult with climate disruption.²⁰⁷ A projected shift in the amount and timing of precipitation with significantly less in spring and summer will continue to cause water shortages during the growing season. Glacial melt derived streamflow will increase slightly over the next 30 years in glacial creeks and in the North and Middle Forks and in the lower Nooksack River, but then decrease substantially in the latter half of the century as glaciers disappear (Figure 3.8).²⁰⁸

²⁰⁶ Lower Nooksack Water Budget Overview, WIRA-1 Joint Board. Prepared by Silver Tip Solutions, Hydrologic Services Co., Dumas and Associates, and Associated Earth Sciences, Inc.

²⁰⁷ Climate change in the Nooksack River: A quick reference guide for local decision-makers. Issued by Floodplains by Design and The Nature Conservancy. Based on the UW Climate Impacts Group, State of Knowledge: Climate Change in the Puget Sound, 2015.

²⁰⁸ Ryan Murphy, 2016. Modeling the Effects of Forecasted Climate Change and Glacier Recession on Late Summer Streamflow in the Upper Nooksack River Basin. WWU Graduate School Collection. 461. <https://cedar.wwu.edu/wwuet/461>



Figure 3.8. Recession of the Coleman Glacier on Mt Baker Between July 2003 and July 2021. Credit: John Scurlock

Moving forward on solutions to our water supply has been stymied by several issues that start with accurate measurements of our water supply and use. Approximately 20% of irrigation water for agriculture is drawn from the Nooksack River system and lowland tributaries, and the remaining 80% comes from groundwater – mostly the Abbotsford-Sumas aquifer that extends into Canada.²⁰⁹ Considering only direct withdrawals from the Nooksack River is deceptive, because withdrawals from shallow aquifers, like the Abbotsford-Sumas aquifer, that feed the river system also have a direct impact on stream levels.

While predictions of climate change impacts to specific water quantity concerns may contain uncertainty, there is sufficient confidence in the projected climate trajectories that indicate efforts to conserve, plan and adapt for less water availability will benefit regional resilience. The LENS Area Numerical Groundwater model²¹⁰ should be used to support implementation of the WRIA 1 Watershed Management Project. This regional model will provide a better understanding of groundwater and surface water interactions to allow resource managers to make decisions on how to allocate water for existing and future uses and how to mitigate impacts while maintaining sufficient instream flow. Data supported water planning and implementation will improve the climate resilience in the Nooksack River Basin and ensure a stable economic future and healthy environment.

Throughout this Climate Action Plan we have stressed the need for actual information/data as a foundation for formulating strategies and for measuring the effectiveness of strategies and actions. For example, it is anticipated that strategy 1 will provide the information needed to implement strategy 2 including the following:

- What are the minimum flows (in cubic feet per second) that must be maintained for fish health and long-term sustainability, and how do these values vary across watersheds and season?
- How much do stream flows need to be increased, where (by sub-basin watershed), and when?
- How are we to achieve this goal of increasing streamflows?

²⁰⁹ Henry Bierlink interview, April 12, 2019, Community Research Project report, <https://whatcomcounty.us/3162/Meetings-Additional-Information>

²¹⁰ Lynden, Everson, Nooksack, Sumas (LENS) area of Whatcom County. Chuck Lindsay (Associated Earth Sciences, Inc.), Gilbert Barth (S.S. Papadopoulos and Assoc., Inc.), and Christina Bandaragoda (University of Washington).

- What are the costs to do that?
- What entities are responsible for the projects that increase streamflows?
- What are the determinants of success to know when flows have increased sufficiently?

Key Priorities for Strategy 1:

- *Use climate change projections to estimate future water availability.*
- *Use the LENS model with climate projections to estimate the impact of different sectors on stream flow levels.*

2. Restore and Protect Streamflow to a Level and Temperature that Ensures Year-Round Salmon Migration and Survival

Instream flow levels in the Nooksack River, which help support salmon life cycle needs, frequently fall below state requirements in the summer and fall. Recent studies suggest that flow in the Nooksack River has been declining since the late 1800's and that minimum instream flows at Nugent's Corner currently are not met approximately 112 days of the year. By 2075, minimum instream flows may not be met for as many as 190 days.²¹¹ As a result, water quantity in Whatcom County has been the subject of much debate, planning, and at times, legal action over the last several years.

A combination of hotter temperatures, lowered stream flows, and historic removal of shade from riparian forests has raised the temperature of our creeks and rivers, to the point that temperatures in some areas are sub-lethal to lethal to salmon and trout. High water temperatures can also promote bacterial infections that can kill early Chinook salmon adults before they are able to spawn.

The South Fork Nooksack River in particular experiences dangerously high summer and fall water temperatures that threaten "early" or "spring" Chinook, that enter the Nooksack River in the spring and migrate upstream where they can stay for several months before spawning in August and September. Cool, deep pools with woody cover provide important resting areas where fish are safer from predators and disturbance and can conserve their energy for spawning. If the water table is lowered by increased irrigation or municipal use, these cool pools may no longer provide this needed refuge.

The North and Middle Forks of the Nooksack River receive a significant amount of their summer flow from snowfields and glaciers on Mount Baker, keeping water temperatures lower than on the South Fork. As glaciers shrink with lower snow accumulation rates each winter, there will be less summer water and less cool water in the future.

To maintain a healthy aquatic ecosystem it will be necessary to increase stream flows when they drop below a critical level. In addition, the scientific basis for the current minimum instream flow standards is in question and may be a low estimation of actual needs. There are numerous recommended approaches proposed to improve streamflow in upland and lowland streams. Efforts are underway to evaluate the role of forest hydrology in streamflow and significant projects are proposed in the South Fork Nooksack River basin to assess this approach. Restoration of forest hydrology also improves fish habitat, reduces sedimentation, and increases carbon storage across the landscape.

²¹¹ Grah, O. 2019. "Nooksack Indian Tribe Climate Change Project - Glaciers and Planning for Climate Change." PowerPoint presentation to TRIBAL WATER in the PACIFIC NORTHWEST, Law Seminars International, September 19, 2019.

Projects are also proposed for stream augmentation which may be an effective way to increase streamflow from deep groundwater sources. These projects can generate the data needed to justify a change in state water regulations and laws that impact our ability to enhance stream flow under a changing climate.

Multiyear demonstration projects should involve most areas of the Nooksack River basin that typically experience low instream flows during the summer and early fall. Volunteers and staff from different organizations could collect data on the economic, social, and environmental impacts of this augmentation demonstration project. Ultimately, the information collected will be used to develop best practices and legislative fixes of state water laws and regulations as needed.

Salmon hatcheries, including two operated by the Lummi Nation and the Kendall hatchery operated by the Washington Department of Fish and Wildlife, have partially mitigated the effects of habitat loss on salmon runs. However, even enhancement by hatcheries may not be able to keep pace with the effects of diminished flows and warmer water on salmon reproduction.

Increasing air temperatures, declines in the depth and area of winter snowpack, retreat of snowlines to higher elevations, shrinking glaciers, and decreasing summer precipitation are expected to continue to disrupt freshwater systems, habitats, and watershed functions in Whatcom County. It is important for communities and natural resource managers to monitor, maintain, and adapt water policy to prepare for the risks and impacts associated with climate change.

Key Priorities for Strategy 2:

- *Develop demonstration projects to increase streamflow and lower stream temperatures.*
- *Restore and protect wetlands, riparian zones, and upland forested headwater areas.*

3. Maintain and Enhance Estuarine, Marine Shoreline and Coastal Wetland Habitats for Fish And Shellfish

Aquatic habitat loss is a prime factor in endangering our salmon runs, other fish resources, and shellfish production. We can halt and reverse habitat loss and degradation through removing hard shore protection, restoring wetlands to promote structural complexity and biological diversity, and promoting mechanisms for sediment transport and deposition.

With 3 feet of sea level rise by 2100 predicted by many climate models, much of the current intertidal shellfish habitat could become permanently under water, reducing the total area available for shellfish production. Sea level rise may result in erosion of the estuaries of the Nooksack and other streams, impacting habitat for juvenile salmon. Attempts to armor shorelines to protect coastline residences and infrastructure can exacerbate the effects of sea level rise by causing waves to bounce off the bulkheads and erode the beach, impacting intertidal habitats for shellfish and forage fish such as sand lance and surf smelt. It is possible that in a few areas the shoreline and associated shellfish beds could move inland to places two to three feet higher elevation, but this is not certain.

Declining pH of ocean water is perhaps the most serious threat to our fisheries, particularly shellfish. Oysters, clams, and mussels cannot “set” shells when the water becomes too acidic, and some growers are already having to add basic materials to the water where shellfish larvae begin to set shells, or to seed larvae elsewhere and bring the juveniles here for maturation. Other disruptions may happen in the

marine food web. For example, Dungeness crabs, a key source of food and income for both Native and non-tribal fishers, probably will suffer declines in many of their prey species.

Warmer ocean water incidents in the Eastern Pacific in recent decades, including the famous “blob” that formed from 2015 to 2018 and repeated El Niño events, also bring warmer waters. This affects the distribution of the marine organisms that salmon feed on, and thus the distribution, growth, and survival of salmon in the Pacific Northwest and Alaska. It can also affect the migration routes of salmon returning to spawn; these all have direct effects on the number of fish available to local tribal and commercial fishers for harvest and to return to the spawning grounds to sustain the populations.

Ocean waters also become more stratified during warm water events; this promotes red tides, which have recently lasted longer into the fall, affecting the safety of our shellfish harvests. Rising ocean temperatures also promote toxic algal blooms as well as *Vibrio* and other bacteria, which release toxins rendering oysters that are toxic to humans. In addition, competing invasive species, such as the European green crab, have moved northward recently because of rising ocean temperatures. Other important tribal subsistence resources, such as sea urchins and sea cucumbers, also have their reproductive cycles shifted in time with changes in ocean temperatures.

The Shoreline Management Program (SMP) requires the County to understand the current and potential ecological functions and processes provided by shorelines, understand how exempt development will impact these ecological functions, and include policies and regulations to address the cumulative impact on these ecological functions. The SMP can be significantly strengthened by consideration of climate change and sea level rise. The permitting of new building developments and associated infrastructure that may be in place for decades must be evaluated using projected risks of sea level rise, storm surge and flooding over the projected lifetime of the building, road, or bridge. Coastal and riverine flooding will increase in magnitude and frequency.

Whatcom County is currently participating in the development of a local Coastal Storm Modeling System (CoSMoS) which will further inform the extent of potential impacts of sea level rise combined with storm surge, wind currents, barometric pressure, and other environmental factors. This effort will support selection of an actual sea level rise elevation scenarios and identify shoreline impact zones. New County code language is needed that clearly identifies the projected impacts of sea level rise and increased impacts of riverine and coastal flooding. Code improvements must also require applicants pursuing development within the shoreline jurisdiction to perform a climate vulnerability assessment for the proposed action and highlight mitigation measures proposed to address projected climate impacts. This language will support applicants in mitigating climate risk to their private investment and will support local government in protecting public safety, private property, and environmental health. Some developments in Whatcom County might already exist in climate impact zones subject to sea level rise and coastal storm processes. Whatcom County must support property owners to evaluate risk and consider necessary actions to protect public safety.

Key Priority for Strategy 3:

- ***Revise codes and regulations for shoreline management to create healthy ecosystems that are climate resilient.***

4. Reduce Water Demand through Conservation and Efficiency

Much can be done to conserve and improve the efficiency of water use in Whatcom County through educational outreach and modification of current practices. Whatcom County has contracted with the Whatcom Conservation District to implement the Enhanced Whatcom Water Alliance Program that promotes water use efficiency and conservation for domestic and municipal users and is also partnering with the District to develop an Agricultural Water Management Program to support farmers in improving water management practices.

Key Priorities for Strategy 4:

- *Incentivize efficiency upgrades to systems that consume large quantities of water such as crop irrigation.*
- *Incentivize increases in soil organic matter to increase water holding capacity of agricultural soils.*

5. Protect Existing and Develop New or Alternative Water Supplies

The County should evaluate and consider developing new sources of groundwater that could replace the use of water withdrawals that impact the streamflow levels in the Nooksack Basin. Both the Birch Bay Water and Sewer District and the City of Ferndale have drilled deep groundwater wells in the past few years that have yielded potable water. For example, Birch Bay drilled an exploration well²¹² that intersected a confined aquifer at a depth of around 600 feet. The available data indicates that the recharge area for the aquifer extends a significant distance into southern British Columbia²¹³ and therefore would not impact water levels in the Nooksack Basin.

The science is just beginning to reveal the deep aquifer potential in Whatcom County and whether this source of groundwater will be able to provide the quantity and quality of water needed for irrigation or municipal and industrial uses. It may also be possible to utilize these deep aquifers in northwest Whatcom County without impairing established water rights or minimum instream flows.

Protection of existing wetlands, aquifer recharge areas, and upland forest hydrologic systems also have significant impacts on streamflow and provide the potential to enhance or increase streamflows in the future. Current efforts to identify, restore, and protect wetlands, aquifer recharge areas, and headwater areas must be significantly enhanced and expanded. This could be accomplished through increased rate of acquisition of conservation easements on these priority areas, development of a carbon credit program to acquire protections on forested watershed areas, and improved protections within development regulations to minimize impacts to watershed health and water supply.

Other approaches for new and alternative water supplies may be as simple as rainwater harvesting to provide water for buildings or yards, advanced wastewater treatment for water reuse, and technologies like reverse osmosis for desalination.

²¹² Dan Eisses, General Manager of the Birch Bay Water and Sewer District, presentation given at the Academy of Lifelong Learning, Whatcom Water Woes II, December 2018.

²¹³ Charles Lindsay, Senior Principal Hydrologist, Associated Earth Science, Inc., personal communication.

Key Priorities for Strategy 5:

- *Develop a better understanding of deep groundwater resources that may augment freshwater needs.*
- *Restore and protect wetlands, riparian zones, and upland forested headwater areas.*

6. Promote Climate Resilient Floodplain Management

In contrast to water shortages in the summer and early fall, climate change is increasing the frequency and intensity of extreme rainfall events in the late fall and winter causing the potential for severe flooding. According to one study, this will result in a 27% increase in Nooksack River streamflows in late winter and early spring, and the 100-year flood event may become the 10-year flood event.²¹⁴ The County's Public Works department, in partnership with Tribal staff and representatives from the agricultural community, is updating the 1999 comprehensive flood hazard management plan through the Floodplain Integrated Planning (or FLIP) process. Whereas the 1999 plan focused on flood hazard management, the intent of FLIP is to develop an Integrated Floodplain Management Plan that addresses flood hazard management, agricultural protection, and salmon recovery needs.

The County, together with the City of Bellingham and Port of Bellingham, is also supporting a USGS project to develop a fine-scale flood risk model for the lower Nooksack River (Compound Flood Model) and coastal areas of Whatcom County that includes consideration of the combined impact of sea level, storm surge and stream flooding under climate change (Coastal Storm Model System - CoSMoS). By including climate change in the FLIP process and the flood risk modeling of the river and coastal areas, the County will have a better understanding of flood risk and economic consequence. In turn, this should lead to improvements in floodplain management, revised land use regulations, and the County's approach to designing and locating infrastructure.

Key Priority:

- *Lower flood risk and damage by implementing actions identified in the FLIP process.*

7. Manage riverine floodplains to reduce flood risk and allow natural processes that increase the capacity to store floodwaters and attenuate flood peaks

The Nooksack River channel has changed dramatically over the last 150 years (Fig 3.9).²¹⁵ The historical meandering stream helped manage the energy flow of water by increasing resistance and reducing the channel gradient. In essence the meandering stream created a wider floodplain that accommodated the peak flows. Log jams were removed in the early 1900s to facilitate boat travel and economic development. This removal reduced the natural braiding and oxbows in the river channel and contributed to a narrowing of the natural channel. Removal of snags, levee construction and removal of riparian zones for agriculture further straightened the channel and increased the gradient.

²¹⁴ Dickerson-Lange, S.E. and R. Mitchell. 2013. Modeling the Effects of Climate Change Projections on Streamflow in the Nooksack River Basin, Northwest Washington. Hydrological Processes, Published Online in Wiley Online Library

²¹⁵ Lower Nooksack River Geomorphic Assessment, Final Report, by Applied Geomorphology, Inc., Element Solutions, Northwest Hydraulic Consultants, and DMT Consulting. February 11, 2019.

This straight river channel and high flow gradient can no longer accommodate the increases in winter and early spring rainfalls that are occurring due to climate change. To reduce flood risk and economic damage, the County needs to establish channel migration zones, reconnect floodplains by lowering or setting back levees and restore habitat in riparian zones.

Connectivity of wetlands and riparian areas to streams provides sources for water-conveyed materials such as sediment, nutrients, and woody debris, while reducing streamflow energy, promoting channel complexity, and providing habitat. Human alterations such as dams, levees, roads, and water withdrawals have reduced stream-floodplain or stream-wetland connectivity among other impacts.

Farming and forested ecosystems are the preferred land uses for historical floodplains. The County needs to increase funding and capacity for the Conservation Easement Program to discourage development in floodplains and re-evaluate land use designations and regulations in light of climate change.

Key Priority for Strategy 7:

- *Restore connectivity of our fragmented hydrologic system to increase water storage and reduce flood damage.*

8. Reduce Riverine and Coastal Flood Risk by Moving People, Development, and Infrastructure.

A recent analysis showed that most US homeowners do not carry sufficient flood insurance to cover flood damage and could face \$18.8 billion in flood damage annually.²¹⁶ For Whatcom County the annual loss per property with substantial flood risk would amount to \$4,000 to \$8,000 per year. Only a few areas in the US have higher annual flood losses. This information is based on an analysis done by the First Street Foundation, which now provides a flood factor risk for homeowners by zip code.²¹⁷ For example, 43% of the properties in Lynden are at risk and annual damage could be as high as \$732 thousand this year.

FEMA has been updating its flood risk rating system using insurance industry approaches that will likely face backlash from homeowners who cannot afford the higher cost of flood insurance.²¹⁸ Many communities are already requesting federal tax dollars to move whole neighborhoods out of high flood

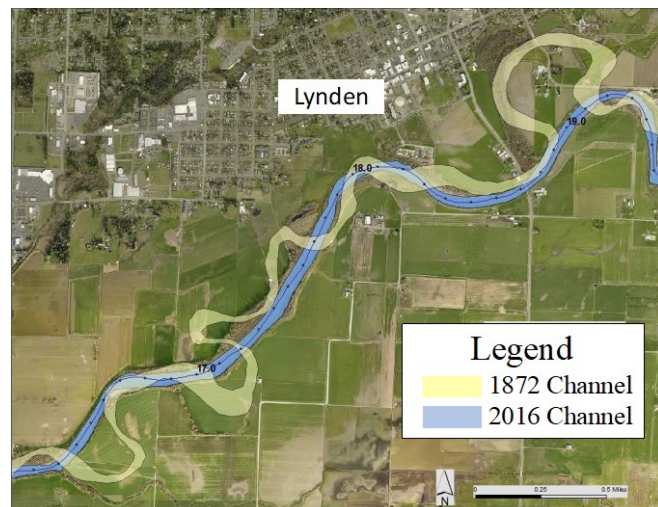


Figure 3.9: Changes in the Nooksack River channel between 1872 and 2016

²¹⁶ Kaufman, L. and M. Rojanasakul. Most Americans Don't Have Enough Flood Insurance for Climate Change, Bloomberg Green, February 22, 2021. <https://www.bloomberg.com/graphics/2021-flood-risk-financial-cost/>

²¹⁷ Find your home's Flood Factor, <https://floodfactor.com/>

²¹⁸ Flavelle, C. The Cost of Insuring Expensive Waterfront Homes is About to Skyrocket, New federal flood insurance rates that better reflect the real risks of climate change are coming. For some, premiums will rise sharply. New York Times, Sept 24, 2021. <https://www.nytimes.com/2021/09/24/climate/federal-flood-insurance-cost.html?referringSource=articleShare>

risk zones.²¹⁹ Moving structures out of harm's way is the only long-term solution to reduce financial risk and ensure public safety. Moving to higher ground was noted by the Lummi Nation as the logical adaptation solution to sea level rise.²²⁰ The County should also evaluate the need to move critical emergency infrastructure and develop a plan.

Key Priority for Strategy 8:

- *Move people and emergency infrastructure based on updated FEMA maps on flood risk and locally developed sea level rise and coastal storm surge maps.*

9. Manage Stormwater Infrastructure for Increased Frequency and Magnitude of Rainfall/Flood Events

Stormwater impacts are projected to increase under future climate scenarios. To effectively protect stream channels, wetlands, and watershed function from increased erosion and water impacts, it is necessary to manage the higher frequency, magnitude, and duration of stormwater flows. Future climate scenarios need to be incorporated into stormwater project design. This includes replacing culverts with structures that can convey increased flow while ensuring fish passage.

Codes and regulations should be updated to minimize impervious surfaces in developments and consideration of green stormwater infrastructure to reduce erosion from large storm events (see [Land Use](#)). The County should also accelerate the construction and retrofit of stormwater flow control system, runoff treatment and infiltration facilities to increase capacity and accommodate future rainfall and flood events.

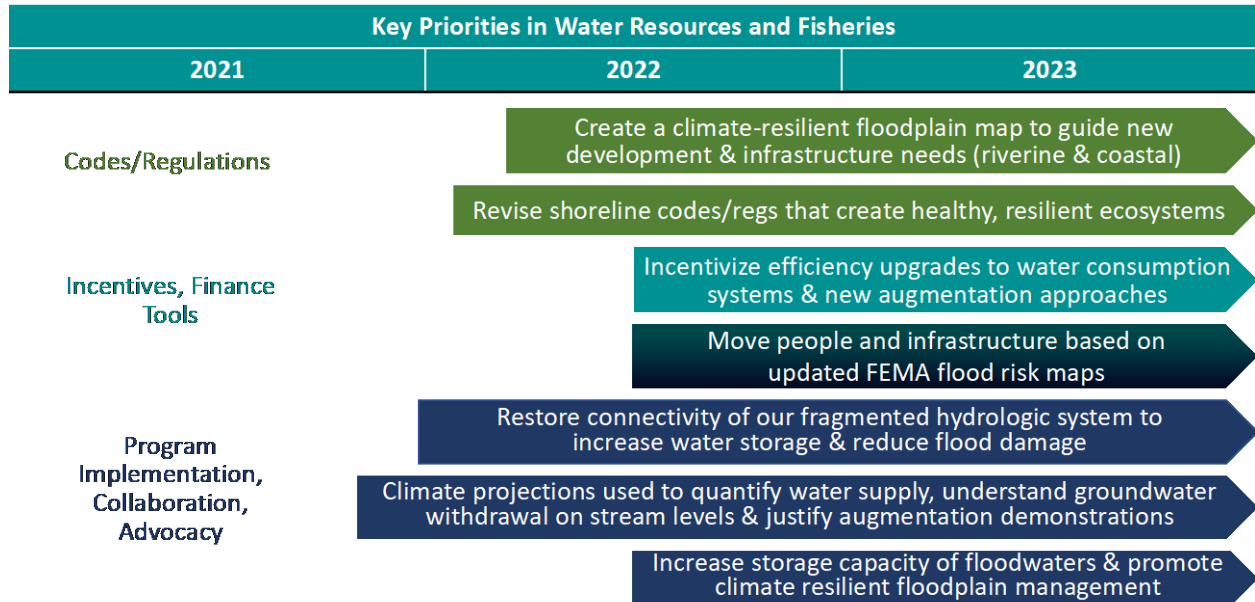
Key Priorities for Strategy 9:

- *Update stormwater infrastructure such as culverts to minimize ecological damage from increased magnitude and frequency of storm events.*

²¹⁹ US Flood Strategy Shifts to 'Unavoidable' Relocation of Entire Neighborhoods, by Christopher Flavelle. New York Times, August 26, 2020. <https://www.nytimes.com/2020/08/26/climate/flooding-relocation-managed-retreat.html?referringSource=articleShare>

²²⁰ Lummi Nation Climate Change Mitigation and Adaptation Plan: 2016-2026 prepared by the Water Resources Division, Lummi Natural Resources Department. February 16, 2016.

Timeline and Summary of Strategy, Actions, Benefits



Strategy, Action, Benefit Table for Water Resources & Fisheries

1. Resolve uncertainty in current and future water supply by accurately measuring water supply and understanding the impact of climate change on watersheds.		
Actions		Benefits of Actions
1.1 Support resolution of WRIA 1 water supply by utilizing groundwater/surface water model analyses of current water use and supply, including projections of future water supply based on climate science. 1.2 Expand monitoring of residential, industrial, and agricultural water use, including metering to ensure an accurate baseline for climate action planning. 1.3 Evaluate smart water meter technologies for application locally. 1.4 Encourage connection to available water systems for households currently using permit-exempt wells. 1.5 Create a County-hosted public database that includes all the relevant field measurements on water levels & other environmental measurements that are routinely collected by various organization in the County.		<ul style="list-style-type: none"> Provides the quantitative information needed to make decisions that will ultimately ensure an adequate water supply. (all actions) "You can't manage what you don't measure." <i>Peter Drucker</i>

2. Restore and protect streamflow and temperature that ensures year-round salmon migration and survival.	
Actions	Benefits of Actions
<p>2.1 Develop and demonstrate projects that increase in-stream flow such as, surface-to-groundwater conversions, restoration of mature forest hydrology, and innovative approaches such as water banking and water spreading.</p> <p>2.2 Prioritize restoration and protection of wetlands in headwater areas and in the floodplain to improve base flows.</p> <p>2.3 Adopt innovative tools to decrease the impact of land use (e.g., forestry, agriculture, development) on summer stream flows such as minimizing impervious surfaces, restoration of mature forests, and maintenance of green infrastructure corridors.</p> <p>2.4 Restrict development that negatively impacts functionality of wetlands and effective aquifer recharge.</p>	<ul style="list-style-type: none"> • Preserve current and future salmon runs in the Nooksack River Basin. (all actions) • Increase the base flows in rivers and streams. (all actions)
3. Maintain and enhance estuarine, marine shoreline and coastal wetland habitats for fish and shellfish.	
Actions	Benefits of Actions
<p>3.1 Include climate change and sea level rise in the codes and regulations associated with the Shoreline Management Program.</p> <p>3.2 Measure ecological function health of shorelines and require vulnerability assessments for new buildings and infrastructure in the shoreline impact zone.</p> <p>3.3 Facilitate shoreward migration of coastal wetlands through removal of hard shore protection (e.g., bulkheads, dikes, seawalls) or other barriers to tidal flow.</p> <p>3.4 Preserve and restore structural complexity and biological diversity when undertaking wetland enhancement activities.</p> <p>3.5 Promote and maintain mechanisms for sediment transport and deposition.</p>	<ul style="list-style-type: none"> • Reduce economic damage to property and shoreline ecosystem functions. (3.1) • Preserve a diverse habitat for shellfish juvenile fish and other marine organisms. (3.2, 3.3, 3.4) • Maintain water clarity and decrease pollution of shellfish beds (3.5)
4. Reduce water demand through conservation and efficiency and improve drought readiness.	
Actions	Benefits of Actions
<p>4.1 Expand outreach and education programs to promote water conservation and efficiency for domestic, municipal, and agricultural water users.</p> <p>4.2 Reduce water demand by promoting drought tolerant landscaping and crops, and promotion of agroforestry principles.</p> <p>4.3 Evaluate/adapt agricultural drainage management to increase storage and promote subirrigation (e.g. permaculture swales, swales on contour, drainage ditch weirs).</p> <p>4.4 Provide incentives and cost-share to support farmers and homeowners to switch to more efficient irrigation processes.</p>	<ul style="list-style-type: none"> • Outreach and education promote public participation in solving the problem. (3.1, 3.2, 3.3) • Rewards early adopters for their efforts to reduce water demand (3.4)

5. Protect existing and develop new or alternative water supplies.	
Actions	Benefits of Actions
5.1 Implement advanced wastewater treatment for water reuse. 5.2 Encourage rainwater harvesting to provide water supply for buildings and agriculture. 5.3 Implement new technologies such as reverse osmosis for desalination. 5.4 Evaluate feasibility and sustainability of deep aquifer resources. 5.5 Protect and restore mature forest hydrology in headwater areas, perennial and non-perennial stream corridors, and upland wetlands. 5.6 Restore mature forest conditions throughout uplands to achieve greater than 50% mature forests to provide improved hydrology and streamflow.	<ul style="list-style-type: none"> • Reuse of water and new aquifer sources will improve water quantity. (5.1, 5.2, 5.3, 5.4) • Increases water quality and quantity through the use of natural systems. (5.5, 5.6) • Alternative source of irrigation or municipal water as demonstrated by the cities of Blaine and Ferndale (5.4)

6. Promote climate resilience by incorporating climate scenarios in all aspects of floodplain management and infrastructure needs.

Actions	Benefits of Actions
6.1 Incorporate probabilistic scenarios for riverine/coastal flooding to inform planning and management and restrict development in the floodplain zone. 6.2 Incorporate future climate scenarios into riverine and coastal floodplain management planning and flood risk assessment. 6.3 Inform landowners, developers, and contractors about the climate change risks of developing in the floodplain (Conservation Reserve Program - CRP). 6.4 Modify flood zone designations, and update County code to incorporate sea level rise/storm surge and increased peak flows.	<ul style="list-style-type: none"> • Reduce the economic losses associated with flooding. (5.1, 5.2, 5.3 5.4) • Smart climate resilience planning reduces taxpayer expenditures on infrastructure damage. (5.1, 5.2, 5.4)

7. Use natural processes that increase the capacity to store floodwaters and attenuate flood peaks to reduce flood risk.

Actions	Benefits of Actions
7.1 Establish channel migration zone and/or meander limits sufficient to accommodate increase in peak flows and sediment. 7.2 Identify and prioritize opportunities to reconnect floodplains by removing, lowering, or setting back levees to reduce maintenance costs, reduce flood risk, and increase opportunity for restoration. 7.3 Restore riparian vegetation and wetlands within floodplains, including prioritization of 300' landward of the historic migration zone.	<ul style="list-style-type: none"> • Natural processes are often the most effective and least costly approach. (all actions)

8. Reduce flood risk by moving people and infrastructure out of harm's way.

Actions	Benefits of Actions
8.1 Identify critical infrastructure at risk of river/coastal flooding and relocate as needed. 8.2 Evaluate public and private developments and develop managed retreat plans as appropriate. 8.3 Acquire properties in the floodplain to reduce repetitive flood loss, reduce need for flood protection, and allow for floodplain restoration. 8.4 Remove development rights within floodplains through voluntary and regulatory pathways.	<ul style="list-style-type: none"> • Ultimately the least costly and most effective approach to reducing damage and the economic losses to individual landowners and County infrastructure. (all actions)

9. Manage stormwater infrastructure for increased frequency and magnitude of rainfall/flood events.	
Actions	Benefits of Actions
9.1 Incorporate future climate scenarios into stormwater management. 9.2 Accelerate construction or retrofit stormwater flow control, runoff treatment and infiltration facilities to increase capacity to accommodate future rainfall/flood. 9.3 Plan, create incentives for, and expand green stormwater retrofit projects such as rain gardens and other low-impact designs. 9.4 Restore fish passage at artificial barriers, prioritizing barrier replacement in cool-water tributaries that can function as cold-water refuge habitat.	<ul style="list-style-type: none"> • Incorporating climate now into stormwater planning will ensure infrastructure integrity into the future and reduce replacement costs. (all actions)

Conclusion

Water, which has always been viewed as a plentiful resource in the Northwest, is increasingly causing damage from oversupply in the winter and scarcity in the summer. In hindsight, many of our current problems with flooding and drought have been caused by humans trying to control and change the natural hydrologic system. Climate change has highlighted and accelerated the problems associated with these past water management approaches. We still have time to adapt our water management approaches to climate change to lessen detrimental impacts, but the sooner we act, the more we can avoid costs to life, property, our environment, and our economy in the future.

Agriculture

Agriculture plays a critical role in Whatcom County's economy, history, and culture. Like other sectors of our economy, agriculture must adapt to climate change to remain economically viable and produce the food we all depend upon. Agriculture can also be a large part of the climate solution through soil carbon sequestration. Nationally, the USDA is focusing on improving soil health and building agricultural resilience that will put farmers in a stronger position as the impacts of climate change begin to mount.

As a part of our human infrastructure and an emitter of GHGs (Fig. 2.2), agriculture could have easily fit into the Built Environment Section of this report. Instead, we chose to place agriculture into this section because 1) the tremendous potential of agricultural soils to sequester carbon, and 2) the need for immediate action in agriculture to adapt to the high temperatures and drought that is already a growing problem, as demonstrated by the losses farmers suffered during the June 2021 extreme heat wave, a type of extreme weather event that is forecast to become more common as global temperatures rise.²²¹ Vulnerability assessments performed for the County in 2019 judged agriculture to have significant exposure—both ecological and economic—to the adverse effects of climate change. These assessments also showed agriculture to be highly sensitive to short- and long-term droughts like the one we experienced in summer 2021.

Agriculture is also central to our concern with climate equity and justice, as our field crops in particular depend on intensive farm labor during the hottest summer months, and farm workers are among those most exposed to the effects of heat waves.

Agriculture in Whatcom County

In 2017 Whatcom County had 1712 farms operating on 102,000 acres.²²² Preserving this acreage provides the foundation for addressing the other impacts to climate change. Over a twenty-year period (1997-2017) nearly three times as much farmland was lost in Whatcom County as compared to the overall losses in western Washington. In response, Whatcom County established a goal to maintain a minimum of 100,000 acres²²³ of agricultural land to support an economically viable industry.

Farmland in Whatcom County is used to grow crops, including food, animal feed, and fiber. With this fertile Pacific Northwest farmland, Whatcom County ranks in the top 3% of farm production in the US and is home to many favorite brands.²²⁴ These include large and small farms producing berries, milk products, seed potatoes, tree fruit, cattle, horses, vegetables, ornamental plants, and others.

In 2017, the total value of agricultural products was \$372 million including \$218 million from animal agriculture and \$154 million from crops. In addition, agriculture creates numerous additional economic benefits locally due to agricultural processing and support industries and consumption of locally grown products.²²⁵

²²¹ *Bellingham Herald* 5 July 2021: <https://www.bellinghamherald.com/news/local/article252532053.html/>

²²² <https://s3.wp.wsu.edu/uploads/sites/2091/2019/08/2017AgStatsSummary.pdf>

²²³ <https://www.whatcomcounty.us/DocumentCenter/View/3989/Land-Cover-Analysis-PDF?bidId=>

²²⁴ <http://choosewhatcom.com/agriculture/>

²²⁵ All figures are from the National Census of Agriculture, 2017.

https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/2/table/1/state/WA/county/073

Several special characteristics of Whatcom County agriculture may impact our ability to adapt to climate change.

- Agricultural land here is expensive, almost tripling in value from 2002 to 2017, and growing more expensive since—often \$20,000 or more per acre with water rights. Farmland rental rates and taxes are also high. This restricts the crops that can be grown profitably.
- The majority of our agricultural products come from family-owned and operated small and medium-sized farms. In 2017, only 42 farms were larger than 500 acres; the average size was 60 and the median only 12. Farms of 10 acres or less have also more than doubled since 2002.
- About half of all agricultural land is irrigated.
- We grow a small number of crops compared to other regions: Dairy products and berries combined accounted for \$292 million, or 78% of total agricultural sales.
- Although the total number of cows has increased since 1950, the number of small dairy operations has decreased dramatically over this timeframe.
- Almost all our agricultural products are sold as commodities and consumed elsewhere; only an estimated 3-5% of locally grown agricultural products are consumed within the county.

To address the small percentage of agricultural products that are consumed locally, Sustainable Connections has developed a comprehensive Eat Local First program that identifies over 60 farms that sell produce, dairy products, and meat directly to the public.²²⁶ Eating local has the advantage of lowering transportation emissions. Eating lower on the food chain is an action that individuals can take to reduce their carbon footprint; however, not all plant-rich diets are low emissions.

Concern for Climate Change in the Agricultural Community

Whatcom County farmers have a strong, often multi-generational sense of stewardship of the land and of the environment and are concerned with the immediate and observable environmental trends and changes. Farmers are also concerned about the economic and regulatory environments in which they must run their businesses.

Washington crops and livestock are being affected by climate impacts such as increasing temperatures and water stress, declining availability of water during the growing season, rising atmospheric carbon dioxide, and changing pressures from pests, weeds, and pathogens (Fig. 3.10). Some impacts on agriculture may be beneficial while others may lead to losses – the consequences will be different for different cropping systems and locations.²²⁷

Higher temperatures will impact crop types, quantity, and quality. Warmer winter temperatures and fewer freezing days have already brought northward movement of insect pests, such as the spotted-winged fruit fly (*Drosophila suzukii*) that attacks raspberries and blueberries. Since the fruit fly appeared, farmers have had to return to the intensive spraying practices of the early 2000s. In addition, two fungal pests, *Botrytus* or gray mold and *Monilinia* or mummy berry, affect raspberries, blueberries, strawberries, wine grapes, and other crops.

²²⁶ Sustainable Connections, <https://eatlocalfirst.org/>

²²⁷ <https://cig.uw.edu/wp-content/uploads/sites/2/2020/12/snoveretalsok2013sec11.pdf>

Like plant pests, animal diseases migrate with changes in climate. Researchers believe climate change, which is creating warmer, drier conditions is contributing to an increase in bacterial infections such as Pigeon fever, which is spreading beyond its historic range.²²⁸ Pigeon fever has recently affected horses here, and it or similar diseases may come to affect cattle.²²⁹

Agriculture in Western Washington is probably less vulnerable than in the interior. Water availability, access to urban markets, and the milder climate of coastal Washington will likely make it easier for agriculture to adapt in this region.²³⁰ Additionally, other parts of the U.S. may experience more extreme climate impacts, encouraging more people to move to Whatcom County, thus increasing pressure to develop agricultural lands for residential purposes.

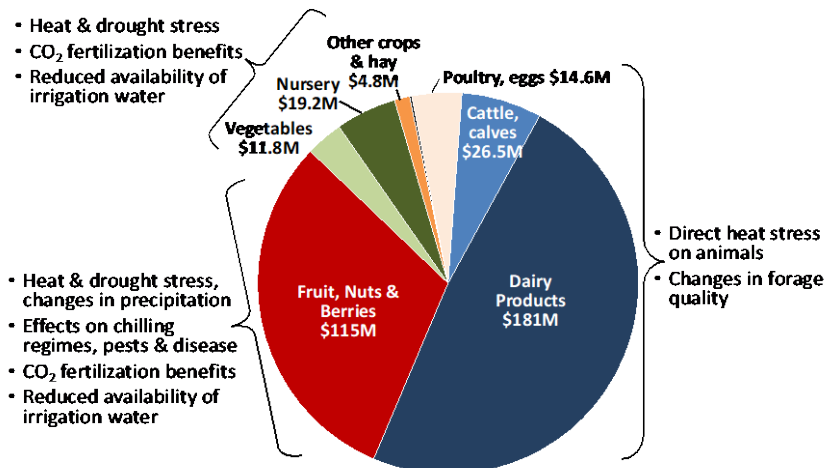


Figure 3.10: Impact of climate change on farm products in Whatcom County using values from the latest census data (2017). Total market value was \$373 million.

Climate change is resulting in a shift in seasonal precipitation – more precipitation in the winter and spring and less in the summer will increase pressure on an already complex and competitive water-rights regime. Water supply is a huge agricultural concern since planting schedules can be delayed by spring flooding and growing seasons often coincide with the dry season. Agricultural irrigation is the largest user of water in the county (44%), and irrigation peaks in August when streamflows are low (Fig. 3.11).²³¹ With decreasing snowpack, more winter precipitation will flow into streams and rivers when fields are fallow or crops do not need to be irrigated, and less water will be available

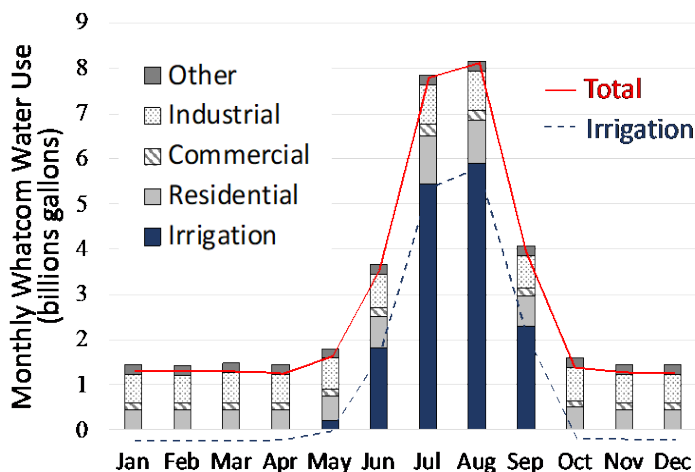


Figure 3.11: Example of monthly water use in Whatcom County (from Hirst, E. "Analysis of Whatcom County Water Use," January 2017: https://nwcitizen.com/images/fileuploads/Analysis_of_Whatcom_County_Water_Use.pdf.)

²²⁸ "Pigeon fever incidence on the rise," EQUUS, May 13, 2021. <https://equusmagazine.com/diseases/pigeon-fever-incidence-rise-25902>

²³² Interview with Michael Anderson, DVM, Doctor of Veterinary Medicine, Whatcom County, WA.

²³⁰ <https://cig.uw.edu/wp-content/uploads/sites/2/2020/12/snoveretalsok2013sec11.pdf>

²³¹ See the UW Climate Impacts Group SWE [Trend Analysis Tool](#) for trends in the last 160 years. For projections, see the [Regional Climate Projections Tool](#) on the same website.

during the summer irrigation season.

Summer water shortages are likely to become much more common. In dry years, the County's irrigation water use typically increases approximately 25%. As precipitation patterns change, demand for irrigation water will increase at the same time the supply decreases. Conditions like those during the 2015 and 2018 droughts or the 2021 heat wave — when crops failed, pastures went dry, and cows gave very little milk because of heat and inadequate water — are likely to become more common.

It's important to note that as winter precipitation increases and more of it falls as rain rather than snow, lagoons, and tanks where dairy manure is stored during the winter may reach their maximum capacity, forcing farmers to cut their herds or increase storage capacity.

Farmers will also face increased competition, particularly for water from the transnational Abbotsford-Sumas aquifer (Fig. 3.12). Aquifer recharge is highly dependent on climate variables and this shallow, unconfined aquifer impacts river and stream flows and aquatic life as well. Currently, groundwater supplies about 80% of the agricultural irrigation needs in the summer. The Abbotsford-Sumas aquifer is highly productive and provides water supply for towns of Sumas, Lynden, and farmlands in the US and cities and farms in Canada, mostly for the City of Abbotsford, but also in the township of Langley. With drier summers and increased use, this shallow aquifer may no longer be adequate to meet water demands sustainably.

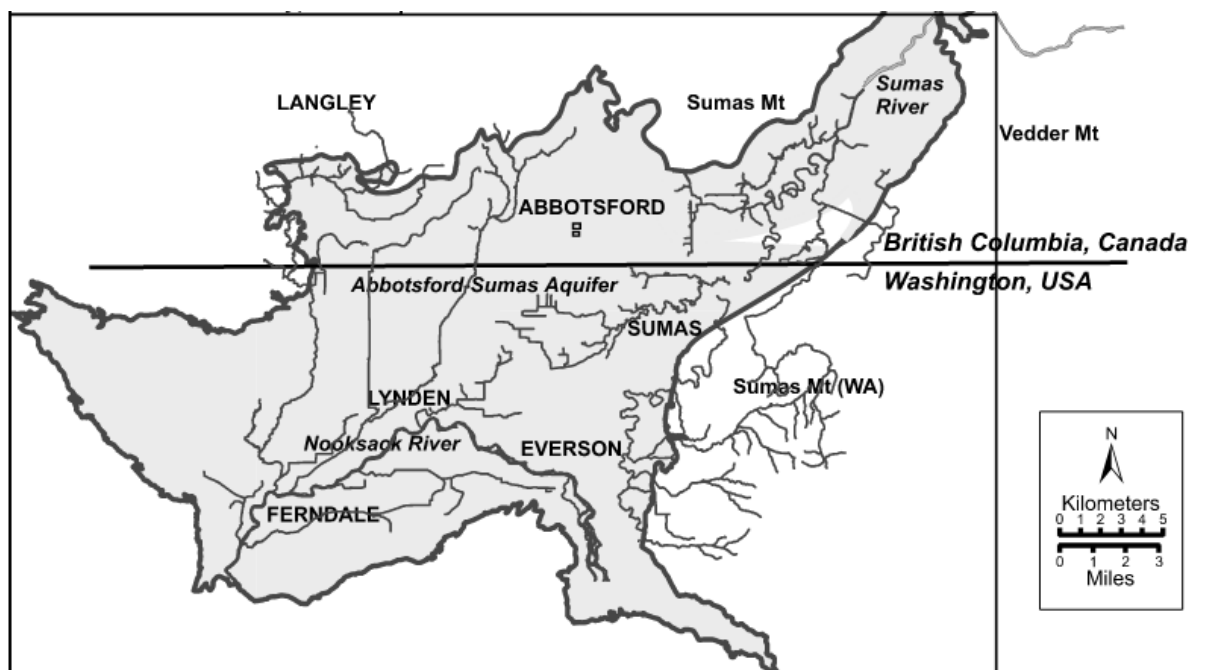


Figure 3.12: Aerial extent of the shallow, unconfined Abbotsford-Sumas aquifer in southwestern British Columbia and northwestern Washington State.

Already, many streams in the Nooksack River watershed are over-appropriated, and many farms lack adequate water rights, meaning they may not be allowed to use surface or shallow ground water sources for irrigation when streamflows are low. Water rights, already a contentious issue, may become even more so, making a just and equitable solution to water allocation the single most vital imperative for climate change adaptation.

Finally, our local agricultural economy depends on farmworkers, particularly in the summer season. Because farm laborers are among our most vulnerable populations, mitigating climate change becomes an imperative of environmental justice. Although heat stress is now a problem only on the hottest days, if temperatures continue to rise there may be more days like those of late June 2021, when field workers are exposed to dangerously hot conditions. Additionally, smoke from more frequent wildfires²³² in increasingly hot and dry summers are also a serious threat, exposing farm workers to dangerous levels of particulate matter, especially on the hottest days. Any actions we can take to mitigate temperature increase in the coming decades will redound to the benefit of these crucial participants in our agricultural community.

Climate Goal and Strategies for Agriculture

Farmers are more likely to support new farming approaches to increase climate resilience if they are economically feasible and address their more immediate concerns of water availability, loss of topsoil and soil productivity, and loss of crops from disease, pests, and extreme weather events.

It will require both mitigation and adaptation strategies to maintain a viable agricultural economy and livelihoods in the County under a changing climate. Several specific and feasible strategies for addressing the problems outlined above are discussed below.

Goal: Employ farm management practices that create climate resilience while at the same time reduce operational costs in agriculture and ensure a viable long-term food supply.

Climate Strategies for Agriculture

1. Adopt farm management practices that maximize soil carbon storage and increase water and nutrient availability.
2. Avoid the conversion of agricultural lands to maintain farm production at a level that sustains a vibrant and climate-resilient agricultural economy.
3. Enlist the agricultural community in preserving and enhancing water storage and stream-flow levels that enable salmon migration, healthy ecosystems, and agricultural irrigation.
4. Reduce agriculture-related emissions and increase renewable energy, while providing farmers with new income and cost-share opportunities.
5. Strengthen agricultural diversity to expand local markets and increase farm incomes.
6. Encourage increases in research and development of drought- and heat-resistant agricultural crops at the state and federal levels and flexible infrastructure to support diversified crops.

Strategy 1: Adopt Farm Management Practices that Maximize Soil Carbon Storage and Increase Water and Nutrient Availability

Agriculture can play a very important role in reversing many of the detrimental impacts of climate change while at the same time reducing the high operational costs associated with modern industrial farming. Modern industrial farming has led to a tremendous increase in food production, but has also led to high operational costs, low profit margins for farmers, and in some cases, unintentional

²³² EPA, Change in Annual Burned Acreage by State, 1984-2001 and 2002-2020 <https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires>

environmental damage. Climate change is further complicating farming practices, and in many areas of the country, rendering these practices unsustainable.

NASA satellite imagery has shown that concentrations of CO₂ increase in April and peak in May across the US. This is attributed both to soils warming and the practice of agricultural tillage. The release of CO₂ to the atmosphere is reduced and carbon storage in soils is enhanced by no-till or low-till farming methods.

Farmers have long known that off-season cover crops can increase the storage of soil carbon and important soil nutrients like nitrogen, while at the same time preventing soil erosion. Farmlands across the US could absorb 276 million tons of atmospheric CO₂ every year or about 5% of annual emissions according to a National Academy of Sciences report.²³³

Managing for soil health is one of the best ways farmers can increase crop productivity while preparing for stresses on crop growth due to climate change. Extreme weather events, such as extended drought and heavy precipitation, are out of landowners' and growers' control; but through effective soil health management systems they can better manage how they prepare for and react to these circumstances. Results are often realized immediately and last well into the future.

No-till, low-till, and the use of cover crops can help stabilize yields, improve agricultural productivity, and build resiliency through increased soil organic matter and enhanced water holding capacity.²³⁴ Four basic principles improve the health of soil and can facilitate agricultural resilience: minimize disturbance, maximize soil cover, maximize biodiversity, and maximize the presence of living roots.²³⁵

- Healthy soil allows more water to infiltrate and retains more moisture, enabling it to effectively absorb extreme rainfall as well as support crops during droughts.
- Adopting soil health systems before extreme events happen can save farmers significant time and money in the long run and preserve the vitality of their soils for many years to come.
- Employing soil health systems by using practices such as no-till and cover crops can help stabilize yields, improve agricultural productivity, and build resiliency through increased soil organic carbon content and soil water storage.
- These practices also benefit the environment, reducing nutrients lost through run-off, replenishing aquifers, and acting as a natural filter for our waterways.

Additionally, the soil additive biochar acts as a sponge for water and nutrients making them available for plant growth and soil microorganisms. Biochar is essentially charcoal and is formed from a process called pyrolysis, where organic matter is burned under low oxygen conditions. The US Biochar Initiative supports increasing the rate of natural carbon sequestration and reducing the emissions of GHGs. Biochar technology can do both.

²³³ National Academies of Sciences, Engineering, and Medicine 2019. *Negative Emissions Technologies and Reliable Sequestration: A Research Agenda*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25259>.

²³⁴ <https://soilhealthinstitute.org/how-does-soil-health-increase-resilience-to-droughts-and-extreme-rainfall/>

²³⁵ https://www.nrcs.usda.gov/wps/PA_NRCSCconsumption/download?cid=nrcseprd1386665&ext=pdf

The conclusion of the recent documentary, *Kiss the Ground*²³⁶, proposes that by regenerating the world's soils, humans can rapidly stabilize Earth's climate, restore lost ecosystems, and create abundant food supplies by exploring the possibilities of regenerative farming (Fig. 3.13). Climate adaptation can be rooted in taking better care of our soils and drawing down carbon from our atmosphere by rebuilding our soils, practicing integrated pest management, nutrient and fertilizer management, and conservation agriculture. The Whatcom Conservation District provides critical support for local farmers interested in increasing their soil health; however, demand for technical support and conservation planning services stretches the District's capacity with current limited cost share funding opportunities.



Figure 3.13: The six principles of soil health from the Soil Health Academy.
<https://soilhealthacademy.org/fact-sheets/>

Increasing soil organic matter has the added benefit of increasing water holding capacity and water availability for crops. The 2018 farm bill included a Soil Health Demonstration Trial whose participants follow certain soil health assessment protocols to enable further research and encourage widespread adoption of practices. Washington state legislators adopted the Sustainable Fields and Farms Program to create a voluntary grant program to support farmers in the implementation of practices that increase the quantity of carbon stored in the land through efficient carbon reduction and sequestration practices. The Washington State Conservation Commission is charged with implementing this program and has currently requested funding from the legislature for implementation.

The USDA is ramping up the Conservation Reserve Program to have higher rental payments and expanding the number of incentivized environmental practices allowed with a more targeted focus on climate change.²³⁷ Farmers enrolled in this program receive a yearly payment to preserve environmentally sensitive areas that are difficult to cultivate, such as wetlands, from agricultural production.

Changing farm practices to promote soil health is a long-term investment and an excellent first step in creating greater climate resilience in our agricultural economy. Whatcom County can help farmers initiate this transition by sponsoring local workshops on soil health developed by organizations like the Soil Health Academy.²³⁸ This series of workshops could be sponsored with the WSU Extension, Whatcom Conservation District, Sustainable Connections, and a local regenerative farm, Inspiration Farm.

²³⁶ <https://kisstheground.com/>

²³⁷ Expansion and Renewal of Conservation Reserve Program, <https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/index>

²³⁸ <https://soilhealthacademy.org/>

A common solution that occurs throughout this section on the Natural Environment is the need for a carbon credit program to compensate farmers, foresters, and other landowners for their efforts to increase carbon storage and sequestration. An example of a carbon credit program could be as simple as establishing a monetary value on carbon sequestration that would allow landowners to sell carbon credits to companies that want to offset their carbon emissions. This in turn incentivizes landowners to increase the carbon storage potential of their lands. Carbon markets offer an opportunity to improve soil health and bolster rural economies.

"If you can get something green on the ground year-round, you're feeding the microbes in the soil and it's a lot healthier. And if somebody wants to pay you to do that, it looks to me like you're foolish not to do it." Ohio farmer, Rick Clifton, grows cover crops year-round & is paid ~\$35,000 per year to store soil carbon by Indigo Agriculture.

Key priorities for carbon sequestration and water protection

- **Promote regenerative farming practices to increase soil carbon storage**
- **Support development of a local carbon credit program to compensate landowners for climate smart practices**

Strategy 2: Avoid conversion of agricultural lands and maintain farm production at a level that sustains a vibrant and climate-resilient agricultural economy

If predictions of up to three feet of sea level rise by 2100²³⁹ are accurate, Whatcom County faces the loss of up to 5,000 acres of farmland in coastal areas,²⁴⁰ particularly around Ferndale. Another concern, as sea level rises, is saltwater intrusion into groundwater and/or soil salinization in low-lying areas. Flood risk associated with storm surge will further exacerbate the problem. Increases in magnitude and frequency of riverine flooding may also impact the ability to farm floodplain acreage.

In addition to the direct impacts of climate change, population growth will continue to exert pressure to convert agricultural lands to other purposes as more and more people migrate to Whatcom County. Expensive agricultural land costs in Whatcom County discourage a new generation of farmers and often persuade older farmers to convert and sell all or portions of their land for development to fund their retirement. Loss of agricultural lands occurred over the last twenty years when the County allowed the proliferation of 5-acre *ranchette* developments. High agricultural land prices have also increased the potential transition of family farms into corporate farming.

Rapid residential development of former agricultural and forest lands threatens the viability of agriculture and continues to highlight the urgent need for greater protection of farmland at a time when climate change also threatens some forms of agriculture. The minimum of 100,000 acres of agricultural land as resolved by the County Council in 2009 must be permanently protected and available for agriculture. Whatcom County currently has slightly more than 87,000 acres zoned as agricultural, plus over 28,000 acres of rural-zoned (R5 and R10) lands that contain many working farms on prime agricultural soils that are much more vulnerable to conversion to non-agricultural uses than lands explicitly zoned for agriculture.

²³⁹ [According to IPCC](#), depending on the amount of global temperature change, sea level is projected to rise from 26 to 98mm (10 to 38 inches).

²⁴⁰ Interview with Chris Elder, Sr. Planner: Watersheds, Whatcom County, 23 May 2019.

The Rural Land Study report was developed by the Agricultural Advisory Committee in 2007 to identify and map areas within the Rural 5 and 10 Zones that are of agricultural significance and may require additional protection to ensure long-term agricultural viability. The Study helped inform Council's resolution to protect 100,000 acres of agricultural land and development of Agricultural Programs based out of Planning and Development Services and described in the 2011 and 2018 Agricultural Strategic Plans. Progress has been made with the Conservation Easement Program (CEP)²⁴¹ and other agricultural programs, but significant and rapid loss of farmland continues each year primarily to development. A 2019 update to the Rural Land Study tracks the changes in agricultural land and land uses in both Agriculture Zone and Rural Study Areas and provides updated maps of the identified 28,449 acres of Rural Study areas recommended for additional protections.

The Agriculture Advisory Committee recommends that these identified Rural Study Areas receive additional protection, from development and fragmentation, through 1) reducing development in R5 and R10 rural-zoned areas, 2) reducing conversion and fragmentation of farmland, 3) preserving agricultural neighborhoods, and 4) protecting open space from fragmentation.

The CEP and the Open Space Farm and Agriculture Current Use Assessment²⁴² program can be used to protect prime agricultural areas. However, many farmers consider the compensation provided by the CEP program to be inadequate, as the appraised value of development rights cannot compete with what the open market will pay. To be effective, the CEP program will need to be funded at a higher level, both to enable more land to be protected and to increase program payments by incorporating other attributes in assessing the land value, such as water rights and carbon storage. Increasing the rate of the Conservation Futures Fund levy to the rate authorized by Ordinance 92-002 would go a long way toward enhancing the CEP's effectiveness and scope.

The updated 2019 Washington State Farmland Preservation Indicators Report²⁴³ documents efforts to preserve agricultural land. Conservation Futures²⁴⁴ is a county tax levy program provided for in RCW 84.34.230 that protects, preserves, maintains, improves, restores, and limits the future use of threatened areas of open space, timberlands, wetlands, habitat areas, culturally significant sites, and agricultural farmlands. The funds for Conservation Futures are acquired through a property levy and are used to purchase rights or interests in real property for counties to preserve lands of public interest for future generations. In 2020, Whatcom County collected \$1,148,380 from this fund to support the CEP program.²⁴⁵

Because of the high cost of farmland, it is very difficult for new farmers to acquire the land needed to get started. Incentives to sell to farmers rather than developers or others, and subsidization of new farm purchases through low-interest loans would contribute to preserving agricultural land.

While the CEP can acquire agricultural conservation easements to protect specific acreages, Whatcom County must take more significant action to protect the minimum 100,000 acres needed to maintain the agriculture industry. We recommend a rezone of the identified Rural Study Areas from R5 or R10 zoning

²⁴¹ <https://www.whatcomcounty.us/573/Purchase-of-Development-Rights-Oversight>

²⁴² <https://www.whatcomcounty.us/1160/Open-Space-Program>

²⁴³ [2019 Washington State Farmland Preservation Indicators Report \(PDF\)](#)

²⁴⁴ <https://app.leg.wa.gov/rcw/default.aspx?cite=84.34.240>

²⁴⁵ https://uploads-ssl.webflow.com/5faf8a950cdaa224e61edad9/6070c2b0676da848f07246c0_2020%20QFP%20Conservation%20Futures%20Report.pdf

to either current Agricultural Zoning with a minimum parcel size of 40 acres or develop an intermediate Agriculture Zone with a minimum parcel size of 20 acres with one development right per minimum parcel unit. Council could accompany the rezone with compensation to property owners who end up with reduced development rights. This compensatory rezone could provide an intermediate option to achieve the County's broader goal of preserving 100,000 acres while addressing property owners concerns of any immediate loss in perceived or actual value attached to their properties. Match funding and cost share opportunities exist that could likely maximize local dollars to achieve this priority objective.

Key priorities for land conversion

- ***Expand Conservation Easement Program by increasing funding for staff, for acquisitions, and for programmatic enhancements.***
- ***Re-zone rural study areas to preserve 100,000 agricultural acres.***

Strategy 3. Enlist the agricultural community in preserving and enhancing water storage and stream-flow levels that enable salmon migration, healthy ecosystems, and agricultural irrigation

For agriculture, we need to address both inadequate summer water supplies and competition among different water users. Since independent negotiated settlements have often failed in the past, the joint processes of collaborative solutions and an adjudication of water rights provides a significant opportunity to resolve the issue of water equity and water access among the various users. Clarification of water rights must also recognize the future challenges brought about by climate change.

Several specific reforms to the current state water law could address summertime shortages and maldistribution, making local agriculture more resilient to increasingly severe shortages in the future. For example, the current "use it or lose it" relinquishment provision²⁴⁶ discourages water conservation, water sharing, and water trading approaches. The County should explore and pilot water trading mechanisms including leasing, sales, banking and trading and innovative approaches to metering water.

None of these reforms would eliminate competition over water. However, greater flexibility in water allocation could improve the ability of competing interests to negotiate creatively and reach mutually acceptable solutions. Because it is inevitable that conflicts will arise, such conflicts must be addressed by a process that includes fair representation of all stakeholders, governments, and watershed partners.

Restoring salmon habitat also restores the health of our watershed. The watersheds provide clean drinking water, flood protection, waste assimilation, aesthetic and recreational benefits and other ecosystem services. As these services are lost, benefits are reduced and costs to residents increase. As the watershed is restored to health, our quality of life rises and the costs of watershed degradation decline. Sufficient funding mechanisms for salmon habitat would support both operating capacity and capital projects, as well as provide matching funds for grants to leverage the work. Money spent in the watershed provides jobs and economic development.²⁴⁷

²⁴⁶ See WSU, Landowner's Guide to Washington Water Rights, page 7:

https://s3.wp.wsu.edu/uploads/sites/2073/2014/09/landownerguide_waterrights.pdf

²⁴⁷ <https://www.govlink.org/watersheds/9/committees/archive/1005/WRIA9-FundingMechanism-PolicyBrief2-FundingNeed.pdf>

Salmon-Safe²⁴⁸ offers a peer-reviewed certification and accreditation program to implement farming practices that protect water quality, maintain watershed health, and restore habitat. As a leading U.S. ecolabel, Salmon-Safe offers peer-reviewed certification, linking site development and land management practices with the protection of agricultural and urban watersheds. Their mission is to transform land management practices so Pacific salmon can thrive in West Coast watersheds. Currently, 95,000 acres of farm and urban lands in Oregon, Washington, British Columbia and California are certified through their program.

The Water Resource Inventory Area 1, or Greater Nooksack River Basin, Salmon Recovery Program²⁴⁹ and Nooksack Salmon Enhancement Association do a tremendous job in educating the community and restoring healthy rivers and marine shorelines. The County should support and continue to collaborate with non-profit organizations and salmon recovery partners to actively engage with local landowners, businesses, and the larger community. Recent efforts to restore anadromous fish passage with culvert removals and diversion dam removal on the Middle Fork Nooksack and efforts by the Floodplain Integrated Planning (FLIP)²⁵⁰ are working to integrate actions with multiple stakeholders that address flooding, salmon needs, and land use.

Where feasible, the agricultural community should implement natural solutions, such as protection of riparian areas and wetlands to increase water storage, and employ drainage management, such as adjustable weirs, to increase storage early in the growing season and promote subirrigation of crops. Advanced wastewater treatment and manure treatment approaches can also be employed to allow water reuse. Finally, employing modern irrigation and efficiency technologies can greatly increase conservation of freshwater resources.

Key priorities for ensuring adequate water for agriculture and fish habitat

- ***Use collaborative demonstration projects to collect the information needed to seek greater flexibility in our current water law.***
- ***Implement irrigation modernization and efficiency technologies to reduce water use.***

Strategy 4: Reduce Agriculture-Related Emissions and Increase Renewable Energy, while Providing Farmers with New Income and Cost-Share Opportunities

Agriculture is responsible for about 6% of the County's GHG emissions - from machinery, transportation, agricultural chemical manufacturing, and energy use, along with methane emissions from animal agriculture.²⁵¹ There are measures that can reduce agriculture's emissions and environmental effects while also maintaining "critical mass" and enhancing farmers' income.

Nutrient (i.e., manure) treatment systems can reduce agricultural greenhouse gas emissions as well as alleviate the problems of poor distribution of water. Manure gives off methane, a potent greenhouse gas. Anaerobic digesters draw off the methane, which can be burned on site to produce electric power and release carbon dioxide, a much less potent greenhouse gas. Liquid residues still contain bioactive nitrogen and can be used as fertilizer, and solid residues can be used as bedding for cows, for mulch, or

²⁴⁸ <https://salmonsafe.org/about/>

²⁴⁹ <https://salmonwria1.org/>

²⁵⁰ <https://whatcomcounty.us/2971/FLIP-Reports>

²⁵¹ US Environmental Protection Agency, [Sources of Greenhouse Gas Emissions](#), 2018; IPCC, "Climate Change and Land," 2019, p. 9.

other uses. Other agricultural residues such as food processing waste can also be used in the digester, increasing its power output and making the investment more attractive to the dairy farmer.²⁵² Digesters can also lessen the problem of manure storage in the wintertime, which can contaminate waterways.

At present, however, anaerobic digesters are affordable only with cost-share for construction or subsidized prices for the electricity generated, because electricity prices are low in the Pacific Northwest with its large amounts of hydropower. Although farmers who installed digesters between 2010 and 2012 sell electricity at contract prices high enough to pay back construction costs, currently new or renewed contracts offer prices so low that digesters are no longer economical for farmers. Hence there have been only five digesters built in the county, four of them now operating.

Rather than burning digester methane on site, it can be sold to natural gas suppliers and help make the digester technology affordable. These systems are in place in Oregon, California, and British Columbia, and could be tried here if the price structure were attractive to farmers. Methane from digesters is considered renewable methane similar to the methane derived from landfills. The new CETA law that will increase the amount of renewable energy used to generate electricity by utilities may very well increase the contract price of renewable methane. As discussed in [Electricity and Buildings](#), many utilities like PSE are purchasing renewable methane from large landfills to offset their current use of fossil fuels.

Other nutrient management technologies can potentially address both climate change and other environmental issues: one of these is an innovative, three-stage processing system recently installed at Coldstream Farms near Acme (Fig. 3.14). The end product is clean water that can be returned to a stream. Such systems, however, are expensive to operate, suggesting that the County should incentivize installation and support research into lower-cost operation.

Petrochemical fertilizers and pesticides use fossil carbon both as feedstock and as fuel, so reducing their use can lower carbon emissions of agricultural operations and increase farm incomes. In addition, farmers have long known that petrochemical fertilizers can harm soil quality, so reduced use of chemicals can contribute to the improvement of soil quality as discussed in strategy 1. Promoting use of naturally derived and locally sourced nutrients and fertilizers can result in a reduction in associated GHG emissions. Reductions in pesticide use also provide



Figure 3.14: Coldstream Dairy Farm has installed a three-stage processing system to manage dairy manure and produce water clean enough to be returned to nearby streams.

a reduction in greenhouse gas emissions that occur during their manufacturing and incorporating an emissions reduction objective into Integrated Pest Management can support effective implementation.

Farms also have land and roof tops that can be used for wind and/or solar power. When paired with battery storage, farms can meet their own electricity needs when averaged over a year and may be able to sell excess renewable electricity as they do with power generated by burning methane from digestion. Starting in the late 1800's, farmers used windmills to pump water or grind grain. This practice largely ended with the Rural Electrification Act of 1936. Throughout the County farmers could enhance their income by leasing land for wind energy systems. Ninety-five percent of the land around wind turbines can continue to be farmed. The added income farmers receive from developers or utility companies can offset periods of low commodity prices, tariffs, or crop damage from droughts, floods, and pests.

Key priorities for emissions reduction

- *Reduce emissions associated with fertilizer by incentivizing manure management systems*
- *Support renewable energy projects in agriculture to reduce emissions and generate additional farm income*

Strategy 5. Strengthen Agricultural Diversity to Expand Local Markets and Increase Farm Incomes

Increasing local market opportunities not only reduces transportation emissions but also provides an additional way to increase farm incomes. Our focus on a few monoculture crops increases Whatcom County agriculture's vulnerability to climate change and other environmental disturbances, but also to changes in markets. Almost all the food we produce goes to distant markets, and almost all the food we consume is produced elsewhere. This makes us dependent on markets as well as increasing fuel consumption. Reducing this dependence by developing a more diversified local food system would improve climate resilience and support local markets and new income streams for farmers.

Most local dairy farmers receive a nationally set price for their milk, which in recent years has been low enough to cause them significant hardship, or even induce them to sell out. Independent producer-handlers who sell specialty products locally, often at premium prices, should be encouraged, perhaps through tax breaks or assistance with marketing. Sustainable Connections²⁵³ has a strong collective marketing campaign that supports local food and the businesses that sell it.

Connections between local food producers and consumers, particularly through direct sales, already happen at farmers markets and dockside fish sales, but most large grocery stores sell very few local foods. In specialty markets, consumers will pay more for organic products, and local markets might accommodate most, or all of the *organic* berries grown in the county. Expanding the farm-to-school program²⁵⁴ in which local schools buy directly from farmers provides children with more healthy alternatives.

Promoting local food systems would facilitate the entry of small-scale farmers. The prosperity of farming depends in part on a trained workforce and access to land. Farm internship programs are gaining

²⁵³ <https://eatlocalfirst.org/elf-for-biz/>

²⁵⁴ <https://www.whatcomfarmtoschool.org/>

popularity.²⁵⁵ As our farming workforce ages, the County should consider programs that provide access to small amounts of land for intensive, diversified vegetable, fruit, grain, and livestock farming. Additionally, farm transition planning is available for families who want to keep their farmland in production or in the family from generation to generation.²⁵⁶ Washington FarmLink,²⁵⁷ a program of Tilth Alliance, and Washington Farmland Trust's Farm to Farmer Program connects aspiring and experienced farmers to landowners and land ownership opportunities, ensuring that land remains in agricultural production. Sustainable Connections has its Food and Farming Program²⁵⁸ which advocates for and strengthens our local food economy and runs a farmer education and incubator programs. Viva Farms, headquartered in Skagit County, also offers education and incubator services for small farms. Cloud Mountain Farm Center²⁵⁹ is a local nonprofit working farm committed to agricultural education. In addition, worker-owned cooperatives are a model of farm ownership and operation that we should explore.

The County should adopt a funding mechanism that supports the Whatcom Conservation District's efforts to ensure a sustainable agricultural economy. Currently the Conservation District receives nearly 100% of its funding from grants and contracts. Historically, funding has come from the State legislature through the State Conservation Commission, but this has been declining. Our local Conservation District could do much more to increase soil carbon storage and help local farmers adapt to climate change if they had a guaranteed base of support. [RCW 89.08.405](#) authorizes the County to approve revenues for the Conservation District to support Council priorities, such as those outlined in this CAP. The County Council can approve by resolution an additional annual property rate that may not exceed 10 cents per acre with the maximum annual per parcel rate not exceeding \$5.²⁶⁰

Key priority for expanding local markets:

- ***Diversify our local agricultural crops to increase climate resilience in our food system, enable local markets for farm products, and increase farm incomes.***

Strategy 6: Encourage Increases in Research and Development of Drought- and Heat-Resistant Agricultural Crops at the state and federal level and Flexible Infrastructure to Support these Crops

The small number of crops currently grown in Whatcom County²⁶¹ renders our agricultural economy especially vulnerable to major changes in temperature and precipitation. Providing that water is available, warmer temperatures may facilitate growing new crops, but they may also challenge the viability of currently planted varieties. With decreasing water availability, however, it may be necessary to look for varieties that are more drought-tolerant or heat-tolerant, or even to switch to different crops. In addition, our major crops require specialized infrastructure to produce and process, making it more difficult for farmers to switch crops if this becomes necessary.

²⁵⁵ https://uploads-ssl.webflow.com/5ec2d4f7da309c68cdc0655a/5f3ffbb650595cedb5952a67_FINAL-Indicator-Fact-Sheet-EO.pdf

²⁵⁶ <https://www.scc.wa.gov/ofp/transition-planning>

²⁵⁷ <http://wafarmlink.org/>

²⁵⁸ <https://sustainableconnections.org/programs/food-farming/>

²⁵⁹ <https://www.cloudmountainfarmcenter.org/education/>

²⁶⁰ <https://app.leg.wa.gov/rcw/default.aspx?cite=89.08.405>

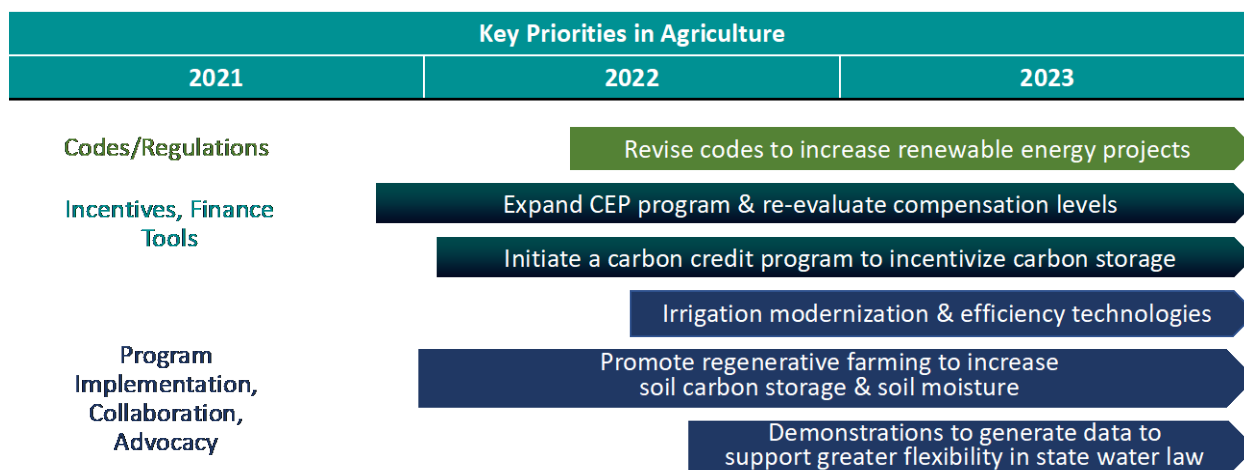
²⁶¹ See 2017 Census of Agriculture https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/2/table/1/state/WA/county/057

Currently, adequate infrastructure exists for berries, seed potatoes, and dairy products, but not for other potential crops. If agronomic and market research indicate that other crops would do well here, especially under anticipated future climate conditions, the County should consider facilitating infrastructure construction and equipment purchase, through loan guarantees, assisting farmers and businesses in obtaining grants and cost-share funding, and develop other ways to make purchase of necessary infrastructure more affordable for farmers. Food processors headquartered in British Columbia and Eastern Washington have recently shown interest in establishing operations here, which is something the County should encourage.

Key priority for local food system

- **Prioritize development of flexible food processing facilities**

Timeline and Summary of Strategies, Actions, Benefits



Strategy, Action, Benefit Table for Agriculture

1. Adopt farm management practices that maximize soil carbon storage and increase water and nutrient availability		
Actions		Benefits of (Actions)
1.1	Promote no-till and reduced-till agricultural practices to increase soil carbon storage, nutrients, and water-holding capacity of soils.	<ul style="list-style-type: none"> Increased carbon storage (all actions) More efficient water use & conservation (1.3, 1.4) Reduce runoff & erosion (1.1, 1.2) Lower temperature of microclimate above land and water bodies. (1.1, 1.3, 1.4, 1.5) Additional farm income for increasing carbon storage. (1.6)
1.2	Support County-sponsored local workshops on regenerative agriculture similar to those taught by the Soil Health Academy.	
1.3	Work with local agricultural organizations to develop a regenerative agriculture program that supports landowners to participate and monitors results.	
1.4	Increase incentives for the maintenance or restoration of areas within agricultural zoned property, such as wetlands and ponds, that function as carbon sinks, promote water storage, and provide other ecosystem services.	
1.5	Promote agroforestry practices to protect soil, animals, and crops from extreme weather events, improve water quality, sequester carbon, and promote long-term agricultural production.	
1.6	Develop & implement a carbon credit program to pay farmers to sequester carbon.	
1.7	Initiate demonstration projects to educate our communities on the benefits of regenerative agriculture and carbon sequestration.	

2. Avoid conversion of agricultural lands and maintain farm production at a level that sustains a vibrant and climate-resilient agricultural economy.		
Actions		Benefits of (Actions)
2.1	Strengthen codes to discourage the conversion of agricultural lands for residential, commercial, and industrial development.	<ul style="list-style-type: none"> Maintain a critical mass of agricultural land (all actions) Discourage sprawl, preserve farmland, encourage small & diverse farms & a new generation of farmers (2.1-2.4) Allow people to begin farming without large amounts of capital (2.5)
2.2	Significantly increase purchase of agricultural conservation easements in Agricultural and Rural Zones through an expanded CEP Program.	
2.3	Re-zone Rural Study Areas to agricultural and lower density zoning such as Ag 20 or Ag 40.	
2.4	Work with farmers to develop approaches to incentivize retiring farmers to sell land to new farmers.	
2.5	Subsidize new farmers' land purchase through low-interest loans and other supportive mechanisms.	

3. Enlist the agricultural community in preserving and enhancing water storage and stream-flow levels that enable salmon migration, healthy ecosystems, and agricultural irrigation.	
Actions	Benefits of (Actions)
<p>3.1 Develop and seek funding for demonstration projects on water conservation and augmentation to develop a basis for changing or eliminating the state water law on relinquishment.</p> <p>3.2 Allow water spreading, leasing, and transfer through establishment of a water bank, in coordination with Natural Resource Market development.</p> <p>3.3 Encourage farmers to manage adjustable weirs in drainage ditches to maintain higher water levels in the unsaturated zone.</p> <p>3.4 Support local organizations that improve floodplain connectivity and restore riparian zones and wetlands.</p> <p>3.5 Implement irrigation modernization and efficiency technologies.</p>	<ul style="list-style-type: none"> • Prevent escalating water conflicts, encourages cooperation and more efficient water use (all) • Reduce the threat of flooding and/or reduce runoff (3.4) • Maintain cooler water temperatures for fish (3.1, 3.5) • Improve water use efficiency & conservation (all actions) • Encourage development of water-trading and reduce opposition to water metering (all)
4. Reduce agriculture-related emissions and increase renewable energy, while providing farmers with new income and cost-share opportunities.	
<p>4.1 Work with agricultural groups to explore economic incentives that may encourage farmers to reduce emissions and chemical fertilizer use, enable installation of nutrient treatment systems.</p> <p>4.2 Incentivize and invest in modern manure management such as Anaerobic digesters, Farm to Fresh Water Systems, or other technologies/systems.</p> <p>4.3 Incentivize and support development of renewable energy projects such as wind and solar that complement farm operations.</p> <p>4.4 Encourage reduced use of petrochemical fertilizers & pesticides.</p>	<ul style="list-style-type: none"> • Make nutrient treatment & low-carbon farming economically attractive (4.1) • Reduce methane emissions and pollution. Mitigate public opposition to animal agriculture (4.2) • Green power plus income source (4.3) • Reduced GHG emissions & improve soil quality (4.4)
5. Strengthen agricultural diversity to expand local markets and increase farm incomes.	
Actions	Benefits of (Actions)
<p>5.1 Prioritize purchase, sale, and distribution of local agriculture and fisheries products to local facilities, groceries, and schools.</p> <p>5.2 Expand the farm-to-school food program.</p>	<ul style="list-style-type: none"> • Provide markets for locally produced food & transportation emissions (5.1) • Improve school children's diets (5.2) • Increase farm incomes. (all)

6. Encourage increases in research and development of drought- and heat-resistant agricultural crops at the state and federal level and flexible infrastructure to support these crops.	
Actions	Benefits of (Actions)
6.1 Develop crop varieties that will use less water and thrive in warmer conditions. 6.2 Introduce new crops adapted to a changing climate. 6.3 Anticipate invasive pests and develop resistant varieties or other biological control methods. 6.4 Research and prepare for animal diseases that are likely to occur here under future climate scenarios. 6.5 Prioritize development of flexible food processing and local distribution facilities.	<ul style="list-style-type: none"> • Decrease demands for water & increased crop resilience to warming temperatures. (6.1) • Increase climate resilience (all) • Reduce dependence on chemicals (6.3) & decrease disease outbreaks (6.4) • Diversified markets reduce dependency on single crops & provide jobs in food processing (6.2, 6.5)

Conclusion

Farming and forestry practices can support the County’s efforts in removing greenhouse gases from the atmosphere. Agricultural soils are potentially a large carbon sink and through management of soil health, can be a large part of the climate solution. Climate adaptation strategies in this sector are significant for improving food security and agricultural resilience as well, because many of them contribute to a more robust and inclusive food system, better able to withstand climate impacts.²⁶²

To achieve the ambitious but imperative goals outlined here, we must promote continued collaboration among federal, tribal, state, and local government agencies, conservation and water districts, universities and research organizations, representatives of the farming industry, farm worker social justice organizations, and most importantly, farmers. This will require leadership from the County Council and agencies of the county government, which need to be proactive in promoting innovative, resilient, and adaptive agriculture.

²⁶² <https://drawdown.org/sectors/food-agriculture-land-use>

Forestry

Forested land accounts for the majority of the natural land cover encompassing over 60% of the county. If managed well, these forests can substantially contribute to carbon mitigation and climate adaptation. Climate disruption is the most important threat to the survival of forests and their viability as a carbon sink. Increasing temperatures, prolonged drought, and extreme weather events – all associated with our changing climate - are leading to larger and more destructive wildfires, flooding, landslides, and pest outbreaks. Forests also play an important role in climate resilience contributing to biodiversity, natural water filtration and storage, and removal of pollutants from the air. It is clear that climate change poses not only a threat to forest resources and their environmental benefits, but also to human habitation.

Forest lands contribute to Whatcom's economy, supporting our forest products industry, as well as providing extensive educational and recreational opportunities and the jobs that support these sectors. Climate disruption is complicating the future viability of these important economic sectors. Higher overall temperatures and lower soil moisture impacts tree survival during summer months and have already caused a decline in western red cedar and western hemlock.²⁶³ Tree survivability can especially be a problem when reforesting steep south- and west-facing slopes that tend to be hotter and drier.

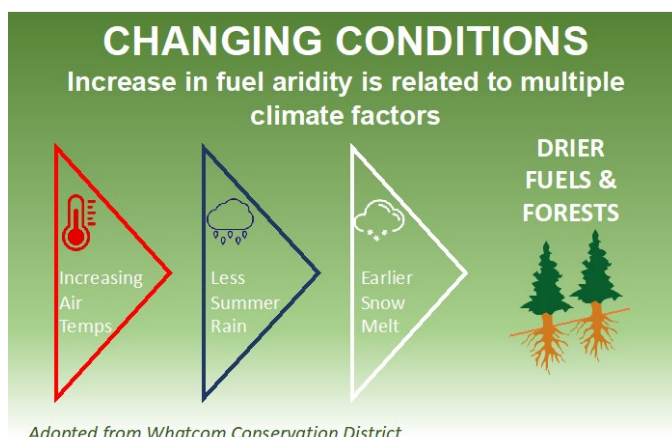


Figure 3.15: Drier fuels and forests from changing climate conditions


Further, increased year-round temperatures allow for many invasive species to survive and damage the forest ecosystem. With warmer winters, invasive species whose population numbers and range were previously limited by extended cold temperatures are now able to survive and spread. A notable example of this is the western pine beetle, whose populations in the past were severely reduced each winter is now able to survive mild winter temperatures and cause more extensive damage in Northwest forests. Invasive species, both floral and faunal, may damage the local ecosystem by killing or outcompeting native tree species. In addition, some common invasive species such as Scotch broom and Himalayan blackberry are highly flammable and increase the risk of wildfire spread.

Climate change is already impacting Whatcom's forests and woodland ecosystems based on a recent climate vulnerability assessment (Table 3.1). Climate-related stressors of warming temperatures, decreases in summer precipitation, and snowmelt occurring earlier in the year has produced drier fuels and a longer fire season in the Pacific Northwest. Species like Douglas-fir may shift to higher elevations to adapt to these increasing temperatures and changes in hydrology. The U.S. Forest Service has

²⁶³ Hot, dry weather killing Washington trees, <https://www.king5.com/article/tech/science/environment/hot-dry-weather-killing-washington-trees/281-586640386>. Numerous news organizations have reported on this topic over the last few years.

developed management actions in response to the high risk imposed by climate change;²⁶⁴ however, commercial forest operations have been slow to change their reforestation practices.²⁶⁵

Table 3.1. The High Climate Vulnerability of Forests and Woodland Ecosystems.

 Forest & Woodland Ecosystems High Vulnerability		
Exposure	High	Forests and woodland ecosystems encompass nearly 60% of Whatcom County. Over 70% of the County's forested area is managed federally (e.g., national parks, forests, and recreational areas).
Sensitivity	High	Significant risk of wildfire and pest damage that would harm the forest ecosystem and negatively affect timber and recreation industries. Many species cannot tolerate rapid change.
Adaptive Capacity	Medium	Given that the U.S. Forest Service has conducted a comprehensive vulnerability assessment for national forests in the Pacific Northwest and developed management actions in response, adaptive capacity is high, helping offset vulnerability due to exposure and sensitivity to changes in climate.

Forests in Whatcom County exist within a variety of jurisdictions and ownerships. Roughly two thirds of Whatcom County forests are located on federal lands including North Cascades National Park and Mount Baker-Snoqualmie National Forest. Non-Federal forestland within Whatcom County is managed or owned by the Washington Department of Natural Resources (DNR), large timber companies, and small acreage landowners. The Lummi Nation and Nooksack Indian Tribe manage their forests under the auspices of the Bureau of Indian Affairs.

Goal and Strategies for Forestry

The goal and strategies identified below support the overarching natural resource goal of mitigating emissions, while promoting adaptation and improving forest ecosystem resilience to climate change. These strategies encompass changes that could be made to current forestry practices and additional practices that could improve the sustainability of Whatcom County's forest resources in the future. Many strategies in forestry are also applicable or relevant to other topics in natural resources, particularly land use, water resources and ecosystems.

Goal: Ensure a long-term equitable and resilient forest resource in the county by acknowledging, educating, and preserving the benefits from current forest resources, addressing the impacts of climate change on forest health, and adapting forest management practices to this new reality.

²⁶⁴ Raymond, Crystal L., David L. Peterson, and Regina M. Rochefort (Eds), Climate Change Vulnerability and Adaptation in the North Cascades Region, Washington U.S. Department of Agriculture, Forest Service General Technical Report, PNW-GTR-892, Sept 2014.

²⁶⁵ Murphy, Ellyn. Chapter 7 Forestry, Community Research Project, 2019. <https://whatcomcounty.us/3162/Meetings-Additional-Information>.

Forestry Strategies

1. Protect and enhance carbon storage and sequestration in forest ecosystems
2. Increase forest health, survival and climate resilience through forest management practices that reduce wildfire risk, increase soil moisture, and stream flows, and preserve wildlife habitat
3. Promote climate resilient planning and programs to maintain our forest economy for wood products, watershed health, and recreation through leadership, education, and successful programs.

Strategy 1: Protect and Enhance Carbon Storage and Sequestration in Forest Ecosystems.

Whatcom County was part of a pilot study for the Local Governments for Sustainability to develop and test a protocol for estimating the amount of carbon that is removed from the atmosphere through photosynthesis and stored by forests. This protocol is now part of the ClearPath model for GHG assessments. Using data from early 2000 – 2010, the study established a baseline that indicated Whatcom forests are removing, or sequestering, about four million metric tons of CO₂e every year, or about half of Whatcom's total emissions in 2017. In addition, Whatcom forests store the equivalent of about 400 million tons of carbon dioxide in total. The county cannot afford to lose this important carbon mitigation resource to wildfires, drought, disease, or conversion of forestlands to other uses. Although this forest protocol was not evaluated for the 2017 GHG assessment, it should be required and included in future county-wide GHG assessments.

The trend in forest carbon storage and sequestration over time might indicate conversions in land use, disturbances such as logging and wildfires, and/or a change in forest health. This new ClearPath protocol for forests is a step forward, providing information on the value of our forests; however, it is also important to understand the value of the carbon storage potential for different forest and non-forest ecosystems. For example, wetlands that exist within and outside forests are known to store large quantities of carbon. Carbon storage can vary with soil and vegetation type, so identifying and protecting those lands with a high potential for carbon storage should be a priority.

Another approach that should be implemented is development of a local carbon credit program or carbon market and implementing carbon credit projects to increase carbon storage and offset GHG emissions. A carbon market establishes a monetary value on carbon storage and sequestration rates that would allow landowners to generate carbon credits, defined as the additional carbon stored above the minimum management practices required by the Washington State Forest Practices, and sell those credits to companies or entities that want to offset their emissions or invest in sequestration.

For example, under the Climate Commitment Act (CCA), carbon offsets can be used for compliance by industries that release GHGs up to limits specified in the legislation. This new source of revenue would incentivize landowners to increase the carbon storage potential through forest management practices like thinning to increase growth rates, extending the rotation age of a forest stand before harvesting, or preserving forested ecosystems that provide key watershed or climate resilience functions. In short,

carbon markets offer an opportunity to protect county forests from conversion to other uses, encourage more climate resilient forest practices and bolster rural economies and communities.²⁶⁶

The 2021 Climate Commitment Act calls for the establishment of a small forestland owner workgroup to identify carbon market opportunities, including carbon offsets that can be used in Washington. A portion of the proceeds from emissions allowance auctions can be used to conserve working forestlands and increase their carbon storage.

Whatcom County consists of 186,243 acres of Commercial Forestry zoned lands that hold no development potential and 35,638 acres of Rural Forestry zoned lands that has a minimum parcel size of 20 acres or one development right per 20 acres. Currently there are an estimated 1190 unused development rights on private forestlands in the Rural Forestry zone. Realization and development of these development rights would have a significant detrimental impact on the amount of acreage available for ongoing forest management, increase risk to public safety and private property from wildfire risk, and reduce the area available for carbon storage and sequestration. In order to preserve the working forestland values of the Rural Forestry zone, it recommended that the CEP focus additional energy and leverage significant additional funds to purchase forestry conservation easements to reduce the number residential development rights and to amend the Rural Forestry zoning code to consider revising the required minimum parcel size to one development right per 40 acres, adopt wildland urban interface development code, and encourage participation in the FireWise program.

Key Priorities for Carbon Sequestration and Storage:

- *Identify and preserve the most important forest resource lands based on carbon storage and sequestration potential through i) expanded purchase of forestry conservation easements through the Conservation Easement Program to rapidly retire development rights where pressure of conversion is greatest, and ii) review and revise Rural Forestry land use code to reduce development potential, reduce wildfire risk, and build climate resilience.*
- *Establish values and trends in forest carbon sequestration and storage over time using the ClearPath GHG assessment protocol.*
- *Fund a study to evaluate the potential of setting up a carbon market in the county to encourage and reward forest landowners for enhancing carbon storage and sequestration.*

Strategy 2: Increase Forest Health, Survival and Climate Resilience Through Forest Management Practices that Reduce Wildfire Risk, Increase Soil Moisture and Stream Flows, and Preserve Wildlife Habitat.

Healthy forests are stable, sustainable, and resilient to stress, but most importantly, vital to our future.²⁶⁷ Forests provide large quantities of clean water, prevent soil erosion, and provide habitat for a diversity of plants and animals. Defining forest health however is difficult since it is so dependent on location. An ecologist may define the health of forests as those ecosystems that are able to maintain

²⁶⁶ Whatcom Forests Provide Resilience Amidst Changing Climate, by Ellyn Murphy and Chris Elder. Whatcom Watch, March 2020. <https://whatcomwatch.org/?s=Whatcom+Forests>

²⁶⁷ Forest Health Monitoring: National Status, Trends, and Analysis 2020, draft report by Kevin Potter and Barbara Conkling. USDA US Forest Service Forest Health Monitoring Program. https://www.fs.fed.us/foresthealth/publications/FHM_2020_SRS_draft_national_technical_report.pdf.

their organization such as species diversity and autonomy over time.²⁶⁸ A utilitarian may define forest health as to the average diameter and height of the trees based on age and species. The US Forest Service's program on Forest Health Monitoring uses a combination of both definitions.

There are 212 permanent forest inventory plots in Whatcom County for monitoring forest health, but only about half of these sample plots have been measured twice since 2002.²⁶⁹ The county should partner with the various conservation organizations and natural resource management organizations to provide more frequent evaluation of sample plots as they relate to forest health. This could easily be accomplished by using summer interns. Wetland areas within forest tracts are especially important to wildlife, as well as the overall health of the ecosystem and have large carbon storage potential. Maintaining mature forest cover in these areas is critically important as well as increasing no harvest buffers along perennial and non-perennial streams and other important contributing headwater areas.

Reforestation and afforestation are challenging under a changing climate. The challenge is to plant a tree today that can withstand the higher temperatures, lower soil moisture, and more frequent wildfires over the next sixty-plus years. Several agencies such as the Washington DNR, Native American tribes and the USFS have initiated progressive programs to confront the risk of climate disruption. These programs are an excellent start but have not always resulted in actual changes in forest management practices, especially for commercial and rural forest landowners.

Wildland fires are a serious and growing hazard threatening life, property, while releasing large quantities of GHGs. Severe wildfires also reduce soil moisture retention by removing organic matter and in some cases volatilizing compounds that can form a water-repellent layer on the soil.²⁷⁰ Milder winter temperatures and more rainfall in the winter and early spring creates a buildup of ground vegetation. During summer droughts this vegetation dries out, becoming fuel for wildfires, and creating conditions more conducive to wildfire spread. Low intensity fires are now widely recognized as a natural process that reduces understory vegetation and facilitated reforestation; the County should promote the judicious use of prescribed burns and thinning to counteract the buildup of fuel and excessive density of trees on County-owned lands and other private lands.

With population growth in Whatcom County a significant number of homes and businesses have been built in wildland-urban interfaces (WUIs) – the area where structures and other human development meets or intermingles with undeveloped wildland or vegetative fuels – often increasing the risk of fires and the destruction of property. These interface areas are particularly vulnerable because seventy to ninety percent of wildfires are human caused. Some of these areas, such as Glacier, also lack road access options beyond one way in and out, further raising the risk to property and life.²⁷¹ The Washington DNR was instructed by the State Legislature in 2018 to map WUIs in each county to mitigate wildfire hazard. This new WUI map is now available for Whatcom County as a tool for understanding and assessing

²⁶⁸ Toward an operational definition of ecosystem health. In: Costanza, R.; Norton, B.G.; Haskell, B.D., eds. Ecosystem health: new goals for environmental management. Washington, DC: Island Press: 239–256.

²⁶⁹ Community Research Project, Chapter 7 by Elyn Murphy, 2019. <https://whatcomcounty.us/3162/Meetings-Additional-Information>.

²⁷⁰ The Effect of Fire on Soil Properties by Leonard DeBano. Rocky Mountain Research Institute. https://forest.moscowfsl.wsu.edu/smp/solo/documents/GTRs/INT_280/DeBano_INT-280.php.

²⁷¹ Dye, A.W., J.B. Kim, A. McEvoy, F. Fang and K.L. Riley. 2021. [Evaluating rural Pacific Northwest towns for wildfire evacuation vulnerability](https://usfs.maps.arcgis.com/apps/View/index.html?appid=8630fdb3e88f475fb5304415ce9e03c0&extent=-136.2333,39.1055,-102.4834,50.3252). Natural Hazards, 2021. USFS Wildfire evacuation risk for PNW communities: <https://usfs.maps.arcgis.com/apps/View/index.html?appid=8630fdb3e88f475fb5304415ce9e03c0&extent=-136.2333,39.1055,-102.4834,50.3252>.

wildfire risk. The intent in mapping these areas is to guide where to apply stricter building codes in the WUI to reduce private property damage and protect public safety.

Resilience in the county's next generation of forests from wildfires, drought and disease will require forest owners to consider different harvesting strategies, specifically timing, size, and shape of harvests to reduce the spread of wildfires, damage from insects and disease, flooding and increasing sediment load in creeks, landslides, and increase summer streamflows. Even thinning young forest stands can enhance survival, growth, and carbon sequestration by reducing competition for soil moisture and sunlight as well as provide an opportunity to remove invasive plants. Survival of forests may also depend on a more diversified portfolio of tree species, an increase in tree spacing where soil moisture is a problem, or even assisted migration-planting stock from seed zones that are adapted to drier conditions. "...a land manager may need to consider appropriate seed lots or seed sources within populations. There may be populations within a species that are more suited to expected climate conditions and acquiring seed sources from those populations may help the species perform well into the future." There are tools to help foresters make decisions about assisted migration including the Climate Change Tree Atlas, and ForeCASTS for species-level considerations and the Seedlot Selection Tool for seed lot and seed source considerations.²⁷²

Douglas fir is one of the most predominant trees in western Washington that responds well to different environments. Recent studies have shown that Douglas fir from areas with the coldest winters and driest summers had the greatest drought resistance, not seedlings from the warmest, driest climate.²⁷³ This makes sense because the physiological processes that help the tree tolerate dry winter winds and frozen soils also help the tree tolerate summer drought stress. Reforestation projects must consider future site conditions and should use tree stock from seed zones that can survive these conditions.

The Nooksack Salmon Enhancement Association (NSEA) recommended that forests should incorporate mixed landscape for greater diversity that allows shifts in species distribution.²⁷⁴ This can be accomplished by creating a mosaic of patch sizes and age classes for timber harvest and avoiding monocultures. Species diversity has created more resilience in northeast deciduous forests but is rarely considered in the northwest conifer forests where monocultures are the norm.

The county can demonstrate and educate forest landowners by partnering with organizations such as the Whatcom Million Trees Project²⁷⁵ to test climate-resilient practices in selected areas where a grassland may be converted to forest land. Large land disturbances may also present an opportunity to establish new genotypes and forest heterogeneity and diversity. Although Douglas fir is one of the most drought-tolerant commercial species in the Pacific Northwest, small rural landowners in the county and county parks might be more willing to experiment with a wider selection of conifer species.

Key Priorities to Enhance Forest Health and Survival:

- ***Increase monitoring of forest inventory plots and use information to revise forest management practices to reflect climate risk.***

²⁷² <https://www.fs.usda.gov/ccrc/topics/assisted-migration>.

²⁷³ Predicting Douglas-Fir's Response to a Warming Climate by Andrea Watts. Science Findings, Pacific Northwest Research Station, US Department of Agriculture Forest Service. Nov. 2015. <https://www.fs.fed.us/pnw/science/scifi179.pdf>.

²⁷⁴ Taylor, Lindsay and Henson, Kayla, Model Forest Policy Program, the Cumberland River Compact, and the Nooksack Salmon Enhancement Association "Forest and Water Climate Adaptation: A Plan for Whatcom County, WA," December 2010.

²⁷⁵ Whatcom Million Trees Program, www.whatcommilliontrees.org.

- *Implement demonstration projects that plant climate resilient species and climate resilient reforestation techniques.*

Strategy 3: Promote Climate Resilient Planning and Programs to Maintain our Forest Economy for Recreation and Wood Products Through Leadership and Education.

Whatcom County has a large financial stake in promoting a strong and vibrant forest industry as well as healthy forests on protected lands. According to the State Department of Commerce,²⁷⁶ forestry contributed 1,889 direct jobs and over 3,000 indirect or induced jobs²⁷⁷ in Whatcom County in 2017. These jobs translated into \$220 million in wages and \$5.8 million in taxes and fees.

The county can play an important leadership role by incorporating climate change risk into all aspects of the Comprehensive Plan. Forest zoning and new roads and developments all have an impact on forest health and survival under a changing climate. Many of the issues are complex and cross cutting such as the competing interests between the timber industry, watershed management, salmon recovery, recreation, and preservation of important ecosystem functions.

Support and partnerships with local organizations that educate the public about the important role of natural resource management in promoting climate resilience and producing food and fiber can sustain our local economy, environment, and wellbeing. The County can also use its purchasing power to buy locally sourced lumber for all county building projects and promote this concept to local builders. County efforts in economic development should encourage the research and development of new forest products such as cross-laminated timber that can reduce the carbon footprint of new buildings.

Given the significant loss of forestry and forest product infrastructure in Whatcom County and in the region over the last several decades, local forestry professionals recommend partnering with adjacent timber producing counties such as Skagit and Snohomish to collaborate on local forest products industry improvements. A tri-county forestry initiative could successfully develop and implement value added forest products such as cross laminated timber, a locally grown product marketing initiative, and other climate neutral or climate positive forest products.

The Wood Innovation Center²⁷⁸ located in Darrington is a good example of a partnership between the Town of Darrington, Forterra, and Snohomish County that has received strong state backing. This innovation center takes advantage of their deep roots in the timber industry and will include companies building or manufacturing mass timber, cross laminated timber, and modular housing. In July 2020, Darrington received a \$2 million award from the state community economic revitalization board to support site acquisition and infrastructure. The Wood Innovation Center is scheduled to open in 2023. Whatcom County should consider partnering with this new innovation center.

²⁷⁶ Washington State Department of Commerce, <http://data.workingforests.org/#Whatcom>.

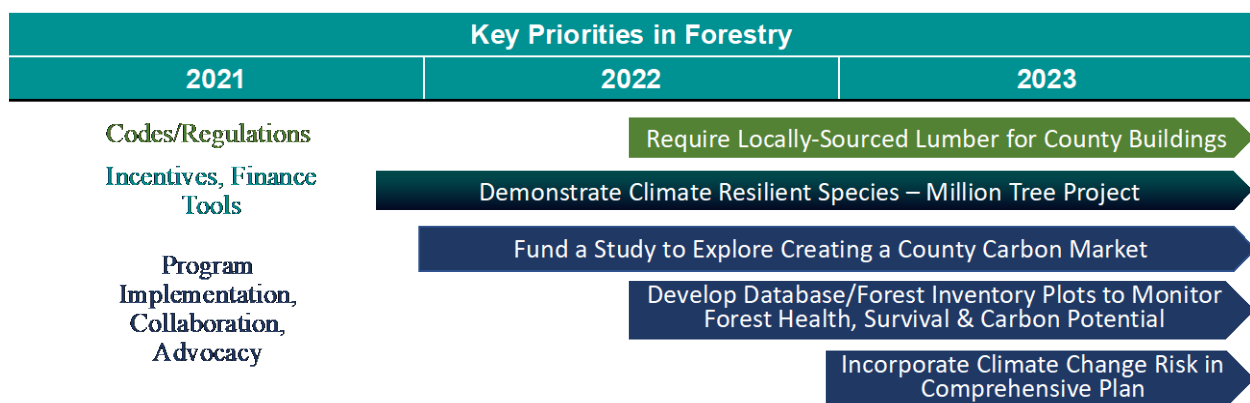
²⁷⁷ Economists define indirect as those jobs created as a result of the direct jobs, while induced are jobs within the supply chain.

²⁷⁸ Darrington Wood Innovation Center, <https://www.strongcommunitiesfund.org/dwic>

Key Priorities in Forest Climate Resilience Planning and Programs:

- *Incorporate climate change risk in all aspects of the Comprehensive Plan on forests and land use.*
- *Support local organizations that educate the public about the important role of natural resource management in promoting climate resilience.*
- *Use county economic drivers and influence to promote locally sourced lumber and development of new wood products such as Cross Laminated Timber in partnership with adjacent timber producing counties.*

Timeline and Summary of Strategies, Actions and Benefits



Strategies, Actions and Benefits

1. Protect and enhance carbon storage and sequestration in forest ecosystems.		
	Actions	Benefits of Actions
	1.1 Include the ClearPath protocol for assessing GHG emissions and removals from forests and trees outside of forests every five years to understand general trends in carbon storage, sequestration, and emissions.	<ul style="list-style-type: none"> • Maintain or increase carbon mitigation and storage potential of forests (All actions) • Maintain and increase species diversity (Actions 1.2, 1.3) • Preserve important hydrologic features for trees, fisheries, and wildlife (Actions 1.2, 1.3). • Enhance the ability of rural forestry to extend rotation age before harvest (1.4).
	1.2 Work with local forest conservation, research, and educational organizations (including tribal governments) to develop measures to assess carbon storage potential: i) associate carbon storage with descriptors such as soil type and tree species and age; ii) identify a variety of ecosystem plots to monitor including wetlands, and iii) create a database to identify changes over time.	
	1.3 Identify and preserve the most important forest resource lands based on carbon storage and sequestration potential through i) expanded CEP to rapidly retire development rights and purchase of forestry conservation easements in Rural and Rural Forestry zones, ii) revise Rural Forestry zoning code to change minimum parcel size to 40 acres, and iii) require use of wildland urban interface building codes, and adopt FireWire practices.	
	1.4 Fund a study to evaluate the potential of setting up a carbon market in the County to encourage and reward forest landowners for enhancing carbon storage and sequestration.	

1.5 Assess the potential for increasing carbon sequestration on County-owned forest lands and measure the results of these programs.	
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2. Increase forest health, survival and climate resilience through forest management practices that reduce wildfire risk, increase soil moisture, and stream flows, and preserve wildlife habitat.	
Actions	Benefit
<p>2.1 Work with local conservation, research, and educational organizations (including Tribal governments) to actively measure and assess forest health in Forest Inventory Plots.</p> <p>2.2 Plant one million trees in Whatcom County by 2030 outside of designated Rural and Commercial Forest zones and incorporate forest management practices that include selective thinning, diversity of tree species, elimination of invasive species and attention to the local microclimate. Experiment with assisted migration using tree stock from more heat- and drought-tolerant seed zones.</p> <p>2.3 Increase soil moisture in forest ecosystems by i) mapping wetlands and identifying key function(s) and measures for health; ii) maintaining mature forest cover on and around wetlands, headwater areas, and significant watershed features; and iii) increasing the width of no harvest buffers along fish-bearing, perennial, and non-perennial streams.</p> <p>2.4 Harvests and reforestation should be designed to increase diversity in tree species and age, and to create natural firebreaks to control wildfires.</p> <p>2.5 Promote the National Fire Protection Association Firewise USA® Program and wildfire preparedness and planning concepts to communities and individual landowners in the county. Adopt and enforce international fires codes for building construction in DNR-designated wildland-urban areas. Ensure that local fire departments have the equipment and training to manage wildfires.</p> <p>2.6 Identify and designate critical habitat cores and climate migration routes and fund the acquisition/protection/restoration of these areas through the CEP program. Consider expanding CEP program to WUI high-wildfire risk areas.</p>	<ul style="list-style-type: none"> • Educate the public on the important role forests play in our local economy and the need to preserve (Actions 2.1, 2.2) • Preserve important hydrologic features in forests to maintain soil moisture and critical habitat for wildlife (Actions 2.3, 2.6) • Reduce the damage, intensity, and extent of wildland fires (Actions 2.4, 2.5) • Reduce property destruction and loss of life (and wildlife) during wildfires (Action 2.5, 2.6)
3. Promote climate resilient planning and programs to maintain our forests economy for recreation and wood products through leadership and education.	
Actions	Benefits of Actions
<p>3.1 Incorporate climate change risk into county planning activities such as the Comprehensive Plan and permitting when considering forest zoning or new roads and developments.</p> <p>3.2 Educate the public about the importance and role of natural resource management in climate resilience and producing food and fiber to support our economy, environment, and wellbeing.</p> <p>3.3 Engage local foresters on the impacts of climate change and promote ecological forestry practices including certifications such as the Forest Stewardship Council (FSC).</p> <p>3.4 Prioritize management and harvest for lumber production to maximize carbon sequestration. Encourage the development of new forest products like Cross Laminated Timber that can reduce the carbon of new buildings in coordination with adjacent timber producing counties.</p> <p>3.5 Use locally sourced lumber for all County building projects and promote this concept to local builders.</p>	<ul style="list-style-type: none"> • Improve emergency ingress and egress for wildfires, floods, landslides, and other natural disasters (Actions 3.1, 3.6) • Strengthen public knowledge and appreciation of our local forestry resource (Actions 3.2, 3.6) • Improve the climate resilience of forests throughout the County (Actions 3.3, 3.4, 3.5, 3.6)

3.6 Initiate demonstration projects on climate resilience that increase public education and build partnerships with local agencies such as Whatcom Conservation District, DNR, WWU and Whatcom Land Trust, WSU Ext. Forestry.	
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Conclusion

Climate change dictates that we must anticipate and be prepared for rapid changes in forest management practices in commercial, rural, and recreational forests. Rapid change in a sector that is accustomed to thirty to sixty years between planting and harvesting is challenging. What works today might not work in a decade or half century. Although we cannot say with absolute certainty how forests will respond to a changing climate, we can incorporate and test new ideas that may preserve a forest industry for future generations.

Forestry research on climate change has been going on for at least twenty years but has intensified over the last decade. Incorporating climate change vulnerabilities into reforestation plans should become routine, rather than an exception. The county should support and partner with organizations that hire stewardship foresters such as the Whatcom Conservation District, Washington State University Extension Forestry, Tribes, and others. We can adapt and build resilience into our forest resources and maintain this vital resource for future generations. As with all change, communication and education are critical.

Ecosystems

Whatcom County ranges from the Cascade Mountains to the lowlands to the Salish Sea creating a wide range of diverse ecosystems. Despite the alterations of the landscape and impacts on wildlife over time, Whatcom County remains an area of significant biodiversity. The County is characterized by 36 general habitat types and presently has 433 non-fish vertebrate species, including 15 amphibians, 8 reptiles, 320 birds, and 86 mammals.²⁷⁹ Adding fish species to this list, there are well over 500 vertebrate species known to occur. Whatcom County is also home to over 1,100 species of plants as well as an unknown number of fungi, invertebrates, and other organisms on which the higher forms, including humans, depend.

Our ecosystems maintain many environmental processes that benefit humans, sustaining life as we know it. There are countless ecosystem services that humans and animals alike depend on for our health and wellbeing, but they generally fall into four broad categories: 1) *provisioning*, such as food products or water resources; 2) *regulating*, such as stabilizing climate and limiting disease; 3) *supporting*, such as nutrient cycling, carbon storage and oxygen production to maintain life; and 4) *offering cultural services*, such as spiritual benefits and recreational opportunities.²⁸⁰ All of these ecosystem functions require healthy ecosystems (Fig. 3.16).

Impacts from climate change are already affecting the health of ecosystems in Whatcom County.²⁸¹ Shorelines and stream banks are being degraded by storm surge and flooding, salmon runs are threatened, western red cedar trees are dying, and native plants are migrating to more favorable growing zones. Climate impacts are likely to worsen without intervention. Ecosystem services that help us stabilize the climate and adapt to a changing climate are essential to human well-being and require immediate attention.

Ecosystem services such as carbon sequestration and storage should play a central role in our climate change response, both toward achieving net carbon neutral or net negative targets and as a by-product of the other goals described below. Community awareness of

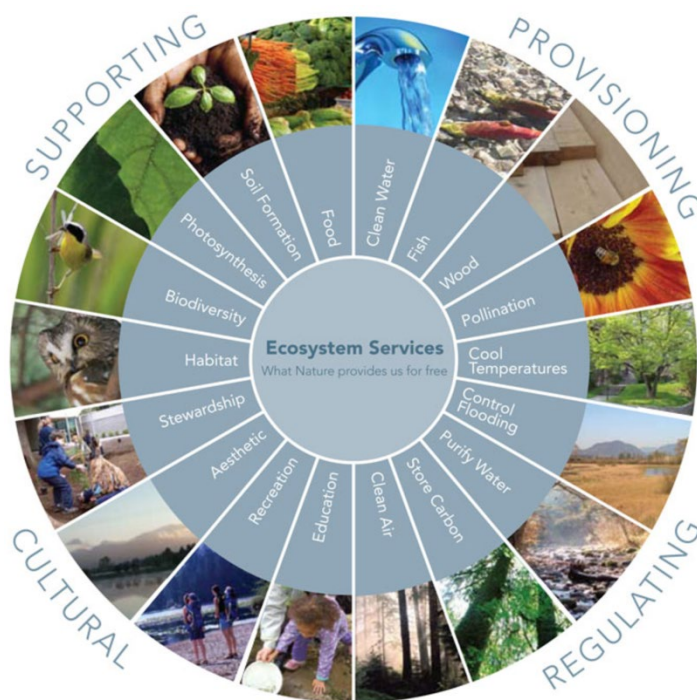


Figure 3.16. Ecosystem Services – what nature provides us for free. Graphic credit: TEEB Europe.

²⁷⁹ Whatcom County 2017 Ecosystem Report, prepared by the Wildlife Advisory Committee.

²⁸⁰ Kershner, D. 2019, Chapter 8, Land Use, Recreation, and Wildlife and Habitat. 2019 Community Research Project, prepared for the Whatcom Climate Impact Advisory Committee. <https://whatcomcounty.us/3162/Meetings-Additional-Information>

²⁸¹ Mauger, G.S., et. al. 2015. State of Knowledge: Climate Change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration. Climate Impacts Group, University of Washington, Seattle. doi:10.7915/CIG93777D

the importance of ecosystems is, in general, low. Wetland, estuary, and forest ecosystems are capable of storing much more carbon than they release. This stored carbon accumulates in soil and sediments, live plant and animal tissues, and wood products, and in some instances (e.g., in peatlands and conifer forests of the Pacific Northwest) can serve as a carbon sink for centuries. Enlisting community support for protecting these critical ecosystems is essential.

Ultimately, planning for climate change may be viewed as a form of risk management with the goal of building resilience to climate change impacts. By implementing the strategies and actions in this document we may avert, lessen, or adapt to some of the expected consequences of climate change. For example, adaptation strategies such as landscape-level planning can play an important role in controlling outbreaks of pests and diseases and building resilience to natural hazards exacerbated by climate change. Land use decisions the County makes today will either reduce the effects of climate change in the future or worsen the economic and environmental toll. Consideration of climate change in all of the County's land use policies and regulations can significantly reduce this damage to our economy and quality of life.²⁸²

Providing information on climate-related risk can improve the capacity of land managers and enable timely decision making. A risk management approach may also save resources, amplify social resilience, support ecological restoration, and foster engagement and collaboration between multiple stakeholders. Due to the complexity of challenges and the diversity of actors involved in addressing land use challenges, a mix of policies, rather than single policy approaches, can deliver improved results in addressing the complex challenges of sustainable ecosystem management and climate change. An example of a risk-based adaptive policy mix is combining universal access to early warning systems with effective contingency planning and implementation of climate risk mitigation measures.

Goal and Strategies for Ecosystems

Ecosystems and their component elements, including biodiversity and associated processes, are vulnerable to ongoing, gradual changes in climate, and extreme perturbations from storms, floods, droughts, or wildfires. Resilience is defined as "the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks." The following overarching goal is designed to maintain the health of local ecosystems in the face of a changing climate:

Goal: Develop climate resilient ecosystems by protecting and restoring ecosystems and the carbon they store and maximizing ecosystem health to enhance carbon sequestration.

The strategies that support this goal fall into three main categories: i) Protecting existing ecosystems and the carbon they store (strategy 1); ii) Restoring natural ecosystems (strategy 2); and iii) Ensuring healthy ecosystems to maximize carbon sequestration (strategies 3 and 4).

²⁸² Kershner, D. 2019, Chapter 8, Land Use, p. 137.

Strategies for Ecosystems

1. Incorporate projected climate change impacts into revised land use and development codes to reduce damage to healthy ecosystems and increase the climate resilience of vulnerable ecosystems.
2. Provide technical, logistical, and financial support for community efforts to restore and enhance ecosystems.
3. Implement long-term monitoring to assess the impact of climate on ecosystem health.
4. Preserve and enhance ecosystem health to build climate resilience in our hydrologic processes, air and water quality, carbon storage, and ecological connectivity.

Strategy 1: Incorporate Projected Climate Change Impacts into Revised Land Use and Development Codes to Reduce Destruction and Increase the Climate Resilience of Vulnerable Ecosystems

Protecting land for recreation and wildlife habitat generally provides ecosystem services that are essential to the resilience of society in the face of climate change. These ecological benefits, which are freely provided when ecosystems are properly functioning, include such services as wood products, fish, clean drinking water, flood control and natural pollination of crops.²⁸³

Community awareness starts at the County level. The protection of ecosystems from climate and human impacts must be reflected throughout the Comprehensive Plan and the codes and regulations associated with land use. The County should also support our local non-profit organizations that enlist public volunteers in environmental projects and promote climate change education in our local school systems.

A meaningful response to climate change will require changes in the land use code. It will require increasing the pace of protection of working lands, recreation lands, habitat, and ecosystem restoration activities, as well as the scale of investment in these efforts. If there is going to be growth in Whatcom County that doesn't make us even more vulnerable to climate change, the County government needs to do a better job of focusing development in existing urban areas, while devoting more resources to protecting farmland and forest lands, shorelines, and riparian corridors and to restoring habitat. Low density development is one of the key contributors to carbon emissions.²⁸⁴

Currently, the County allows wetland mitigation projects in new developments, which simply means that a wetland can be removed if a comparable-size wetland is created elsewhere. Studies have shown that wetland mitigation projects are not providing the ecosystem services equal to what is being lost to permanent development.²⁸⁵ At the very least, the mitigation project should be required to catalogue the ecosystem functions and demonstrate how they would recreate these key functions. Climate vulnerability assessments should also be considered for significant land use changes and must be incorporated into County development regulations in identified climate impact zones such as shorelines of the state, floodplains, alluvial fan hazards, and other critical areas.

²⁸³ Kershner, D. 2019, Chapter 8, Land Use, p. 137

²⁸⁴ Kershner, D. 2019, Chapter 8, Land Use, p. 137

²⁸⁵ Chandrasekhar, A., How effective is restoration at recreating wetlands? The Economics of Ecosystems and Biodiversity blog, published December 24, 2013. <http://www.teebweb.org/how-effective-is-restoration-at-recreating-wetlands/>

Strategy 2: Provide Technical, Logistical and Financial Support for Community Efforts to Restore and Enhance Ecosystems

Retaining, restoring, and expanding critical habitats can have outsized positive benefits. Planting trees in non-forested areas such as grasslands is an excellent example of increasing carbon sequestration and provides a host of ancillary ecological services. Enhancing carbon storage also requires protecting accumulated carbon in vegetation and soils from future catastrophic loss (or “sink reversal”) triggered by disturbances such as flood, drought, fire, or pest outbreaks, or future poor management.

Many local non-profit organizations are involved in restoring and enhancing natural ecosystems by expanding riparian zones and purchasing wildlands for preservation. These organizations are well-equipped to do this work and should be supported by the County.

Strategy 3: Implement Long-Term Monitoring to Assess the Impact of Climate on Ecosystem Health

Maintaining and enhancing ecosystem health ties together both strategies 4 and 5. Ecosystem health is the indicator or measure of the well-being and natural condition of ecosystems and their functions. The most important aspect of measuring ecosystem health is that it provides a baseline for assessing changes over time, especially the changes that are occurring as a result of climate change. Both the Critical Areas Ordinance and the Shoreline Management Program have no standards for net loss of ecological function, nor does the County directly monitor ecological function over time. Baseline information on the health status of ecosystems in the County is sorely lacking.

Much of the needed information on ecosystem health can be accomplished by expanding County-sponsored citizen science programs, modeled after programs sponsored by the Marine Resources Committee. The County can also enlist and help fund local conservation organizations to help create a system for measuring ecosystem health and periodic monitoring of designated ecosystems in the County. This information on ecosystem health, along with considering cross-cutting strategies and actions in the other areas covered in this section on the Natural Environment, will assist prioritization of the projects presented in strategy 5.

Strategy 4: Preserve and Enhance Ecosystem Health to Build Climate Resilience in Our Hydrologic Processes, Air and Water Quality, Carbon Storage, and Ecological Connectivity

Enhancing ecosystem health is important because climate-induced stressors are projected to increase, including more intense rainfall events, floods, periods of extreme heat, drought, and wildfire, higher sea levels and damaging waves. In Whatcom County, ongoing coastal erosion will only intensify as sea levels rise, adding to land use pressure. A pro-active strategy is needed to restore, revegetate, and strengthen coastlines and estuaries to withstand changing conditions. Great attention needs to be focused on preserving and enhancing ecosystem resilience to compensate for projected extreme impacts if climate policy falls short.

Ecosystems most at risk are those that are already degraded or near the limits of tolerance. Low resilience may be exacerbated by loss of key species, introduction of invasive species or diseases, and reduction and fragmentation of habitats, factors that may or may not be related to climate change. As such, reversing or mitigating these factors can increase ecosystem health and climate resilience. For example, reintroducing American beaver can help adapt to declines in glaciers and snowpack, which impact summer streamflow, because they help store more water in wetland and riparian areas.

Restoring saltwater wetlands is an effective strategy for sequestering carbon, while improving habitat for salmon and migratory birds. Western Washington University researchers John Rybczyk and Katrina Poppe have studied sediments in at the Nature Conservancy's Port Susan Preserve, where dike removal and lowering of another dike have begun the process of restoring a 150-acre portion of the Stillaguamish Estuary. These researchers have found that restoring the marsh has resulted in twice the carbon sequestration of other marsh properties outside the restoration zone.²⁸⁶

Additionally, enhancing the connectivity of natural areas will facilitate the movement of plant and animal communities to more suitable climate zones in more northerly latitudes and higher elevations.²⁸⁷ Consultants to the County recommended in 2005 that the impact of development projects on wildlife connectivity be identified and considered in development permitting as any other critical area would be evaluated. The County Council didn't approve the change²⁸⁸ but with the impacts of climate change, habitat connectivity and wildlife migration corridors are critically important for maintaining ecosystem health and building ecosystem resilience.

Sustainable ecosystem management can also contribute to resiliency in various ways, through reducing extraction of natural resources, expanding protected areas, combatting invasive species, and managing for species at risk. Ensuring that all components that make up an ecosystem function effectively is essential for the overall health of our natural resources.

The County has tools to address strategy 5, including the CEP program and potentially creating a county-wide carbon offset program that would value carbon storage and compensate property owners who voluntarily protect and enhance their carbon stores. This cross-cutting carbon offset market would apply to forests and agricultural lands in addition to ecosystems.

Key Priorities for Ecosystems:

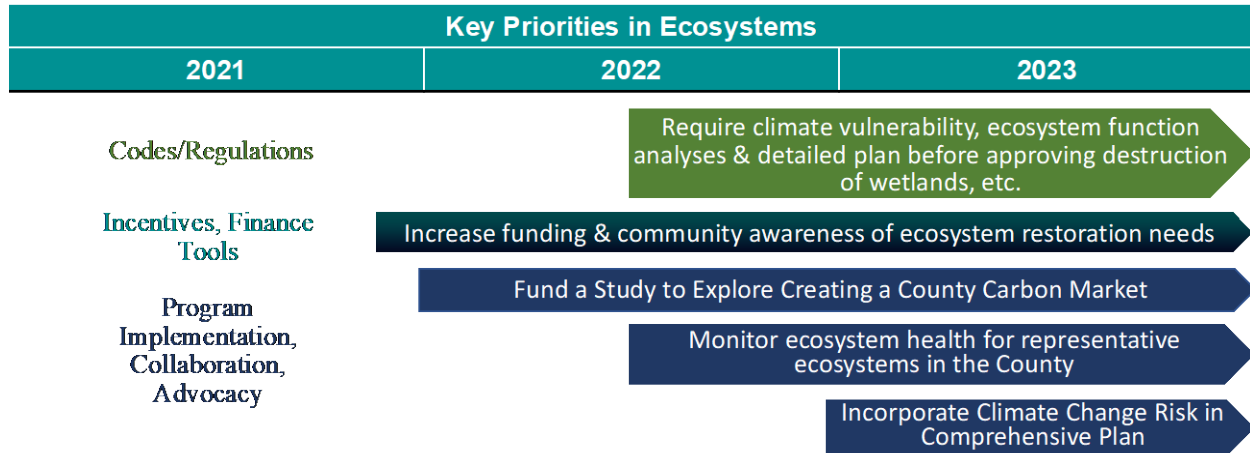
- ***Increase funding and community awareness of ecosystem restoration projects.***
- ***Create a system for monitoring ecosystem health over time and apply to representative ecosystems in the County.***
- ***Require climate vulnerability analysis, ecosystem function assessments, and a detailed plan to recreate these functions before approving any destruction of wetlands or other critical ecosystems.***
- ***Increase funding and staff capacity for the County CEP and develop a carbon market and implement carbon credit projects.***

²⁸⁶ Grace-Sanders, J, "A saltwater marsh in recover is gobbling carbon, gaining ground," *Seattle Weekly*, August 29, 2019

²⁸⁷ Krosby, M., et.al. 2016. The Washington-British Columbia Transboundary Climate-Connectivity Project: Identifying climate impacts and adaptation actions for wildlife habitat connectivity in the transboundary region of Washington and British Columbia. Climate Impacts Group, University of Washington.

²⁸⁸ Parametrix et al., Critical Areas Ordinance Best Available Science Review and Recommendations for Code Update, Prepared for Whatcom County, May 2005.

Timeline and Summary of Strategies, Actions and Benefits



Strategies, Actions, Benefits for Ecosystems

1. Incorporate projected climate change impacts into revised land use and development codes to reduce destruction and increase the climate resilience of vulnerable ecosystems.		
Actions	Benefits of Actions	
1.1 Prioritize the preservation of healthy, climate-resilient ecosystems throughout the Comprehensive Plan.	<ul style="list-style-type: none"> Better understanding of the true value of ecosystems. (1.1, 1.2, 1.3, 1.4, 1.5) Expand habitat for wildlife and avoid human-wildlife interaction (1.4, 1.5, 1.6, 1.7) Protect sensitive hydrologic systems and prevent fragmentation (1.5, 1.6, 1.7, 1.8, 1.9) Increase freshwater availability for humans, wildlife, fish, and ecosystems (1.3, 1.4, 1.5, 1.7, 1.8) Maintain maximum diversity of species (all actions). 	
1.2 Conduct climate vulnerability assessments when planning and developing infrastructure (roads, bridges, stream crossings, buildings) in sensitive ecosystems.		
1.3 Update County Code to require climate vulnerability assessments when permitting new development or land use projects in or adjacent to climate impact zones (100+ yr. floodplains, coastal shorelines, geohazard areas, etc.), such as the Shoreline Management Program given impacts such as sea level rise.		
1.4 Designate climate impact zones within the Critical Areas Ordinance and regulate according to projected climate impacts and climate resilience needs, for example, include migration corridors and refugia to allow shifts in species distribution.		
1.5 Consider future climate conditions into the identification of fish and wildlife habitat conservation areas and wetlands.		
1.6 Incorporate greater diversity of topography and climate conditions in areas protected from development such as riparian and wetland habitats to allow for shifts in species distribution and ensure ecosystem resilience.		
1.7 Designate high-value habitat areas and climate migration corridors and habitat connectivity as a critical area to maintain larger, undisturbed tracts of intact ecosystems and the connections between them.		
1.8 Protect wetlands, riparian areas, and associated buffers from logging and other stressors.		
1.9 Incorporate climate change into the Ecosystem Report and develop an adaptation plan that leverages the work already done by the Nooksack Indian Tribe. ²⁸⁹		

²⁸⁹ Nooksack Indian Tribe Climate Change Adaptation Plan for Key Species and Habitats, <https://cig.uw.edu/wp-content/uploads/sites/2/2020/05/Nooksack-Indian-Tribe-Climate-Change-Adaptation-Plan.pdf>

2. Provide technical, logistical, and financial support for community efforts to restore and enhance ecosystems.	
Actions	Benefits of Actions
2.1 Support the planting of one million trees in Whatcom County by 2030 by identifying non-forested County-owned lands and by partnering with other organizations and private landowners. Provide logistical support and tree stock for County-owned lands.	<ul style="list-style-type: none"> • Raise community awareness and support for climate action (2.1, 2.2) • Increased community funding to preserve natural systems (2.2)
2.2 Expand support for non-profit conservation programs that build ecosystem resilience to climate change through land protections, restoration, and community engagement.	

3. Implement long-term monitoring to assess the impact of climate on ecosystem health.	
Actions	Benefits of Actions
3.1 Monitor the status of critical areas and priority habitats (e.g., ecological processes sustaining these habitats and factors limiting them) and incorporate findings into planning and regulatory updates.	<ul style="list-style-type: none">• Understand the trend in ecosystem health (3.1, 3.2, 3.4)• Prioritize funding for restoring ecosystem health (all actions)
3.2. Assess and monitor ecosystem health on County owned properties, including parks, right of ways, floodplain properties, etc.	
3.3. Develop goals, risk tolerances, and restoration strategies on County owned properties to address climate impacts and climate resilience.	
3.4. Expand County-sponsored citizen science programs for terrestrial ecosystems, modeled after programs sponsored by the Marine Resource Committee. Western Washington University faculty and staff could support these efforts.	
4. Preserve and enhance ecosystem health to build climate resilience in our hydrologic processes, air and water quality, carbon storage, and ecological connectivity.	
Actions	Benefits of Actions
4.1 Significantly increase the rate and scale of conservation easement acquisition of important ecosystems through the Purchase of Development Rights Program.	<ul style="list-style-type: none">• Protect sensitive areas and reduce damage from floods (4.1, 4.3, 4.4)• Enhance carbon storage (4.2, 4.4)
4.2 As part of the County’s Natural Resource Marketplace, develop a carbon valuation and credit program to compensate property owners who voluntary protect and increase carbon stores (forests, wetlands, soils) to mitigate climate impacts.	
4.3 Restore floodplain connectivity, native vegetation, and forest ecosystems within floodplains to enhance natural flood storage and mitigate flood impacts to ecosystems.	
4.4 Identify and protect mature forest stands that form connected habitat blocks from the Puget Sound to the Cascade Mountains (e.g., Chuckanut Wildlife Corridor, Nooksack River, and associated tributaries) through regulations, conservation easements, and updated management requirements.	

Conclusion

Healthy ecosystems will provide greater climate resilience for Whatcom County. Healthy ecosystems and the essential services they provide are not only necessary for sustaining our economy, but also contribute to the high quality of life in this County. Protecting sensitive ecosystems and habitat should be a top priority for the County, with restoration as a second priority, because it is cheaper to prevent damage than to try to fix it. Creating climate resilient ecosystems now will help us avoid potential irreversible damage over the next decade.

SECTION 4 - IMPLEMENTING THE CLIMATE ACTION PLAN

Office of Climate Action

The message of this Plan is clear. Section 1 explains why we must act quickly and decisively. We must mitigate the effects of our activities on the local and global climate, and we must adapt to those effects of changing climate that are beyond our ability to mitigate. Sections 2 and 3 outline specific, detailed, scientifically backed actions that we need to take to accomplish our mitigation and adaptation goals.

The County needs to place high priority on reducing greenhouse gas emissions and building climate resilience in our communities, while ensuring an equitable transition for those whose jobs and livelihoods may be affected by climate change and climate action. This final section proposes an organizational structure for effectively implementing climate action.

To be effective, the County must act according to the guiding principles laid out in Section 1 with emphasis on urgency, environmental and social equity and justice, transparency, and accountability. The County must also exercise leadership, promote systems-level solutions, and employ best available science and management practices. The inevitable transition to net zero emissions will have an enormous impact on Whatcom County's economy, which is home to two refineries that represent almost 2,400²⁹⁰ highly skilled jobs. Whatcom County must be a leader in facilitating this economic transition to be competitive in the rapidly evolving clean energy future.

We propose that the first step toward climate resilience is to establish an Office of Climate Action within the County Government, headed by a senior Climate Advisor and reporting to the County Council and Executive. This Office needs to exercise leadership in addressing the three areas of concern that emerged in the 2019 Community Research Project leadership and coordination, data and information, and community engagement.

Leadership and Coordination

The sheer number of strategies and actions presented in this plan's Appendix illustrates both the challenge and urgency needed to address climate disruption. We believe that to realize the full potential for climate action, the County needs a single office responsible for coordination, data collection and communication. As the County works toward more effective climate action, many departments will continue the important work they are doing now and much of their expertise will be needed to address the strategies and actions outlined in this plan. The job of the Office of Climate Action should be to coordinate programs that draw on this expertise, seek and secure funding for climate related activities, and ensure that County departments are aware of each other's plans and activities, work in concert to achieve climate action goals, and act according to the principles of urgency, equity, transparency, and accountability. In particular, the Office of Climate Action can help the County take full advantage of increasing opportunities for funding of climate-related projects such as the Washington Clean Energy Fund, various funds established under the 2021 Climate Commitment Act, and any new federal grant opportunities that address climate change.

²⁹⁰ Hodges, H., A. Rucker, J. McCafferty, March 2019. Employment at Cherry Point, Exploring the economic impacts of Cherry Point on Whatcom County. Prepared by the Center for Economic and Business Research, Western Washington University. The number of jobs includes *bp*, Phillips 66 and Western Refinery Services.

To ensure coordination in addressing all aspects of the Climate Action Plan, the Senior Climate Adviser should have direct access to the County Executive. In some cases, continuing the work of the existing Climate Leadership Committee, to be chaired by the Senior Climate Advisor, may be the most expedient way to ensure this coordination. In addition, it is vital that all County agencies consider climate effects when deciding and implementing policy; the Office of Climate Action can help agencies see their own particular responsibilities through a "climate lens."

In addition to coordinating key climate priorities and programs, the Climate Advisor should actively coordinate and cooperate with those organizations and communities in Whatcom County and beyond who will be affected by climate change and who can be partners in the effort to mitigate and adapt to it. Within the County, these include tribes, city governments, school districts, water and conservation district, ports, utilities, labor organizations, agricultural organizations, businesses, media, and community advocacy groups. Partners outside the county include neighboring counties, state and federal agencies, local and provincial governments in British Columbia, and state and national climate advocacy organizations.

We are particularly encouraged by recent exchanges between leaders of the County and of the City of Bellingham, outlining concrete steps to ensure coordination, and also proposing that smaller city governments be brought into our joint efforts. We second these efforts and recommend that the County's Senior Climate Advisor organize and chair a Climate Action Committee including representatives of the County, cities, Port of Bellingham, Public Utility District, and other relevant governmental agencies.

There are many areas where the County can collaborate with the city governments, including land use codes that support density in urban areas and urban growth areas, electrification of new and existing buildings, water resources planning, resilience centers especially in areas with vulnerable populations, and securing reliable sources of renewable energy to significantly reduce emissions from electricity generated by fossil fuels.

In order to carry out these tasks of leadership, the Senior Climate Advisor should have wide experience in government and corporate relations, as well as technical and policy knowledge of the nature of the climate crisis, basic climate science, and energy policy. In addition, an important part of leadership is problem-solving and identifying opportunities. It is inevitable that, in the next few years as we move toward carbon-neutrality and climate resilience, unexpected problems and opportunities will arise. The current world-wide transition to net zero emissions is promoting rapid advances in technologies, so flexibility and willingness to change strategies are critical. The Senior Climate Advisor should have the ability to think creatively and adaptively, where necessary recommending that the County adjust and update climate policies and actions as our knowledge and experience grow, and local conditions change.

The Office of Climate Action should also consider engaging interns from local colleges and universities to undertake specific, time-limited tasks.

Data and Information

Accurate and current data and information resources are essential for effective climate action and for compliance with our principles of transparency and equity. The Office of Climate Action should exercise

leadership through collecting and disseminating vital information about climate change and about the County's progress in addressing it. In order to carry out the informational aspects of the Office's mission, the Advisor should be assisted by a technical information specialist who can compile and disseminate information regarding climate change and the County's progress in climate action.

The information specialist should have experience in climate-related data and information science. Data compilation services will include tracking and modeling emissions with the ClearPath model, updating information on energy savings from facility upgrades or other investments made to enhance climate resilience, monitoring information on climate programs at the state and federal levels and in neighboring counties and maintaining an online dashboard for the County on climate progress.

The work of the information specialist will also be instrumental in helping the County prioritize the numerous climate actions that it needs to undertake. Since questions of cost as well as efficacy of various actions are likely to arise, such tools as marginal abatement cost (MAC) analysis will be extremely useful to county planners and administrators in determining priorities for climate action. MAC analysis evaluates the monetary cost of implementing a specific action per unit of greenhouse gas emissions prevented. Recent improvements also allow MAC analysis to the interplay between different actions, and thereby guide decisions on the order in which to take different actions.^[4] For example, GHG reductions from EV's increase over time as the electricity generation becomes cleaner. Or utility-scale renewable costs are much higher if new transmission must be built to get this electricity to the customers. MAC should not be the sole guide for prioritization since it does not consider social benefits and costs, climate resilience benefits, or other environmental gains that might come from climate actions. With this caveat, we recommend that the County commission such an analysis, and that the information specialist be conversant with such techniques, minimally at the level of supervising a contracted analysis.

In addition to *collecting* information, the office should be a readily available *source* of reliable information. The public will be most interested in the impacts on workforce transition, jobs, equity, and the environment over time. The Office should regularly inform the public about our climate goals and our progress toward achieving them. Thus a transparent, public-facing dashboard of county climate-related data and information will be essential. The Office should also provide testimony when required to relevant state and federal bodies on climate legislation and rules that facilitate our County climate goals.

The Office can also serve as a source of information about the County's ongoing and future programs of climate action. For example, the County has upgraded facilities to increase energy efficiency, reducing operational costs and saving taxpayers money. However, actual reporting on these savings is hard to find. Another example is the County-instituted a purchase of development rights program that can increase climate resilience by preserving and enhancing open space, high value working lands, and ecosystem services. This program is important and deserves much greater visibility.

In addition to compiling relevant data and making them available to county staff and the public, the Office should consult where appropriate with academic, government, and foundation experts on the biophysical, economic, and social aspects of climate change.

Community Engagement

Coordinating climate action and collecting and disseminating climate information will only be effective if the public understands the urgency of climate action and knows that this Plan is being carried out in a just, equitable, and transparent manner. For this reason, the Office of Climate Action needs to take a broad range of actions to inform, influence, and secure support from the general public in our County.

As soon as it is established, the Office should mount a campaign through print, electronic, and social media to explain the Climate Action Plan. It should enlist members of CIAC, academic and scientific experts, and advanced university and college students to give presentations to variety of interested organizations and community stakeholders.

The Office should also request that to kick off the implementation of this Plan, the County Executive and the Climate Advisor hold a public, town-hall type meeting to announce and promote the Climate Action Plan and hold yearly town-hall meetings thereafter to report on progress and discuss issues regarding the implementation of the Plan.

The Office should develop an outreach plan with local organizations involved in conservation, sustainability, and environmental education to inform the community on climate change. The main focus of this educational outreach would be school districts, but it is also important to reach out to community organizations that can help spread the message of the importance of climate action.

Role of the Climate Impact Advisory Committee

The County Council established the Climate Impacts Advisory Committee in 2017. Its mandate includes both providing expert advice to the County Council and Executive and serving as “a conduit to the public for information exchange, education, and engagement.” We recommend that the Office of Climate Action take advantage of the expertise and experience of CIAC members to carry out aspects of its mission.

The Committee should continue the active role it began with the Community Research Project in 2019 and has continued with the compilation of this Plan. In accordance with its enabling legislation, it should be prepared to advise the County Council on cross-cutting projects that will enhance climate resilience, changes to the Comprehensive Plan and existing codes, budgetary priorities, and possible sources of funding for climate action. CIAC members can provide their own expert advice, consult with scientific and policy experts, and help with community outreach as directed by the Office of Climate Action. An important function of the CIAC is advising the Office of Climate Action of new, emerging technologies and opportunities to provide a systems-level approach to achieve climate resilience.

To take full advantage of CIAC's role, the Climate Advisor needs to serve as the County liaison to the committee. We recommend that in the future, when citizens apply for CIAC vacancies, the Climate Advisor should recommend to the County Council those applicants that might best meet the needs for specific expertise and community representation. The Committee can thus serve as volunteer advisers to the Office on general policy directions as well as on specific projects and their implementation.

Funding

To be effective, the Office of Climate Action needs adequate funding. We fully realize that funds are scarce in a time of economic uncertainty, but we also believe that action is urgent and imperative to simultaneously help combat climate change and recover the economy. Strategic investments made now can save the County both money and effort in the future. We therefore recommend that the County Council allocate funds for the Office of Climate Action immediately, including supporting the Senior Climate Advisor and the information specialist as permanent positions beginning in fiscal year 2022. Staffing the Office of Climate Action, in turn, will enable the County to seek and secure outside funding for specific actions recommended in this Plan. Without such staffing, it may be difficult to take full advantage of the increasing opportunities to secure funding for climate mitigation and resilience.

Whatcom County is competing with other communities to be a leader in Washington state for the clean energy transition, as the state rapidly replaces fossil fuels in its economy. This transition will create the jobs needed to compete worldwide over the next several decades. A successful transition will also provide Whatcom County with the skilled workforce needed to effectively compete in the 21st Century and a stable, growing economy.

Once the Office of Climate Action is established, it can coordinate proposals for grants requests that are already available and should become increasingly so over the next two years. The State Department of Commerce is sending out requests for proposals for the Clean Energy Fund, including for example energy retrofits for public buildings. Other state sources, such as the funds appropriated in the various transportation-related bills detailed in Transportation, should also come online soon. The infrastructure bill currently being negotiated, in whatever form it passes Congress, will almost certainly include many programs that can enable many of the recommendations made in Section 2 on the Built Environment.

Other possible sources include the Amazon Climate Pledge Fund ²⁹¹and the Gates Foundation's Breakthrough Energy Ventures. In addition, the Office can collaborate with universities to seek funding for research, including for example agricultural programs through WSU and marine ecology programs through WWU and UW. A combination of all these sources could provide funds for GHG emission reductions, ecosystem adaptations, equitable job transitions, and climate resilience. But it takes time to pursue grants, loans, and collaborative projects, and we believe that quickly establishing and funding the Office of Climate Action is a timely investment that will bring immense returns in the form of money for desperately needed climate action measures.

Priorities to Implement in the First Year

The CIAC has created a list of key priorities to initiate in the first year of operation for the Office of Climate Action. This list was developed at the request of County leadership and the Council due to the large number of strategies and actions that are proposed in this five-year plan.

Climate action must begin with establishing the Office of Climate Action (OCA) and appointing an interim manager who can devote a minimum of 70% of their time to organizing and initiating the first-year priorities. The key responsibility of the interim manager will be to develop job descriptions for the

²⁹¹ <https://sustainability.aboutamazon.com/about/climate-pledge-fund>

Climate Manager and Data Analyst and start the process for hiring permanent staff for these two positions. The CIAC will assist in recommending skill sets and responsibilities for both positions.

The interim manager will organize and chair the internal Climate Action Team (CAT) committee and external Joint Climate Action Team (JCAT) committee and serve as the liaison for the CIAC until a permanent director is hired. Planning and community outreach will be extremely important as the scope, organization, and initial first-year activities are rolled out for the OCA. The interim climate manager will also start the implementation of the first-year priorities for the Built and Natural Environments that are listed below.

1. Advocate for a state-level legislation that encourages quick adoption and growth of renewable electricity generation with an emphasis on community solar and addresses our additional need for Transmission and Distribution. Throughout this climate action plan we emphasize the need for state-wide legislation that will accelerate decarbonization and create climate resilience, the two primary drivers in this CAP. During the 2019 Community Research interviews, the most common concern was the lack of community solar in Whatcom County. A 2021 ranking of states based on their installed megawatts of solar PV (both rooftop and community solar) showed that Washington ranks 37th and is near the bottom of solar PV penetration compared with other US states along the Canadian border (Table 4.1). Only North Dakota has a lower percentage of solar in its electricity. For comparison, Oregon has installed over four times more solar PV than Washington. Our state should look to Minnesota and Oregon legislation on how to successfully increase solar PV.

Minnesota community solar has become the most successful in the country. Their success is largely attributed to having no caps on community solar development and creating a new compensation model that added up all the costs and benefits of distributed solar, including the social cost of carbon (i.e., the value for avoided carbon emissions). In addition, Minnesota's Public Utility Commission found that the grid costs for managing the variability of solar power flows were essentially zero and would remain so until solar generation exceeds ~15% of the state's power supply.²⁹² Minnesota continues to refine its value-of-solar rate that analyzes and rebalances the myriad costs and benefits of solar.

The U.S. Department of Energy's (DOE) Solar Futures Study²⁹³ showed that there is enough community solar installed in the US today to power 600,000 households. The new goal set by DOE's National Community Solar Partnership is to enable community solar systems to power the equivalent of five million households by 2025 and create \$1 billion in energy bill savings. Essentially, this means an increase of more than 700% in the next four years. The Sharing the Sun²⁹⁴ report shows that community solar can lead to substantial savings on electricity bills – from 5 to 25%.

PSE's planned community solar project for the Whatcom Falls water storage tank site will add ~400 kW (about 1,200 panels and ~270 shares). This is an important start, but Whatcom County should set a goal

²⁹² Fairley, P. Minnesota finds net metering undervalues rooftop solar. March 24, 2014: <https://spectrum.ieee.org/minnesota-finds-net-metering-undervalues-rooftop-solar>

²⁹³ Solar Futures Study, US Department of Energy's Solar Energy Technologies Office, September 2021: <https://www.energy.gov/eere/solar/solar-futures-study>

²⁹⁴ Heeter, J. Sharing the Sun: Understanding Community Solar Deployment and Subscriptions, May 21, 2020, NREL: <https://www.nrel.gov/docs/fy20osti/76853.pdf>

consistent with the US DOE programs, which would mean providing roughly 3,500 households with community solar over the next four years.

Expansion of community solar has the added benefit of creating equity for both low-income families and renters who cannot afford the cost of installing renewables and/or do not own their rooftop. Many PUD-owned community solar projects, including the Snohomish Arlington microgrid, set aside a portion of their panels for low-income families by further reducing the cost of participation for these groups.

Transmission and distribution planning also needs to get underway with Whatcom's local utilities and the State Department of Commerce. With an anticipated doubling of electricity demand by 2050, much of this electricity will come from wind power imported from Montana and Wyoming and solar power from the Southwest. Additional transmission will be needed to meet this demand, which often requires at least 10 years to acquire the land, permits, and construction of this new infrastructure.

Table 4.1. State rankings of installed solar photovoltaics (PV) as of the first quarter of 2021. The listed states are primarily northern border (exceptions are California, Massachusetts, and Oregon). Jobs include both solar manufacturing and installation. The entire listing of all fifty states (including Washington DC) and can be found at seia.org/states-map.

State	2021 Q1 Ranking	Megawatts Solar PV	% Solar in Electricity	Jobs
California	1	32,394	24.0%	68,677
Massachusetts	8	3,380	18.5%	9,495
New York	10	2,990	2.8%	10,214
Minnesota	15	1,617	3.6%	3,993
Oregon	19	1,172	2.6%	3,502
Michigan	25	590	0.5%	3,379
Idaho	26	583	3.7%	486
Wisconsin	27	488	0.6%	2,910
Vermont	31	385	15.0%	1,046
Maine	36	280	1.8%	595
Washington	37	270	0.3%	3,565
New Hampshire	41	147	0.9%	985
Montana	43	119	0.3%	288
North Dakota	51	1	0.0%	211

2. Start a dialogue with bp management about how they intend to reduce their GHG emissions. Since bp headquarters announced a 40% reduction in oil production by 2030 and a 30% reduction in GHG emissions, little information has been available as to how this commitment will impact the largest oil refinery in the state, bp Cherry Point. Recently, however, bp has announced that they plan to spend \$269 million at Cherry Point to produce more renewable diesel, a biofuel, and make other improvements to reduce GHG emissions around 7%.²⁹⁵

Additional ideas that could be included in this dialogue with bp management include participating in EPA's EnergyStar program for refineries, converting to the use of clean electricity, and using electricity instead of fossil fuels to pre-heat high temperature processes. Undoubtedly bp has the technical knowledge and insight to suggest additional ways to improve efficiency and reduce their GHG emissions. The County and Port can help by advocating for state and federal funds to help fund these important initiatives.

²⁹⁵ Bernton, H., BP to up Cherry Point renewable diesel production, Seattle Times, Oct. 4, 2021.

https://replica.seattletimes.com/popovers/dynamic_article_popover.aspx?artguid=66ff6601-00d3-4b7b-aa0c-d6019c884d44

3. Adopt new financial tools and incentives that will accelerate electrification of existing buildings and the installation of distributed energy resources for climate resilience. Only 1% of our total building stock is new every year, so our efforts should concentrate on electrifying space and water heating in existing building stock. The biggest financial impediment to buying high-efficiency heat-pump based heating systems is the initial cost, even though their high efficiency pays for itself over time by lowering electricity bills. The County has piloted a C-PACER program for commercial buildings, but also needs to pilot a PACE program for residential buildings.

Along with financial tools the Climate Manager must advocate for state legislation that will accelerate the deployment of distributed rooftop solar and storage. This includes extending subsidies for rooftop solar that also address equity. New technologies are available already that may influence the way the state designs subsidies to increase DERs. For example, the continued price drop in battery storage and the deployment of smart inverters will eventually allow buildings with rooftop solar to gain the full benefit of the electricity they produce on site and eliminate the need for net metering policies. As the adoption of these technologies increases, upfront costs will decline. Widespread expansion of DERs not only increases decarbonization of the electric grid, but also creates resilience to climate change, while creating local jobs and reducing the health care costs associated with carbon pollution.

4. Install publicly accessible electric charging stations at all county government facilities and underserved locations. Require EV charging stations at apartment complexes and new commercial and industrial complexes. The largest impediment to widespread adoption of EVs is range anxiety. EVs are often viewed as great for commuting and local trips, but inadequate for longer commutes and occasional longer trips and vacations. As the range of EV batteries approach gasoline-powered vehicles, EV charging stations will need be strategically located along travel corridors and sized to accommodate rapid charging. While many EV owners may charge their EV at home, others will rely on accessible EV charging at their place of work or large parking lots.

The County can lead this transformation by including electric charging at County buildings for both employees and visitors. In addition, county codes for EV charging infrastructure should be included for all new commercial and industrial developments. Codes should also require 240 V circuits in new residential garages so that the homeowner can easily add an EV charger if needed.

5. Implement the Regional Trails Plan as identified in the 2011 Bicycle Pedestrian Plan and 2004 Chain of Trails plan and any subsequent revisions thereto to expand the regional trail network for commuting, recreation, and emissions reduction.

Increasing staff and consultant support, pursuing numerous grant funding opportunities, and allocating significantly more local transportation funds to implement a connected network of trails will create more walking, biking, horseback riding, and other active transportation opportunities to reduce the number of trips of single occupancy vehicles and provide more transportation and recreation options for both rural and urban residents. Such a network that prioritized development of off-road trails could assist school districts in creating safe routes to schools, provide emissions free transportation opportunities for rural residents working in towns, and provide improved access to recreational opportunities and generally connecting communities.

Efforts to create a well-integrated system of trails in Whatcom County have existed since the 1970s, and while some progress has been made, there still remains an enormous amount of work to do. The 2011 Bicycle Pedestrian Plan, created by the Bicycle Pedestrian Advisory Committee, contains planning considerations, implementation recommendations, and policy recommendations that are intended to provide guidance for expanding the active transportation trail network. The Bicycle Pedestrian Advisory Committee maintains a current list of priority projects. Developing the Regional Trail network will require the County to acquire easements, purchase property, work with existing landholders and developer, and re-evaluate County right-of-way planning processes and development regulations to prioritize non-motorized trail system development.

6. Incorporate climate change risk into all aspects of the County Comprehensive plan, from infrastructure to land use to natural systems. Risk assessments for infrastructure are either lacking or based on historical trends. As demonstrated again and again in this climate action plan, historical trends are insufficient for predicting the future risk posed by a changing climate. Well over a decade ago insurance companies started incorporating climate change into their risk assessment and pricing of insurance. FEMA has recently restructured the pricing of its flood insurance to reflect the more frequent and intense storm events.

The County's reports on topics such as natural hazards mitigation and shoreline development can no longer rely on historical data to predict future risk of flooding, sea-level rise, and other climate impacts. We strongly recommend that the current revision of the Comprehensive Plan incorporate climate risk throughout its chapters on Land Use, Housing, Facilities, Utilities, Transportation, Economics, Resource Lands, Recreation and Environment. All of these areas face specific risks associated with climate change, and mitigation and adaptation strategies consistent with the strategies in this plan should be recognized.

7. Prioritize restoration, function and protection of wetlands, riparian areas, headwaters, and other climate resilience areas to improve base flows in streams and rivers, to increase carbon sequestration and storage potential, and to build resilience to climate impacts. Whatcom County must significantly increase its conservation acquisition and protection efforts to ensure ecosystem resilience to climate impacts. The County should pursue acquisition and restoration of lands that build climate resilience and lands that are vulnerable to climate impacts. Local funding sources such as the Conservation Futures Fund should maximize fund recruitment by collecting the maximum allowable levy rate and County staff should pursue multiple matching funds and grant funding sources to increase conservation funds available

This also includes reviewing and revising land use codes to protect major carbon sinks from development, conversion, and other land disturbances. Risk and resilience assessments must be required for all proposed developments that occur within or near to climate impact zones such as shorelines, forests, and floodplains and to ensure that resilience to climate impacts such as sea-level rise, drought, flooding, and wildfire are evaluated. Wetlands, riparian zones, watershed headwaters, shorelines, and other critical areas are also vulnerable to climate impacts and provide resilience to climate impacts. The risk and resilience assessment should include consideration of future climate scenarios that may result in sea-level rise, flooding or wildfires from extreme weather events. The assessment should also show the current carbon sequestration and storage potential and the expected

loss of carbon sequestration and storage potential over the lifespan of the development or up to fifty years in the future.

In addition, more emphasis needs to be placed on identifying key ecosystem services in wetlands. Allowing wetlands to be developed in exchange for restoring a wetland elsewhere should not be viewed as a one-for-one exchange. The assessment needs to catalogue ecosystem services of the wetland to be developed and explain how these important services will be duplicated at the proposed alternate location. Restoring and protecting ecosystem services provided by agricultural lands, forestlands, wetlands and other ecosystem areas should be identified, promoted, and incentivized through property tax assessments, conservation easement acquisition, and other programs that could be part of a broader Natural Resource Marketplace.²⁹⁶

8. Ensure a stable land base for our agricultural economy and promote renewable energy in agricultural areas that can reduce emissions from farms and provide farmers with new income.

A healthy agricultural economy in Whatcom County requires a minimum land base of 100,000 agricultural acres. Zoning codes and development regulations for rural and agricultural lands must be reviewed and revised to ensure low-density development occurs to protect the soil resource and the agricultural community from overdevelopment, non-compatible development, and conversion to non-agricultural uses. Increasing renewable energy projects such as wind and solar will accelerate renewable energy generation in rural areas and provide farmers with a steady income which will also contribute to the protection of agricultural values. The CIAC will review and recommend improvements to the wind energy system code to increase implementation of wind energy projects. Solar developments are very compatible with agricultural buildings and infrastructure and can also complement field management, if done well, further increasing financial benefits and energy-related emissions.

9. Increase funding and staff capacity for the County Conservation Easement Program and develop a carbon credit market. The Conservation Easement Program has been an effective tool protecting over 1,500 acres of mostly agricultural land over the past 20 years. Insufficient staff capacity to recruit new applications and pursue additional grants and funding opportunities has limited the scope and effectiveness of the program. To protect working lands and important ecosystem areas, it is critical that Whatcom County increase the momentum and program efficiency and effectiveness of the Conservation Easement Program to implement the broad protections needed to build resilience to climate impacts

A carbon credit market is needed to incentivize landowners for enhancing carbon sequestration and storage in soils and forests. A 2019 report by the National Academy of Sciences found that regenerative farming practices that enhance soil carbon storage can sequester 250 million tons of CO₂ annually, or about 4% of the country's emissions.²⁹⁷ IHS Markit estimates that the total potential supply of carbon credits in the agricultural sector is greater than 300 million tons CO₂e annually and will keep growing.²⁹⁸ The current soil carbon payments for carbon sequestration average approximately \$30 per acre.

²⁹⁶ Agriculture Watershed Project. <https://sites.google.com/site/wcwatershedag/home>

²⁹⁷ Negative Emissions Technologies and Reliable Sequestration: A Research Agenda, 2019, A consensus study report: <https://www.nap.edu/read/25259/chapter/1>

²⁹⁸ Carbon farming: Opportunities for agriculture and farmer to gain from decarbonization, IHS Markit report, 2021: <https://cdn.ihsmarkit.com/www/pdf/0721/Carbon-Whitepaper-Final.pdf>

Whatcom County should pursue pilot projects with private landowners and for public acquisition projects that can assess carbon sequestration and storage values and develop carbon credits through existing national programmatic frameworks. Carbon credits could contribute as part of a larger Natural Resource Marketplace approach to working with property owners to build resilience to climate impacts and protecting significant carbon stores.

10. Expand a County-hosted public database hub that includes georeferenced environmental measurements that are routinely collected by various organizations in the County. This database hub should store information on natural resources that is routinely collected by different organizations, such as streamflow levels, water quality, soil types and carbon storage, glacial retreat, major vegetation types, and carbon sequestration and storage to name a few. The County needs to institute a standard approach for measuring ecosystem health and start conducting these measurements on important ecosystems to document changes over time. These measurements could include a sub-grouping of sample plots that are used for the National Land Cover Database. The County should hire a small team of summer interns annually to sample designated plots. Understanding these data trends will be instrumental in protecting healthy ecosystems and restoring damaged ecosystems.

Concluding Thoughts

It is an oft-repeated cliché that reports are written in order to gather dust on shelves in government offices. With the present state of the global and local climate crisis, we do not have the luxury of dust-gathering. This report is written in the spirit of both urgency and optimism—we are in a crisis and all of us must act now, involving government, stakeholders, and citizenry. At the same time, we have the knowledge, commitment, and planning to make a difference *for our communities and our environment* before it is too late. Organizing for effective climate action, as outlined in this Section, can give us both the hope and the tools we need to implement those actions and build community resilience to climate impacts throughout Whatcom County.

SECTION 5 - APPENDICES

Appendix A: Technical Reviewers and Public Review Process

Technical Reviewers by Subject Area

We would like to acknowledge the following individuals who provided valuable technical guidance and reviews of the chapters in this Climate Action Plan.

Electricity and Buildings

(lead authors: Cynthia Mitchell, David Hostetler, Ellyn Murphy)

Reviewer	Organization or Technical Area
Hunter Hassig	former CIAC member, PSE Energy Advisor
Imran Sheikh	CIAC member, WWU Asst. Prof. Institute for Energy Studies
Eddy Ury	CIAC member, energy policy
Phil Thompson	CIAC member, retired WWU economics & energy professor
Emily Kubiak	Sustainable Connections & Community Energy Challenge
Rose Lathrop	Sustainable Connections, Buildings
Erin McDade	Architecture 2030
Atul Deshmane	PUD1 Commissioner
Markus Virta	President, WA Solar Energy Industries Assn.
Mark Schofield	Mgr-Community Energy Challenge
Ted Clifton Sr	Clifton View Homes, net zero energy home design and construction
Christine Grant	WWU Adjunct Instructor Energy Policy; PUD1 commissioner
Sarah Vorpahl	Dept of Commerce, State Energy Strategy
Austin Scharff	Dept of Commerce, State Energy Strategy
Rob Ney	Whatcom County Facilities Manager
Ray Kamada	Kamada Science and Design
Deepa Sivarajan	Climate Solutions – WA Policy Mgr

Industry (lead author: Sue Gunn)

Reviewer	Organization of Technical Area
Joel Swisher, PhD	Director, Institute of Energy Studies, WWU
Don Goldberg	Director of Economic Development, Port of Bellingham
Christine Grant	WWU, PUD1 Commissioner
Atul Deshmane	PUD1 Commissioner
Glenn Blackmon, PhD	Manager of Energy Office, WA Dept of Commerce
Michelle Jordon	Institute of Energy Studies, WWU
Ken Dragoon	Director of Hydrogen Division, Obsidian Renewables
Eugene Akiaten	Retired Petroleum Refinery Systems Director
Ray Kamada, PhD	Physicist, Kamada Science and Design
Robert Ruiz, PhD, MBA	President, Ruiz Energy Corporation
Pam Brady	Government Affairs Manager, <i>bp</i>
Elizabeth Davis	Commercial Optimization Superintendent, <i>bp</i>
Courtney Lancaster	Operations Superintendent, <i>bp</i>

James Berburg	Senior Environmental Engineer, <i>bp</i>
Sharon Shewmake, PhD	State Representative, WA 42 nd & WWU Energy Economics
David Hostetler	Engineer, research information & State Energy Strategy
Ellyn Murphy, PhD	CIAC - reviewing

Transportation (lead author: Phil Thompson, Alec Howard)

Reviewer	Organization or Technical Expertise
John Shambaugh	Washington Department of Transportation
Adrienne Hegedus	Port of Bellingham
Carryn Vande Griend	Puget Sound Energy
Daniel Tepper	Whatcom Parks and Recreation Foundation
Tim Wilder	Whatcom Transportation Authority
Kirsten Wert	Whatcom Council of Governments
Lethal Coe & Transportation Technical Advisory Group	Whatcom Council of Governments
Seth Vidana	Climate Manager, City of Bellingham
Chris Comeau	Transportation, City of Bellingham

Waste (lead author: Ellyn Murphy)

Reviewer	Organization or Technical Area
Vicki Thomas*	2019 Community Research Project on Waste
Ali Jensen	Whatcom County staff
Jennifer Hayden	Whatcom County staff
John Wolpers	Whatcom County staff

* A special thank you to Vicki Thomas (LWV) who conducted interviews and wrote the chapter on Waste for the 2019 Community Research Project. Much of the information in this Climate Action Plan originate directly from her work.

Land Use (lead author: Kaylee Galloway)

Reviewer	Organization or Technical Area
Ellyn Murphy	CIAC member, Guidance and big picture
Steve Harrell	CIAC member, Guidance and text editing
Dave Kershner	CIAC member, Land Use lead for Community Research Project Report
Phil Thompson	CIAC member, transportation, and infrastructure sections
Chris Elder	County Staff and CIAC liaison
Cliff Strong	County Staff, Shoreline Management Plan
Matt Aamot	County Staff
Karlee Deatherage	RE Sources, Water and Land Use Policy

Water Resources and Fisheries (lead authors: Chris Elder, Ellyn Murphy, Stevan Harrell)

Reviewer	Organization or Technical Area
Lisa Wilson, G.I. James, Kara Kuhlman, Karl Mueller	Lummi Nation Natural Resources
John Thompson, Cliff Strong	Whatcom County
Kasey Cykler	WA Department of Ecology
Alan Chapman	Whatcom Conservation District Supervisor
Henry Bierlink	Director, Ag Water Board
Analiese Burns	City of Bellingham, Natural Resources
Becky Peterson	Owner, Geneva Consulting
Oliver Grah	Nooksack Indian Tribe
Treva Coe*	CIAC and Nooksack Indian Tribe
Eric Hirst	Whatcom water supply expert; PhD Engineering

*Treva Coe developed the information on government roles as a former member of CIAC.

Agriculture (lead author: Stevan Harrell)

Reviewer	Organization or Technical Area
Henry Bierlink	Washington Raspberry Commission
Nichole Embertson	Whatcom Conservation District
Michael Anderson, DVM	Doctor of Veterinary Medicine
John, Karen, Kate, and Zach Steensma	Steensma Dairy and Creamery
Galen Smith	Coldstream Farms
Krista Rome	Resilient Seeds
Larry Davis	Whatcom Conservation District

Forestry (lead authors: Ellyn Murphy, Chris Elder)

Reviewer	Organization or Technical Area
Chris Hankey, Cory McDonald	Washington DNR
Joshua Fleischmann	Whatcom County Planning Dept
Jenny Coe	Whatcom Conservation District
Chris Elder	Whatcom County Public Works
Wallace Kost	Whatcom County Emergency Services

Ecosystems (lead author: Katherine Kissinger)

Reviewer	Organization or Technical Area
Vicki Jackson	Whatcom County Wildlife Advisory Committee
Stephen Nyman	PhD Herpetologist, Whatcom County Wildlife Advisory Committee
Ginny Broadhurst	CIAC, Director of WWU Salish Sea Institute

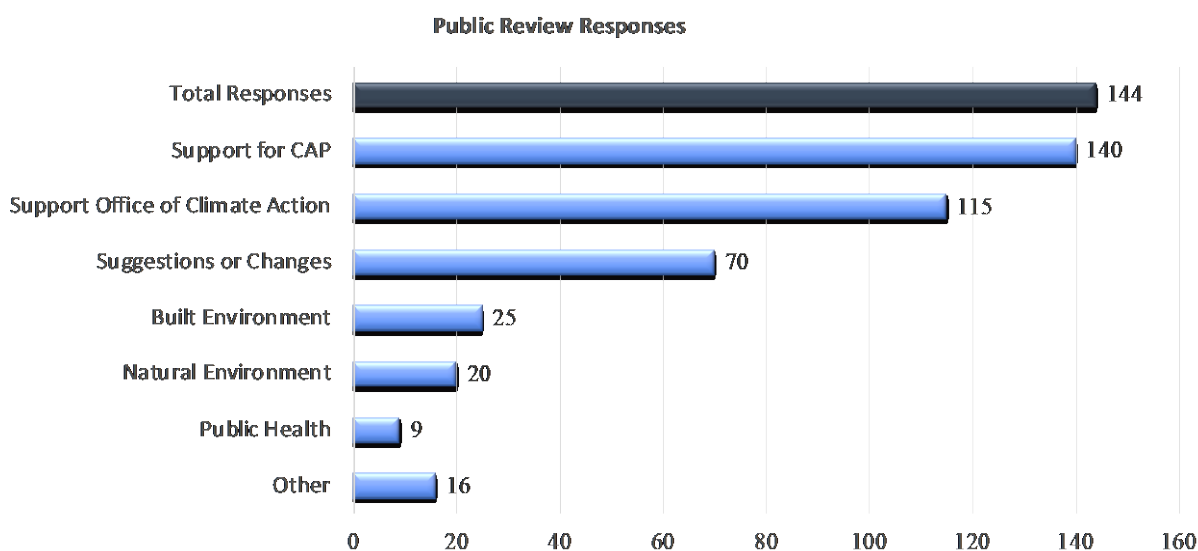
Public Review Process

We would like to thank all those members of the public who responded to our call for public comments in July 2021. The committee received a total of 144 responses during this month-long comment period announced July 1. Of those, 140 commenters expressed support for the Climate Action Plan, while the remaining 4 did not indicate support, one way or the other. There was overwhelming support for the Office of Climate Action (115 respondents). A total of 70 reviewers expressed their personal views or concerns regarding climate change and 22 of these 70 reviewers offered specific actionable changes or additions to the plan.

A CIAC subcommittee processed the comments and referred suggestions or specific changes to appropriate chapter authors. The authors then incorporated comments, where appropriate. After the 30-day review period the CIAC received four additional comments prior to its September 2nd meeting, which were also included. All comments received between July 1st and September 2nd are available as a link on the CIAC webpage.

Five local organizations offered specific comments:

- North Cascades Audubon
- RE Sources for Sustainable Communities
- Whatcom Million Trees Project
- Puget Sound Energy
- City of Bellingham



Appendix B: Glossary

Term	Definition
Adaptation	Altering human behavior and/or systems to reduce or avoid the climate change impacts likely to occur despite any mitigation.
Algae Blooms	A rapid increase or accumulation in the population of algae (typically microscopic) in a water system. Algal blooms may occur in freshwater as well as marine environments.
Anaerobic	In the absence of oxygen. Anaerobic digesters convert organic waste to methane or biogas. In the presence of oxygen, organic decomposition releases CO ₂ instead of CH ₄ .
Blue Hydrogen	Essentially grey hydrogen (made from methane via steam methane reforming) where the emissions from this process are captured and stored in deep geologic formations. Since capture of CO ₂ is not 100%, this process emits ~1.7 kg CO ₂ /kg H ₂ .
Carbon Capture, Sequestration and Utilization	A process by which CO ₂ is captured before release to the atmosphere and either is pumped into deep geologic formations or utilized by another manufacturer. Markets for such large concentrations of CO ₂ are not available at Cherry Point.
Carbon sequestration	
Clean energy	Clean energy does not emit greenhouse gases during generation and includes electricity generated from dams and nuclear plants. Renewable energy is generally used for electricity generated from solar, wind, and can also include hydroelectricity.
ClearPath	A powerful, cloud-based, advanced web application for assessing GHG emissions.
Climate Resilience	The capacity of a system, be it a person, a forest, a city or an economy, to deal with climate change and continue to function.
Conservation Easement Program	Formerly referred to as the Purchase and Development Rights Program. A program that removes sensitive and critical areas from future development by compensating the landowner.
Distributed Energy Resources	A source of energy such as rooftop solar that can continue to operate when the main utility grid fails. Refer to the detailed definition in the discussion of Strategy 4 under Electricity and Buildings.
Ecosystem services	Ecosystem services are the benefits people obtain from ecosystems. These services include the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.
Embedded carbon	The GHG emissions resulting from the manufacturing of a product in terms of CO ₂ equivalent.
Emissions-Intensive Trade-Exposed	Industries that are subject to foreign and out-of-state competition that could force relocation due to the additional expense of a cap-and-trade process.
Estuarine	An estuary is a body of water formed where freshwater from rivers and streams flows into the ocean, mixing with the seawater. Estuaries and the lands surrounding them are places of transition from land to sea, and from freshwater to saltwater.
Federal Energy Regulatory Commission	FERC was established under the Department of Energy Organization Act of 1977. It regulates electric transmission and wholesale sale rates and services principally under Parts II and III of the Federal Power Act.
Greenhouse Gases	Any number of gases that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect. Primary GHGs are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Refrigerants like CFC also contribute to warming.
Green Hydrogen	Created via electrolysis using emissions-free electricity.
Grey Hydrogen	Created from methane using steam methane reforming (SMR), a carbon intensive process creating over 9 kg CO ₂ /kg H ₂). A third of bp's GHG emissions comes from the production of H ₂ . Hydrogen is used in the fuel refining process.

Marginal Abatement Cost	The expense associated with eliminating a unit of pollution.
Methane	A colorless, odorless flammable gas which is the main constituent of natural gas. It is a greenhouse gas that is roughly 30 times more potent as a heat-trapping gas than CO ₂ , but has a shorter, ~10 year, half-life in the atmosphere.
Microgrid	A microgrid is localized electricity source(s) and load(s) that normally operates connected to the grid, but can also operate independent from the utility grid or “island.” Microgrids provide climate or disaster resilience when the utility grid is down.
Mitigation (emissions)	The avoidance, reduction (and when possible, the total elimination) of heat-trapping emissions usually associated with human activity.
Mitigation (wetlands)	Compensatory mitigation is required to replace the loss of wetland and aquatic resource functions in the watershed. Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of wetlands, streams or other aquatic resources for the purpose of offsetting unavoidable adverse impacts.
Mitigation banking	A wetlands mitigation bank is a wetland area that has been restored, established, enhanced or reserved, which is then set aside to compensate for future conversions of wetlands for development activities. Permittees, upon approval of regulatory agencies, can purchase credits from a mitigation bank to meet their requirements for compensatory mitigation. The County allows mitigation banking, but has not set up any local mitigation banks that can sell wetland mitigation credits.
Multi-modal transportation	The movement of cargo or people from origin to destination by several modes of transport.
Net Ecological Gain	A measure of the increase in ecological integrity and health as a result of mitigation or restoration efforts.
Peak Demand	Peak demand is simply the highest electrical power demand that occurs over a specific time period. Peak demand is often reported for daily or annual time periods.
Phase change materials	A material or substance which releases/absorbs sufficient energy at phase transition to provide useful heat/cooling. The phase change may be between liquid and solid or a change in crystalline structure.
Point-Source Emissions	Emissions from industrial manufacturing processes that must be reported to the U.S. EPA if the industry/factory produces annually 25,000 MT CO ₂ e.
Redd	A spawning ground or nest made by a fish, especially a salmon or trout
Red Tide	A brownish-red discoloration of marine waters caused by the presence of enormous numbers of certain microscopic flagellates, especially the dinoflagellates, that often produce a potent neurotoxin that accumulates in the tissues of shellfish, making them poisonous when eaten by humans and other vertebrates.
Resilience	The capacity of a system, be it a person, a forest, a city or an economy, to deal with change and continue to function.
Resilience center or hub	A community-serving facility that can support residents and coordinate resource distribution and services before, during or after a natural or man-made disaster by generating its own electricity and providing food, water, and shelter. During normal times this community center provides a space for neighborhood meetings and create a shared sense of responsibility.
Resource adequacy	A condition in which the region is assured that utilities have acquired sufficient resources to satisfy forecasted future electrical load reliability.
Riparian	Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic

	ecosystems, through which surface and subsurface hydrology connects water bodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality.
Therm	A unit of heat that is equal to 1.054×10^8 joules. Since natural gas meters measure volume and not energy content, a therm factor is used to convert the volume of gas used to its heat equivalent.
Tipping Points	When a small incremental change leads to a sudden collapse of a system.
Transportation Demand Management	Programs and projects that emphasize using existing transportation infrastructure to enhance mobility and system efficiency.
Transit-Oriented Development	Transit-oriented developments create compact, mixed-use communities near transit where people enjoy easy access to jobs and services.
<i>Vibrio</i>	A genus of motile bacteria that often cause gastrointestinal diseases like cholera.
Virtual Net Metering	An accounting system that automatically provides credit on an individual's electricity bill based on the portion of solar production they subscribe to in a solar installation (regardless of the location or ownership of the solar installation).
Vulnerability assessment	Often used to describe the potential (adverse) effects of climate change on ecosystems, infrastructure, economic sectors, social groups, communities, and regions. Vulnerability is the degree to which a system is susceptible to and unable to cope with the adverse effects of climate change. It often includes an assessment of the sensitivity of the system, its exposure, and its adaptive capacity.
Wetland	Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
Wildland Urban Interface	A zone where structures and other human development intermix with undeveloped wildlands or vegetative fuels.

Appendix C: Demonstration Projects and Funding for Electricity and Buildings

In the race to reduce GHG emissions in half by 2030, new innovations will be required that can be deployed later this decade. They continue to build on current best practices and on the latest science and engineering breakthroughs. But because they are new, many of them have not been proven at large scale. Rather than wait for large-scale demonstrations that we can follow, we need to take the lead and implement the most important examples in these strategies as small demonstration projects that will provide local experience, public acceptance, and make it easier to scale-up rapidly in the future to meet our GHG targets. To wait for others to lead on all things will make it unlikely to meet our targets.

Whatcom County leadership will need to continuously evaluate the potential value of an evolving list of example projects against the CAP's recommended strategies. The list below is just a starting point. All projects start as a business value proposition or concept that is evaluated against available resources (e.g., time, funding, staffing, collaborators). The most important and promising projects then develop a detailed project plan for formal review. If the plan is approved, then it is executed. If the value proposition is not sufficient, then business conditions can be monitored for new future developments.

Grid flexibility is the core to resilience and to the deep decarbonization needed to meet our targets.²⁹⁹ Buildings become grid assets by upgrading to energy saving appliances that can be managed individually or together in groups for much greater impact.

We identified three projects that were key to getting started: 1) an electrification prequalification project, 2) a solar/battery microgrid project, and 3) a resilience hub project. These example projects are designed to understand and demonstrate the potential for reducing GHG emissions. These projects also kick start strategies 3 and 5 to electrify existing homes, farms, and buildings, strategy 4 to add DERs throughout the community in an equitable manner, and strategy 2 to create resilience hubs that are self-sustaining during emergencies, but also provide low- and middle-income residents with low-cost renewable energy on a daily basis.

Additional examples to consider are:

Community Solar – The purpose is to enable customers without solar panels to buy whole or a portion of a solar panel available elsewhere on the grid and to credit their generation of electricity on their utility bill. Community solar is critical to equity-centered climate resilience by allowing those without access to clean energy (e.g., renters or owners without good solar exposure), and subsidizing lower income customers. There are many solar-exposed roofs throughout the local community capable of hosting community solar panels that would provide local resilience, better equity, and local investments and jobs – instead of funding utility-scale renewables elsewhere. The existing financial structure for community solar projects in Washington State makes participation an uneconomical investment, but that could be changed by state legislation and/or rulemaking to create a viable community solar program with Virtual Net Metering (VNM). With VNM, ratepayers that participate in community solar would be credited a fair price per kWh for their share of power production which is deducted from their home or apartment utility bill, just as net metering currently works for rooftop solar PV installations on owner-occupied residences. With the intent to make community solar programs functional, fair and

²⁹⁹ Grid Modernization Implications for WA State Energy Strategy, Carl Imhoff, PNNL, October 9, 2020.

rewarding for participants in Washington State, the County should support legislation that promotes community solar and VNM.

Water Heater Demand Response (DR) – The purpose is to shift water heating away from peak times by heating water earlier for use when needed. All new electric water heaters in Washington are required to have built-in demand response capability. Thus, a utility only needs to define policies for recruiting customers into a demand response program, and begin a demonstration project, that can scale up over time. This should receive high priority, especially as part of the electrification incentive process. With sufficient customer participation, new natural gas peaking plants can be avoided.

HVAC DR – The purpose is to shift building heating and cooling away from peak times by adjusting thermostats in anticipation of customer needs. For example, Consumers Energy in the state of Michigan is giving away 100,000 free smart thermostats in exchange for customer participation in their demand response program. Smart thermostats connect to the internet and allows the customer/owner or utility to remotely adjust space heating or cooling during extreme events. The results of this demonstration will be used to guide similar efforts to decarbonize the state’s energy supply.³⁰⁰ This should receive high priority, especially as part of the electrification incentive process. With sufficient customer participation, new natural gas peaking plants can be avoided.

Solar + Battery + EV – The purpose is to manage for 1) maximum energy storage for backup during outages (e.g., a battery), 2) peak shifting (e.g., storing solar energy for evening), or 3) responding to utility signals (e.g., time of use pricing) according to the **customer-configured** preferences. To emphasize, the customer decides and can change, the operating configuration at any time. This is made possible by new “microgrid” products available from Tesla, EnPhase Energy, and others in response to customer needs in California and elsewhere. Microgrids are a sort of building block for incremental grid modernization. In a simple sense, any electrical system that can “island” off the main grid is a microgrid or a semi-independent grid of its own. With the right equipment and software, a microgrid can coordinate DERs within its group, maximizing local resources while ensuring that enough power is drawn from the larger grid to keep supply and demand matched. Small residential microgrids typically “island” only when the main grid loses power and reconnect when power returns.³⁰¹ Wildfires in Australia and California have driven demand for these products, but the multifunction capability will improve, and costs will decline— *making them broadly available for modernizing the grid and providing resilience.*

County Services Hub – Similar to Snohomish PUD’s Arlington Microgrid, provide a solar PV array, battery storage, and electric vehicle charging for the new Northwest County Services buildings to add renewable energy, resilience, and community solar services. This a simple resilience hub focused on these county buildings (Public Works and Planning Departments).

Battery Storage DR – The purpose is three-fold in the case of Green Mountain Power in Vermont, whose demonstration project is being watched closely. The demonstration manages battery charging in homes to shave peaks, to provide emergency back up in outages, and to test the value of “transactive energy” enabled by the energy management module. This program will show what distributed energy resources

³⁰⁰ Free Google Nest thermostats available for Consumers Energy customer, posted May 19, 2020 on Michigan Live; <https://www.mlive.com/news/2020/05/free-google-nest-thermostats-available-for-consumers-energy-customers.html>

³⁰¹ Wildfires and blackouts mean Californians need solar panels and microgrids, by David Roberts, Oct 28, 2019, *Vox.com*.

are worth in customer-to-customer transactions (as opposed to utility-to-customer transactions)³⁰² A recent Federal Energy Regulatory Commission (FERC) Order 2222 removes obstacles to wide scale deployment of DERs on the grid, which could facilitate customer to customer interactions according to Richard Brooks of Energy Central.³⁰³ In the future when high-performance EV batteries are updated, the old batteries will be repurposed at low cost for less demanding applications like home backup, and rooftop solar. *All of this potential from a simple battery in a building, which can then be leveraged together in groups for even greater impact (see Virtual Power Plant).*

Virtual Power Plant – Large aggregations of DERs called Virtual Power Plants or VPPs are growing rapidly. Modern VPPs are a decentralized network of DERs, that can be combined and controlled at a central control point, often a cloud-based software platform operated for the utility by a third party. These DERs often remain independent in their ownership, but their operation can be managed under certain conditions in exchange for a subsidy or rebate to the owner. Tesla has been a leader in large-scale VPPs with its Hornsdale Australia battery installation that replaced a fossil-based peaking plant. Portland General Electric (PGE) in Oregon is assembling a 4-megawatt VPP by placing battery storage in over 500 homes.³⁰⁴ PGE offers households a rebate on the battery purchase or are paid \$20 or \$40 per month for use of households that have existing batteries. This PGE project will demonstrate the value of managing peak load, provide emergency backup, and address social equity, while modernizing their smart grid.³⁰⁵

Campuses – The purposes of campus microgrids go beyond residential microgrids described earlier. Campus microgrids remain “separate but connected” to the main grid all the time. Campuses of various public and private organizations increasingly do this to modernize their operations and achieve organizational goals. The private utility Avista is currently developing a transactive energy microgrid in Spokane that will optimize energy use in “a hub building and five buildings of about 160,000 square feet each that will have net zero energy impact,” Avista’s Curtis Kirkeby said.³⁰⁶ The Department of Energy’s Pacific Northwest National Laboratory (PNNL) campus in Richland launched its Clean Energy and Transactive Campus in 2015, leading the way for innovations in distributed devices and control systems that more efficiently and cost-effectively manage DER and building energy usage.³⁰⁷ The PNNL campus is similar in size to a small university campus. Both Avista and PNNL microgrids were supported by the Washington state Clean Energy Fund, in order to lead the way on grid modernization in the state.

³⁰² Green Mountain Power’s pioneering steps in transactive energy raise big questions about DER’s value; The Vermont utility’s program will show what distributed energy resources are worth in customer-to-customer transactions; Utility Dive, Herman Trabish, March 4, 2020.

³⁰³ My review of FERC Order 2222, Energy Central, Sep 20, 2020; <https://energycentral.com/c/ec/my-review-ferc-order-2222>

³⁰⁴ “PGE program will transform hundreds of homes into a virtual power plant” 4 MW pilot to launch this fall. Each home 12-16 kWh of batteries. <https://www.portlandgeneral.com/our-company/news-room/news-releases/2020/07-01-2020-pge-program-will-transform-hundreds-of-homes-into-a-virtual-power-pl>

³⁰⁵ PGE Energy storage program - <https://www.portlandgeneral.com/our-company/energy-strategy/resource-planning/energy-storage-very> good resource. See 5-part battery testing strategy: microgrid, substation, large solar + battery, residential VPP, and large-scale transmission-connected storage device.

³⁰⁶ Microgrid of the future emerges in Washington as Avista preps transactive DER project, by Robert Walton, UtilityDive, July 15, 2020. <https://www.utilitydive.com/news/microgrid-of-the-future-emerges-in-washington-as-avista-preps-transactive-d/581644/>

³⁰⁷ Clean Energy and Transactive Campus – Demand-side transactive controls at scale. <https://www.pnnl.gov/projects/clean-energy-and-transactive-campus>

Potential Funding Opportunities for Electricity and Building Projects

Throughout [Electricity and Buildings](#), CIAC recommends that the County facilitate demonstration projects that focus on key approaches to modernizing the electric grid and integrating buildings as grid assets with the ultimate goal of creating resilience. With a new federal emphasis on modernizing our infrastructure and increasing resilience, funding and grant opportunities over the next few years promises to be significant. Therefore, it is important for County staff to develop a list of priority projects to begin implementation of the Climate Action Plan. These projects should be mapped against possible funding sources, starting with the Washington Clean Energy Fund (administered by the Department of Commerce) and the anticipated American Jobs Act. If passed, the American Jobs Act will most likely be administered over several federal departments, including Energy, Transportation, Commerce, Agriculture, to name a few.

This Washington State Department of Commerce: is the place to start as Washington's Energy Strategy is implemented through information, resources and funding provided through this website. Expect these pages to update with the most recent strategy and legislative mandates soon. Covers the Clean Energy Fund; Energy Efficiency and Solar Grants; Forest Products financial Assistance Program; Home Rehabilitation Loan Program; and a map of locations for [Energy Grants and Loans Programs](#).

[The Clean Energy Fund](#) description and reports of past awards also describes the status and updates of the following Commerce grant programs:

Grid Modernization Program

Commerce Grant Program	Description
Grid Modernization Program	This program is for public and private electrical utilities serving Washington customers. Utilities can partner with other public and private sector research organizations and businesses to apply for funding.
Electrification of Transportation Systems	This program provides grants to Washington State local governments and retail electric utilities for charging infrastructure.
Research, Development and Demonstration	This program provides a match for federal and non-state funds for strategic research and development projects on new and emerging technologies.
Wood Energy for Public Facilities	This program emphasizes projects that replace fossil energy sources with wood energy products (e.g., pellets, chips, cordwood, and other forms of forestry management debris) to meet the thermal and/or electrical needs of public facilities.
Grants to Nonprofit Lenders	Revolving Loan Fund grants show that a modest public investment can promote private investment. This drives economic activity and jobs for Washingtonians and helps our state lead the nation in energy efficiency.
Solar Deployment	The Solar Deployment program supports the development of projects that deliver environmental and economic benefit to Washington communities.
Dairy Digester Enhancement	The 2019 capital budget provides grants that enhance the viability of dairy digester projects, including bioenergy, improved energy efficiency and advanced nutrient recovery systems. Grants will include one project east and one west of the Cascades.

Commerce Clean Technology Sector

The Washington State clean technology sector is working with a variety of industries to provide technology and related production processes. These will improve their environmental and business performance. Our top priority is to create an economic understanding across the state, where innovation and entrepreneurship can thrive and create well-paying jobs. Website: <https://www.commerce.wa.gov/growing-the-economy/key-sectors/clean-technology/>

American Jobs Plan (*Federal Funding plan will be voted on sometime in the summer 2021; versions of this plan have significant funding for building climate resilience in communities*)

Amazon Climate Fund

The Climate Pledge Fund ³⁰⁸ is a corporate venture capital fund that invests in companies that can accelerate Amazon's path to meeting The Climate Pledge. The scope is global and will consider investments in companies developing products or services that reduce carbon emissions and help preserve the natural world.

Sector focus areas include:

- Transportation and Logistics
- Energy use, storage, and management
- Manufacturing and materials
- Circular economy
- Food and agriculture
- Renewable energy technology

Gates Related Funds

Breakthrough Energy Ventures³⁰⁹ – This fund basically follows the outlines of Bill Gates recent book and describes the problems and possible solutions under evaluation now.

³⁰⁸ <https://www.theclimatepledge.com/us/en/about/the-climate-pledge-fund.html>

³⁰⁹ <https://www.breakthroughenergy.org/>

Appendix D: Additional Information on Transportation

Recommended actions for Transportation Strategy 1: Create behavior change by promoting alternatives to SOV transportation

Action 1.1: Implement the Regional Trails Plan as identified in the 2011 Bicycle Pedestrian Plan and 2004 Chain of Trails plan and any subsequent revisions thereto to expand the regional trail network for commuting and recreation.

A connected network of trails creates more walking, biking, horseback riding, and other active transportation opportunities to reduce the number of trips of single occupancy vehicles and provide more recreation options. Such a network can also assist school districts in creating safe routes to schools (see Action 1.2 below), and planning should incorporate that consideration. Efforts to create a well-integrated system of trails in Whatcom County have existed since the 1970s, and while good progress has been made, there remains much work to do. The 2011 Bicycle Pedestrian Plan, created by the Bicycle Pedestrian Advisory Committee, contains planning considerations, implementation recommendations, and policy recommendations that are intended to provide guidance for expanding the active transportation trail network. The Bicycle Pedestrian Advisory Committee maintains a current list of priority projects. Expanding a trail network will require the County to acquire easements, purchase property, and work with the existing landholders and developers.

Action 1.2 Create safe active transportation routes to schools where they don't already exist, enhance existing active transportation routes to schools, and explore the electrification of school bus fleets.

Work with school districts to ensure that school property renovations support walking, biking, carpooling, and bussing to schools and that all school districts in Whatcom County maintain their Walk Route Plans, to be updated every two years. The Washington State Department of Transportation maintains Walk Route Plans and other resources, such as the Safe Routes to School Grant program, which provides funding to communities for project development. Work with school districts to ensure new schools are constructed in areas already well served by the multimodal transportation network. Consider implementing school crossing guard programs. Creating safe active transportation options for youth can also promote positive behavior and health outcomes. Messaging to students and their parents about available alternatives and their benefits will also play an important role.

We recognize that rural settings create challenges to active student transportation that aren't present in urban areas, but those challenges can be lessened if student transportation is included in County trail planning efforts (see action 1.1 above). We also recognize that school transportation systems are the responsibility of school districts, not county government, and that high costs present a formidable barrier to school bus fleet electrification, but we note that new ownership models (e.g., leasing rather than purchase) are being tested to reduce those barriers.³¹⁰

Action 1.3: Enhance bicycle and pedestrian commuting infrastructure, including storage/parking and dedicated off-road non-motorized trails.

Improvements to active transportation infrastructure can make such transportation modes safer, faster, more reliable, and more accessible. There are many potential infrastructure upgrades that would encourage increased use of active transportation. Some potential improvements can be found in the

³¹⁰ See, for example, Mufon, S., and S. Kaplan, "A lesson in electric school buses," Washington Post, Feb. 24, 2021. <https://www.washingtonpost.com/climate-solutions/2021/02/24/climate-solutions-electric-schoolbuses/>

2011 Bicycle Pedestrian Plan, including increasing safe and secure bicycle parking infrastructure at transportation nodes and residential, commercial, and public facilities; creating protective physical barriers for active mobility infrastructure; and installing adequate lighting, on-road paint, signage, and rain protection.

It is important to note that there is a distinction between Actions 1.1 and 1.3. Specifically, on-road active mobility infrastructure improvements, such as bicycle lanes, are less accessible and safe than trails and paths that are segregated from roads. Past efforts to grow the County trail system referred to in item 1.1 above included both off-road and on-road components, which should also account for a significant part of all relevant County transportation and parkland planning.

Action 1.4: Work with WTA to improve transit service through network expansion, changes in transit schedules, and improved connections between transit routes and with other transport modes.

Important factors that affect the willingness to use public transit are convenience and efficiency, its proximity to riders and any additional time required to use public transit as compared to SOV travel. WTA's goal is to increase public transit's share of work commuting from 5% to 9%³¹¹. The County should work with WTA to support and expedite these efforts, including the construction of park and ride lots and the extension of trails to public transit access points. Employers would also have an interest in such improvements, as many businesses and their employees are not located conveniently near current WTA routes.

Action 1.5: Adopt any available state programs and fund local efforts to provide means-tested transit subsidies, such as low or no cost passes, to increase accessibility to transit.

Reducing or eliminating the financial costs of riding transit can increase ridership. The outcomes can be improved when targeting specific communities, such as low-income, disabled, youth, seniors, or underserved communities. Cost reduction programs, such as Regional Reduced Fare Permits for seniors and riders with disabilities, exist and could be expanded to include more people. State assistance in this area is recommended in the State Energy Strategy³¹².

Action 1.6: Support existing and develop new education and outreach programs to promote alternative transportation options.

Support and expand existing education and outreach programs that promote community mobility or active transportation. Work with other community partners who have shared interests like Whatcom County Public Health to promote active transportation and improve community health outcomes through transportation choices. Use targeting marketing in concurrence with new projects to increase community awareness of new projects and routes. The County could also partner with ridesharing apps as pandemic concerns about social distancing subside; this would be useful for not only trips to school and work, but also for shopping and leisure.

³¹¹ WTA 2040 Long-Range Transit Plan, <https://www.wta2040.org/>

³¹² Washington State Department of Commerce, 2021, 2021 State Energy Strategy, p. 58.
<https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

Action 1.7: Work with employers to find programs and incentives to support multimodal commuting.

Continue to offer transportation advising to employers, with an emphasis on large employers. Large employers in particular can change employee commute behavior by offering rebates for transit expenses, bike or walk to work incentives, secure bike parking, e-bike charging, flexible daily charging for parking, or employee showers within each building. For example, The Community Food Co-op currently offers employees a rebate on transit and bicycle costs.

Action 1.8: Expand telecommuting and flextime scheduling for county employees and encourage other employers to do the same.

Whenever possible, employers should develop telecommuting and flextime abilities for their employees. Telecommuting refers to the ability of employees to perform regular job duties remotely, or away from their primary business location. Flextime refers to a work schedule that permits employees to work hours that are alternative to the 8am to 5pm standard work schedule. In addition to reducing transportation demand, allowing employees the flexibility to choose their schedule and work remotely can assist individual needs, such as family needs, and increase employee morale and productivity while reducing tardiness and absence. County adoption of these approaches can serve as an example for other employers in the county and can inform them of the possible benefits. The community has gained very helpful insights into opportunities for and the workability of telecommuting during the COVID-19 pandemic. The County Human Resources Department would have the primary responsibility for leading this effort for County employees and the proposed Office of Climate Action recommended in Section 4 of this report would carry out communications with other employers.

Action 1.9: Expand broadband internet countywide.

Expanding broadband internet countywide should be done prior to or in conjunction with action 1.7. In addition to reducing commuting needs, providing broadband internet countywide can also increase quality of life to underserved or more distant, rural areas by allowing access to online services. There is an existing community interest in expanding broadband internet countywide, and the pandemic has strengthened that interest.

Private internet service companies typically provide adequate service in denser urban settings but find less dense rural areas less lucrative, resulting in unserved or underserved areas where publicly owned providers should step in. Funding such public efforts is an important barrier to rural broadband extension. While state funding is available for counties classified as rural, Whatcom County is not in that category. Some federal infrastructure money that could be used for broadband projects has been made available to states through the recently enacted American Rescue Plan, and there is also some pending federal legislation to help fund the expansion of broadband access.

In its latest strategic plan³¹³ Whatcom PUD No. 1 identifies, as one of its 2019 New Initiatives, “Working with the Port of Bellingham to advance analysis of need for development of broadband services in the county to determine future role of the PUD in infrastructure (fiber) development.” The County should support any such community efforts to provide publicly owned broadband access, both financially and

³¹³ Public Utility District No. 1 of Whatcom County, “Strategic Plan 2025,” p. 8 https://www.pudwhatcom.org/wp-content/uploads/2019/04/Whatcom-County-PUD-No.-1-Strategic-Plan_2025.pdf

by taking any regulatory actions necessary to assist broadband expansion. It should also seek any available federal or state funding available to counties.

Action 1.10: Explore with the Port of Bellingham the feasibility of building multi-modal transfer stations to move freight from trucks to rail.

The County currently relies on medium- and heavy-duty freight trucks for transporting goods. Because the technology for zero and low emission freight trucks is undeveloped or still being developed, the County should consider a shift to rail to offset freight emissions. Increasing the use of rail for transportations of goods will require a broader, more regional effort that includes potential coordination with the State, British Columbia, or the entire West Coast, in addition to the private freight rail carriers. Because of the regional nature of this option, it is likely that the most likely role for the County (through the proposed Office of Climate Action)

Action 1.11: Foster increased rail transportation for the public and industries.

Increasing the use of rail for transportations of goods or people will require a regional effort. The County should work with community partners and stakeholders to explore the benefits and opportunities of increased rail transportation in Whatcom County and explore/consider opportunities to develop passenger rail service transportation within Whatcom County. For example, efforts are underway to add an Amtrak station in Blaine, thus improving rail connectivity along the I-5 corridor.

Action 1.12: Conduct brief biannual surveys of County employee commuting behavior to inform programs to encourage alternatives to SOV commuting

An understanding of the commuting behavior of County employees will help in the creation of programs (e.g, reduced price transit passes, carpooling arrangements) designed to reduce employee commuting VMT.

Recommended actions for Transportation Strategy 2: Promote increased utilization of electric, hybrid, and alternative fuel vehicles.

Action 2.1: Implement a countywide EV promotions program through education and outreach.

One important barrier to more rapid adoption of EVs, which can be minimized through education and outreach efforts, is a basic lack of understanding on the part of consumers. These efforts should be overseen in Whatcom County by the Office of Climate Action recommended in Section 4 of this report. For example, Puget Sound Energy (PSE) has shown a willingness (in official filings with the Washington Utilities and Transportation Commission in 2018) to assist in those efforts, and County EV education and outreach should take advantage of that. In addition, the recently issued State Energy Strategy recommends that the Legislature provide resources for these efforts. Whatcom County Code Chapter 2.126, which established the Climate Impact Action Committee, states (2.126.030H) that one of CIAC's functions is to "Serve as a conduit for public education, information exchange, and engagement in support of Whatcom County's climate change mitigation and impact prevention, adaptation, and preparation goals. This action recommendation would therefore be carried out by CIAC in conjunction with the proposed Office for Climate Action and any other relevant county departments.

Action 2.2: Offer pooled purchasing of EVs to reduce the upfront cost of such vehicles for Whatcom County residents.

Pooled purchases reduce the upfront cost of EVs to consumers. While there is already a federal tax credit of up to \$7,500 for EV purchases, pooled purchasing can provide an additional incentive. This would be even more important for buyers in lower income brackets whose income tax liability would not be high enough to allow for the full \$7,500 credit. Whatcom County government may be able to use its buying power to initiate and maintain such a program, which would be established and coordinated through the Office of Climate Action recommended in Section 4 of this report.

Action 2.3: Work with local trade and technical schools, unions, and businesses to create an EV workforce pipeline.

More widespread adoption of EVs will require a larger skilled workforce to sell and service EVs as well as maintaining the publicly or privately owned charging infrastructure. For example, the Whatcom Transportation Authority's 2017 Six-year Strategic Plan identifies the need for a maintenance personnel training program as WTA adds electric buses to its fleet. In Skagit County the Northwest Washington Electrical Industry Joint Apprenticeship training center in Mount Vernon has a program for installing EV charging stations. Bellingham Technical College or Whatcom Community College could develop a similar training program. The proposed Office of Climate Action can help coordinate these efforts.

Action 2.4: Install electric charging stations in strategic locations, prioritizing underserved locations.

What has been termed “range anxiety” is the concern of existing and potential EV owners regarding when and where to charge their vehicles. Initial adopters typically are single-family homeowners who for the most part charge their vehicles at home, but there will be an increased need for public charging stations, especially in underserved areas. The 2020 State Energy Strategy recommends state funding of a charging infrastructure needs assessment.

PSE has four pilot programs in place to help increase charging capabilities: single family, multi-family, public charging, and for employers. There are also privately owned public stations in Whatcom County. See [PlugIn America](#) for a locator map of these stations.

Level 1 charging is the simplest, but also the slowest (2-5 miles of range per hour of charge time), requiring only a standard 120V grounded outlet at 8 or 12 amps, and is the most commonly used in single family homes. Level 2 charging requires 240V service but is at least twice as fast as Level 1 (10-25 miles of range per hour of charge time); these can be installed in single family homes but are more common at workplaces, apartment buildings, and public areas. Finally, Level 3 or DC fast charging will provide a full charge in approximately one hour. This requires more specialized equipment and is commonly found in public areas and along heavy traffic corridors such as interstate highways. Note that “public” does not necessarily mean “free”; various pricing structures are used, including subscription and pay-by-the-hour.

Although private charging companies are becoming more common, they typically do not place chargers in low use areas, sometimes called “nonattainment” areas. Such areas will have to be served in other ways, such as through publicly funded chargers. Recently enacted Washington State legislation (HB 1091) regarding a Low Carbon Fuel Standard provides for funding by electric utilities of chargers in these

underserved areas. In addition, PSE is running a “Multifamily Charging” pilot at four multifamily housing sites in Whatcom County.

Coordinated efforts to provide charging capabilities could be overseen by the proposed Office of Climate Action, which could also assess the extent to which the County should be involved in the provision of charging facilities. One concrete action that county government could take is an adjustment of building codes to require new (and perhaps older) buildings to have electrical systems capable of handling the increased electrical demands resulting from EV charging activities. If necessary, zoning regulations should be changed to allow easier placement of charging stations. Building codes should be revised to require or strongly encourage the inclusion of or, at the very least, the electrical system capability for charging stations in multifamily residential buildings

Action 2.5: Require or provide financial incentives for major employers to provide onsite charging stations for employee EVs.

While some employers are already doing this, possible county government actions in this area include requiring by law employers of a certain size to provide charging facilities or offering tax advantages to employers who do so. PSE has a Workplace Charging pilot underway with Western Washington University and the Whatcom County Civic Center.

Action 2.6: Work with WTA and municipalities in the county to create infrastructure for electric buses.

Whatcom Transportation Authority's 2017 Six-year Strategic Plan, Appendix C, presents an analysis of the possibilities and challenges associated with public transit electrification, including the need for charging stations in appropriate locations. WTA expects delivery of its first two electric buses in early 2021. A major impediment to rapid electrification is the high initial cost of the buses (\$400,000 higher than conventional diesel), but new ownership models being used for school bus fleets might also be applied to public transit fleets (see the discussion of Action 1.2 above). Whatcom County's role could include assistance in finding such locations and in helping WTA fund the installation of the chargers, which could be done through the proposed Office of Climate Action.

Action 2.7: Develop, in coordination with state efforts, an infrastructure plan for H2 fuel distribution and other fuel mix options.

While EVs are clearly the immediate future of non-fossil fueled vehicles, technologies for fuel cell vehicles (FCVs) that use hydrogen as a fuel are showing considerable promise. An important issue confronting this technology (similar to charging stations for EVs) is providing an adequate fueling station network. This would eventually require a new hydrogen pipe system connecting fueling stations. Whatcom County's immediate role in this process would be to cooperate with state efforts outlined in the 2020 State Energy Strategy to undertake a comprehensive FCV fueling infrastructure needs assessment, and such County efforts would be overseen by the proposed Office of Climate Action.

Action 2.8: Exempt e-bikes and other e-ride devices from local sales taxes.

While the portion of an e-bike's final sales price accounted for by local sales taxes is small, so is the proportion of county tax revenues. Exempting such sales from these taxes would be a low-cost way to signal the County's support for these vehicles and accommodates a proposed action in the State Energy

Strategy (p. 58) for local governments to “explore options for providing incentives for e-bikes and other electric transportation devices.” This exemption could be modelled after [HB 1330](#).

Recommended actions for Transportation Strategy 3: Improve county vehicle fleet utilization while transitioning to non-fossil fueled alternatives and reducing GHG emissions associated with county projects.

Action 3.1: The County should undertake an evaluation of its on-road vehicle fleet to achieve maximum GHG reductions. Considerations should include moving away from fossil fuels to electricity (EVs) and other clean fuels, the matching of vehicle numbers and types to their uses, and the potential for vehicle sharing among county departments. This would be best accomplished by funding a study by an outside expert consultant.

Although total emissions from all County government operations amount to just over 0.001% of the overall total for Whatcom County, it is important for county government to demonstrate its commitment to GHG emission reductions and model ways in which other organizations and the general public can achieve such reductions. While the County vehicle fleet accounts for only a third or so of county government operations emissions, and those fleet emissions fell by roughly 20% between 2000 and 2017, the county fleet can serve as a very visible example of ways in which emissions can be reduced by the broader Whatcom community. (Emissions data are taken from the recently completed Whatcom County Greenhouse Gas Inventory Report.)

The most obvious way to reduce fleet emissions is to convert the fleet to EVs and other clean vehicles. The optimal approach to doing so involves first understanding how the fleet is used, and then determining and following the best path to conversion without reducing the benefits of the vehicle fleet. It is likely that the County will have to engage an outside consulting firm with experience in performing such analyses. That analysis would also help to ensure that the fleet composition is optimal. While vehicle sharing may not result in significant emissions reductions, it would reduce the required size of the fleet, thereby decreasing required expenditures.

Action 3.2: Invest in a hybrid or electric technology to replace the Whatcom Chief ferry to Lummi Island.

While the ferry only accounts for 0.05% of Whatcom County transportation GHG emissions, it nevertheless represents 5% of total County operations emissions and over 15% of County vehicular fleet emissions, making it the largest single vehicular emitter in the fleet and the second largest emitting County facility of any kind. Although the Washington State Energy Strategy 314(p. 61) discusses efforts of Washington State Ferries to decarbonize its fleet using hybrid and electric technologies, it makes no specific recommendation regarding funding those activities, nor does it address ferries operated by other units of government. It is especially important to consider a cleaner technology now because the ferry will likely have a long life—the Whatcom Chief is 60 years old—and locking in an old GHG emitting technology for such a long time should be avoided. Adopting a carbon neutral ferry would not only result in lower GHG emissions, but it would also have the additional significant benefit of reducing the local air and water pollution impacts from burning and handling diesel fuel.

³¹⁴ <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

Fortunately, the County is already taking steps in this direction. The Whatcom County 2019-2032 Fourteen Year Ferry Capital Program³¹⁵ quotes from Whatcom County Resolution 2018-026, stating “To approach the goal of a carbon neutral vessel and provide flexibility for future electric conversion and reliability, the design of the vessel shall be a hybrid diesel-electric.” The capital budget shown in the Ferry Capital Program indicates an anticipated \$14.35 million for boat construction; part of this cost would be covered by the recently approved increase in Lummi Island Ferry fares. The Lummi Island Ferry Advisory Committee has stated in a February 2020 resolution that “once funding is in hand and the project can begin, LIFAC recommends that PWD allocate planning resources and create a timeline with milestones for upgrading the vessel to a carbon neutral propulsion system.” This Committee strongly urges the County to follow the LIFAC recommendation.

One challenge to the full electrification of the ferry is increasing electricity transmission and distribution capacity on the Lummi Peninsula or Lummi Island to accommodate higher loads caused by charging the ferry, and, since these technologies are relatively new and still evolving, there is also a potential of reduced reliability and increased maintenance costs. In addressing these issues the County can learn from other nearby ferry systems, such as BC Ferries, Washington State Ferries, and the Guemes Island ferry, which are also in the process of electrification.

Action 3.3: Require end-of-life replacement of County-owned construction equipment using fossil fuels with alternative-fuel or electric equipment and encourage such replacements by private operators.

Most construction equipment currently utilizes diesel fuel. First, the County should explore such replacements for its own equipment inventory and make those replacements when equipment reaches the end of its useful life. Second, the County should engage in outreach to construction companies or other businesses that use fossil-fuel burning equipment to ensure awareness of the options and benefits of alternatives and encourage their adoption. Encouragement could take the form of requiring that all equipment used on work under contract with the County be fueled by electricity or other clean alternative fuels by some future date certain (e.g., 2030).

Action 3.4: Incorporate contractor fuel emission reduction standards into bids and contracts and require reporting of fuel types and quantities used on specific contracted jobs.

Work with the Planning and Development Services Department to modify existing contracts and other documents and implement data collection programs. County Requests for Proposals should require estimates of the amount of fossil fuels that will be used on a project as well as maintaining an actual record of the amount of these fuels used after the project has concluded; such information will improve the accuracy of future GHG inventories. This action will have no direct impact on current emissions, but it has nevertheless been designated a high priority item because it has a relatively low cost, and it sends a signal about potential future requirements.

Action 3.5: Perform diesel exhaust retrofits for county-owned equipment, including filter technology with passive or active cleaning systems.

³¹⁵ Available at <https://www.whatcomcounty.us/DocumentCenter/View/40743/Exhibit-B-2019-2032-Ferry-Capital-Plan-v21-RR-Final>

Cleaning up the exhaust from off-road mechanical equipment would not appreciably reduce CO₂ emissions, but it can reduce other GHG emissions (e.g., NO_x) as well as other types of pollution that cause negative health impacts (e.g., particulates).

Recommended actions for transportation strategy 4: Use County resources to participate in and advocate for inter-governmental efforts to reduce GHG emissions associated with transportation.

Action 4.1: Prioritize recommended actions within this Plan for funding and implementation within the County's 6-year Transportation Improvement Program.

Whatcom County's Transportation Improvement Program (TIP) is a federally mandated plan that lists upcoming transportation and associated funding sources and informs regional long-range transportation planning efforts. The plan reflects the transportation priorities of the County as identified in the Comprehensive Plan. In coordination with an update to the Comprehensive Plan, as recommended in Action 4.3, the Capital Construction projects identified in the TIP should align with the County's climate goals. The next update for the plan is scheduled for 2025.

Action 4.2: Continue to advocate for the advancement of transportation climate goals in the Whatcom Council of Governments Transportation Improvement Programs.

WCOG currently considers climate impacts and prioritizes emissions reductions in its decision-making process. See, for example, the 2016 Comprehensive Plan and Whatcom Mobility 2040. The County should continue to use its position in WCOG to advocate for the prioritization of emissions reductions and climate resilient transportation infrastructure in WCOG's TIP projects. While there are several items in the current TIP that align with other recommended actions in this report, climate change issues (both emission reductions and improved climate resilience) should be emphasized equally with safety issues in formulating future plans.

Action 4.3: Prioritize transportation climate goals when updating the Whatcom County Comprehensive Plan.

Whatcom County's Comprehensive Plan is a guiding document for growth in unincorporated areas in coordination with the new plans of its cities that establishes a framework of goals, policies, and action items for growth planning. The Comprehensive Plan is a tool to be used in decision-making and can also be used to apply for grant funding. In the County's 2016 Comprehensive Plan, Goal 10-D calls for the "Strengthen[ing of] the sustainability of Whatcom County's economy, natural environment, and built communities by responding and adapting to the impacts of climate change." At the same time, the Plan's Goal 6B in [Transportation](#) does not include climate or other environmental goals as clear priorities, while other goals (e.g., 6D, 6E, and 6K) clearly support other recommendations in this report. The 2025 Comprehensive Plan should include an emphasis on the most current emissions reduction goals.

Action 4.4: To the greatest extent possible adopt state Vehicle Miles Traveled (VMT) reduction targets and land use planning approaches designed to reduce VMT and SOV use.

The recently released Washington 2021 State Energy Strategy 316(pp. 53-54 and Appendix C) recommends the establishment of clear VMT reduction targets that can be used to gauge the joint

³¹⁶ <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

progress of multiple activities targeted at reductions in transportation activities. That document states (Appendix C, p. 1): “VMT is a function of the distances between destinations, the availability of transportation options and the availability of technologies and services that could replace travel. Land use patterns are a key factor in demand for transportation. Reducing VMT requires transportation planning and land use planning to be coordinated.” Targets are to be achieved through direct means such as increased use of alternatives to SOV travel as well as through land use decisions such as the adoption of transportation-oriented development (TOD) principles; see Action 4.5 also. One simple example of the intersection of transportation and land use policy is the difficulty of using public transit in rural areas because buses lack safe “turn-around” options and passengers lack safe pedestrian access to the network. The Strategy recognizes that transportation needs are different in urban, suburban, small city, and rural environments and recommends that the state adopt regional VMT targets, perhaps linking state transportation funding to achieving targets for VMT along with other efficiency and equity metrics. Whatcom County should monitor and, if possible, participate in the development of these targets, and once the targets are established, they should be incorporated into all relevant County planning processes.

Action 4.5: Participate in State-led efforts to provide resources and promote interjurisdictional coordination for VMT reduction programs, including Transportation Oriented Development (TOD) and Transportation Demand Management (TDM).

This recommendation is related to Action 4.4 in that it also flows from the Washington 2021 State Energy Strategy (see pp. 54-55). Whatcom County should monitor and participate in these coordination efforts through the Office of Climate Action recommended in Section 4 of this report.

Action 4.6: Obtain available state funding to improve connections between transportation system elements.

Regularly explore and seek funding options for local jurisdictions to improve connections between transportation system elements. The Washington 2021 State Energy Strategy recommends (p. 57) the establishment of a state-level fund to support these efforts. Whatcom County would carry out this recommendation through the Office of Climate Action recommended in Section 4 of this report.

Action 4.7: Participate in any available state programs that would facilitate the transition to hybrid or electric vehicles by ride-share programs like Uber and Lyft.

Regularly explore and participate in any available state programs that would facilitate the transition to hybrid or electric vehicles by ride-share programs like Uber and Lyft. The City of Seattle’s “Clean Transportation Electrification Blueprint” calls for the electrification of ride-sharing vehicles by 2030. Such services are less prominent in Whatcom County than in Seattle, so that electrifying them would not yield significant emissions reductions, but doing so would nevertheless serve as a reinforcement of the push for electric vehicles in the county. Whatcom County would carry out this recommendation through the Office of Climate Action recommended in Section 4 of this report.

Action 4.8: Obtain available state-level funding for local jurisdictions to study freight travel reduction opportunities and plan for infrastructure improvements.

Heavy duty trucks account for only 5% of the vehicles on the road nationally but are responsible for 25% of US transportation emissions³¹⁷. Such vehicles therefore represent important emissions reductions opportunities. The County should explore and seek funding options for local jurisdictions to study freight travel reduction opportunities and plan for infrastructure improvements. The Washington 2021 State Energy Strategy states (p. 60): “State and local governments should have access to sufficient resources, including data, to conduct planning and implement strategies for reducing VMT and greenhouse gas emissions in freight operations.” The Office of Climate Action recommended in Section 4 of this report would be tasked with monitoring and participating in freight VMT and emissions reductions programs established at the state level.

Action 4.9: Evaluate and adopt methods for data collection to understand the impacts of commuting behavior.

Explore data collection tools and methods best practices and regularly collect transportation data that can help inform continued transportation-related decisions. Consider expanding on existing data collection efforts, such as the City of Bellingham’s Bicycle/Pedestrian Survey. Involve other local public/private jurisdictions in data-collection efforts. After establishing a preferred method of data collection, regularly measure and publish relevant data. This recommendation parallels one made in the 2019 Community Research Report produced by the Climate Action Advisory Committee (see Table 2.1, p. 54). This task could be performed by the proposed Climate Action Office or by a contracted outside organization.

Recommended actions for transportation strategy 5: Incorporate climate adaptation considerations into all County transportation planning processes.

Action 5.1: Design new transportation infrastructure to withstand projected future climate impacts based on the intended lifespan of the infrastructure.

Many of the studies discussed in [Water Resources and Fisheries](#) have modeled the impact of climate change on streamflow levels and should be taken into account when designing new infrastructure, such as bridges, that are expected to last for 40-50 years. In addition, the County has supported the development of a detailed map on the projected sea-level rise for Whatcom’s coastal areas. This information needs to be used when designing expensive new infrastructure.

³¹⁷ Walton, Robert, 2021. “As EV economics improve, medium- and heavy-duty trucking may be 'next big frontier' for clean transportation,” *Utility Dive*, March 25, 2021.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-658

File ID:	AB2021-658	Version:	1	Status:	Agenda Ready
File Created:	11/01/2021	Entered by:	AHaines@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Resolution		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: ssidhu@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution approving the naming of the Crisis Stabilization Facility as “The Anne Deacon Center for Hope”

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached Resolution

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Resolution

PROPOSED BY: Executive

INTRODUCTION DATE: _____

RESOLUTION NO. _____

APPROVING THE NAMING OF THE CRISIS STABILIZATION FACILITY AS “THE ANNE DEACON CENTER FOR HOPE”

WHEREAS, Anne Deacon, in her role as Human Services Manager, within the Whatcom County Health Department, played a significant role in the conception, building and operation of the Whatcom County Crisis Stabilization Center that is operated at 2026 Division Street, Bellingham, and

WHEREAS, Ms. Deacon also worked with the legislature to obtain dedicated funding; designed the model and service delivery systems, led the grant-writing process, consulted with the architect and construction companies on everything from the layout to the furniture, and,

WHEREAS, Ms. Deacon also was instrumental in contracting with the providers for services and organizing a multi-disciplinary group including Emergency Medical Services and police agencies to address issues on operationalizing referrals and intakes, and

WHEREAS, Directors of Health and Human Services Departments in our region have agreed and supported naming the facility as a fitting tribute to Ms. Deacon, and

WHEREAS, in the words of poet, Robert Frost, “hope is not finding a way out, but a way through” and the goal of the Crisis Stabilization Center is to help people in crisis find hope by assisting and giving them tools to move through the challenges they experience, and

WHEREAS, the Whatcom County Council concurs and supports this proposal,

NOW THEREFORE BE IT RESOLVED, that the Whatcom County Crisis and Stabilization Center will be named THE ANNE DEACON CENTER FOR HOPE from this day forward and the Council authorizes the placement of signage on the facility and use of this name wherever the Crisis Stabilization Center is mentioned.

APPROVED this _____ day of _____, 2021

WHATCOM COUNTY COUNCIL

ATTEST:

WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis,
Clerk of the Council

Barry Buchanan,
Council Chair

APPROVED AS TO FORM:

Civil Deputy Prosecutor



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-629

File ID:	AB2021-629	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	SMildner@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Executive Appointment		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: smildner@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request confirmation of the County Executive's appointments of Brian Hunter and Prakash Sundaresan to the Point Roberts Community Advisory Committee

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached applications

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Hunter Application, Sundaresan Application, Committee Roster



Application for Appointment to Whatcom County Boards and Commissions

Public Statement

THIS IS A PUBLIC DOCUMENT: As a candidate for a public board or commission, the information provided will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.

Title	Field not completed.
First Name	Brian
Last Name	Hunter
Today's Date	6/26/2021
Street Address	134 Monte Drive
City	Point Roberts
Zip	98281
Do you live in & are you registered to vote in Whatcom County?	Yes
Do you have a different mailing address?	Field not completed.
Primary Telephone	(360)945-1196
Secondary Telephone	Field not completed.
Email Address	<u>Zygopteraehukai@gmail.com</u>
1. Name of Board or Committee	Point Roberts Community Advisory Committee
2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?	Yes
3. Which Council district do you live in?	District 5
4. Are you a US citizen?	Yes
5. Are you registered to vote in Whatcom County?	Yes

6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county?

No

7. Have you ever been a member of this Board/Commission?

No

8. Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County?

No

You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions

Field not completed.

9. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education

Please see previous e mail to County Executive

10. Please describe why you're interested in serving on this board or commission

Having been elected charter review commissioner, and couple planning commission appointments in State understand necessity of general experience over special interests.

References (please include daytime telephone number):

None local.

Signature of applicant:

Brian Hunter

Place Signed / Submitted

Point Roberts, WA

Suzanne Mildner

From: brian hunter <zygopteraehukai@gmail.com>
Sent: Friday, June 25, 2021 5:16 PM
To: Satpal Sidhu
Cc: annelle.norman@gmail.com; Sharon Hunter
Subject: Vacant at large positions Point Roberts CAC

Dear Mr. Satpal;

Please consider me for appointment to the PRCAC:

Brian Hunter
134 Monte Drive
Point Roberts, WA 98281
(360)945-1196

Elected Experience:
Charter Review Commissioner, Clallam County, WA
2019-2020

Professional Experience:

Senior Planner, City of Carlsbad, CA 1985-1999

Planning and Environmental Services Manager, Community Development Department, City of Chula Vista, CA 1999-2002

Stormwater Runoff Planner, Clean Water Branch, Department of Health, State of Hawaii 2003-2013

Development Services Tech, Permitting Services, City of Portland, Oregon 2013-2014

Community Service:
Planning Commissioner, City of Port Angeles, WA 2015-2017

Planning Commissioner, County of Clallam, WA 2018-2020

Thank you for your consideration



Application for Appointment to Whatcom County Boards and Commissions

Public Statement

THIS IS A PUBLIC DOCUMENT: As a candidate for a public board or commission, the information provided will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.

Title	Mr.
First Name	Prakash
Last Name	Sundaresan
Today's Date	7/10/2021
Street Address	735 Kendor Dr
City	Point Roberts
Zip	98281
Do you live in & are you registered to vote in Whatcom County?	Yes
Do you have a different mailing address?	Field not completed.
Primary Telephone	4252332936
Secondary Telephone	Field not completed.
Email Address	p_sundaresan@hotmail.com
1. Name of Board or Committee	Point Roberts Community Advisory Committee
2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?	Yes
3. Which Council district do you live in?	District 5
4. Are you a US citizen?	Yes
5. Are you registered to vote in Whatcom County?	Yes

6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county?	No
7. Have you ever been a member of this Board/Commission?	No
8. Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County?	No
You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions	<u>Prakash Sundaresan Resume 2021.pdf</u> - attached
9. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education	See attached resume.
10. Please describe why you're interested in serving on this board or commission	The Covid crisis has been especially hard for Point Roberts (PR) due to the extended border closure and its impact on both the residents and businesses of PR. While we can hope that the border will eventually re-open, it is not a given that everything will go back to the old normal. What we need is a fundamental re-imagining of what PR is and can be, leveraging it's unique geographical, historical, natural, and human assets while maintaining the essential character that make PR what it is. As a relative new-comer (I have been a member of the PR community since Oct 2019) but with skills and experiences that might be increasingly relevant to the future of PR, I would be happy to volunteer my services to help PR emerge from this crisis stronger, more resilient, and with a clear plan for the future.
References (please include daytime telephone number):	Available upon request.
Signature of applicant:	Prakash Sundaresan
Place Signed / Submitted	Point Roberts, WA

Experienced corporate leader and software entrepreneur with over 20 years of experience building high performance teams that build, deploy, and support innovative mission-critical products and services for customers world-wide. Repeatedly demonstrated the ability to identify challenging problems, win approval / funding for a plan to address the challenge, and build a team to go execute successfully against the mission.

Track Record

VP of Engineering, Amazon Web Services (AWS)

2020 – 2021

At AWS, I was the single-threaded leader responsible for a portfolio of analytics services ([Amazon EMR](#) and [Amazon Athena](#)) with over \$1 Billion in annual revenue and a team of 300+ employees. My responsibilities included strategy formulation, hiring, engineering execution, pricing, go-to-market and supporting production customers around the world. During my time, we led a strategic re-positioning of the Athena service (including growing the investment in that service by 2x) as well as a comprehensive quality and security overhaul of the EMR service. Both services accelerated growth during my tenure while increasing quality and optimizing operational expenses.

VP of Engineering, Workday

2019 – 2020

After Workday's acquisition of Trusted Key in 2019, I joined the senior leadership team for [Workday Credentials](#), "*the world's most advanced network for verified and trusted credentials, powered by blockchain technology*." In this role, I lead the team of 50+ engineers building all aspects of this product, including the blockchain trust layer, the credentials runtime platform, the credentials administrator portal, integrations with Workday's HCM and other applications, APIs for issuers and verifiers, as well as the end-user facing WayTo credentials management application for iOS and Android. The product hit Limited Availability in March of 2020 and is now in the process of onboarding production customers.

Co-founder, founding CEO, and CTO of Trusted Key

2016 – 2019

I was the primary founder of Trusted Key, a startup aimed at reshaping digital identity as we know it. It is generally agreed-upon that a personal digital identity (one that is owned and controlled by the individual) is one of the key missing foundational concepts in today's Internet. In early 2016, it occurred to me that there finally was a way to solve this problem, securely and at scale, using increasingly ubiquitous and mature technologies such as smartphones with trusted execution environments, public-private-key cryptography, and a programmable blockchain platform such as Ethereum.

As founding CEO, I took the startup from idea to incorporation and fund-raising, hired a top-tier team of full-stack developers, and built an industry-leading product (including an enterprise-facing digital identity platform and an end-user facing mobile app for iOS and Android). Along the way, Trusted Key applied for over a dozen patents in this space, the first and most significant of which was successfully awarded in March 2020.

In Jan 2018, I made the decision to bring on a more business-focused CEO and move to the CTO role. Over the next 18 months, Trusted Key completed successful PoC and pilot implementations with 2 of the top 5 commercial banks in the US as well as with the leading consortium of over 200 healthcare companies, and established go-to-market partnerships with 2 of the top 4 technology consulting companies world-wide. On the back of this growing momentum, Trusted Key landed the first public investment from Okta Ventures in early 2019 and was acquired soon after by Workday.

Trusted Key's approach to digital identity is now becoming industry norm, with efforts from leading companies such as [Workday](#), [Microsoft](#), [SAP + Oracle](#), [MasterCard](#), and others adopting the same fundamental approach.

CTO, Microsoft Asia-Pacific R&D (ARD) Group (based in Shanghai, China)

2012 – 2014

As CTO, I help set the strategic direction and innovation agenda for ARD, Microsoft's largest R&D group outside of the Redmond headquarters. ARD consists of over 2000 full-time engineers and researchers working on a variety of products in areas such as cloud computing, e-commerce, big data, search, hardware devices and more.

Key Achievements

- Partnered with global R&D and local Sales & Marketing to successfully land [Microsoft Azure in China](#). Microsoft was the first non-Chinese provider to receive government approval and start offering commercial cloud services in China.

- Championed and led the establishment of Microsoft Startup Accelerator in Beijing that helped startups be successful on Azure. The Accelerator graduated 100 companies in its first 3 years, for a combined market value of over \$5B.
- Led strategy and technology development to address the key Smart Cities opportunity targeting the over 100 cities in China with a population over 1M. This project grew into Microsoft's CityNext offering for partners that provides a customizable analytics platform for cities world-wide.

General Manager, Microsoft Server & Tools Business (STB) China R&D

2009 – 2012

I had overall responsibility for the strategy and operations of STB's R&D organization in China, consisting of over 400 full-time employees and an annual operating budget of over US\$ 100M. This role combined strategy development, large team management, coordination between HQ and China, as well as working with customers, partners, and stakeholders in China.

Key Achievements

- Planned and executed a broad organizational transformation, that, over a 3-yr period, transitioned the organization from over 20+ fragmented efforts to 6 Focus Areas. Along the way, the team was also up-leveled from one consisting primarily of junior engineers to one comparable with other global R&D centers in seniority & experience.
- Oversaw completion, inauguration and move-in into Microsoft's first fully owned campus in China (in Shanghai), with a capacity of over 2,500 seats, along with an executive briefing center, partner training center and other facilities.
- Built deep connections with the local ecosystem of Microsoft customers and partners, including the establishment of the China Cloud Innovation Center (CCIC), with a mission to help China customers and partners move to the cloud.

Product Unit Manager, Microsoft SQL Server China R&D

2007 – 2009

I volunteered to move to China to build SQL Server's R&D team in China. Over 2.5 years, I built a highly talented team of 100+ engineering across Beijing and Shanghai that successfully delivered into multiple releases of SQL Server. Three of the top five leaders on the team were female, and team had the best gender diversity ratio of any 100+ R&D team WW.

Director of Strategy at SQL Server, Microsoft

2005 – 2007

I was co-responsible for developing the long-term product and business strategy for the SQL Server. I was the primary creator of the Data Platform strategy to expand the reach of SQL Server from devices all the way to the cloud, supporting all types of data, and providing a rich set of services. This strategy was approved in a Bill Gates review and served as the north star for the SQL Server team for many years thereafter.

Principal Program Manager, SQL Server Customer Advisory Team,

2004 – 2005

I was part of a group of elite architects who worked with large enterprise customers to help implement the most complex, large-scale, mission-critical projects on the Microsoft platform. I supervised customer projects that deployed a core-banking system in Japan and a telco OSS system in Korea, both firsts for Windows and SQL Server worldwide.

Development Manager at Microsoft SQL Server

1998 – 2003

Led development of the Query Execution Engine for the SQL Server 2000 & SQL Server 2005 database product releases. Also led development of features in the core SQL Server product for the WinFS integrated storage initiative.

Development Lead at Informix Software (later acquired by IBM)

1994 – 1998

Led development of the Query Execution Engine for the massively parallel Informix XPS database product.

Research Intern at Digital Equipment Corp (DEC)

1993 – 1994

Pioneered massively parallel technologies in lab headed by Turing Award winner, the late Dr. Jim Gray.

Education

- University of Washington, Seattle, Foster School of Business Technology Management MBA (TMMBA)
- University of Wisconsin, Madison Master of Science (M.Sc.), Computer Science
- Indian Institute of Technology, Delhi Bachelor of Technology (B. Tech), Computer Science

Patents

<https://patents.justia.com/inventor/prakash-sundaresan>

Point Roberts Community Advisory Committee					
<i>PRCAC Members</i>	<i>Affiliation</i>	<i>Membership term status as of November 2021</i>	<i>1/31/2022</i>	<i>1/31/2023</i>	<i>1/31/2024</i>
Allison Calder	Reg'd Voters Assoc	Eligible for 2nd term as PRRVA representative as of 2/1/22	X		X
Annelle Norman	Tax payers Assoc	Currently serving 1st term as PRTA representative		X	
Katherine Smith	At Large -position 1	Eligible for Reappointment to second term as of 2/1/22	X		X
Grant Heitman	At Large position 2	Not Interested to Continue - new applicant to be appointed	X		X
William Zidel	At Large Position 3	Currently serving 1st partial term		X	
Brian Hunter	At Large Position 4	Appointment confirmation pending - term length 1 year*		X	
Prakash Sundaresan	At Large Position 5	Appointment confirmation pending - term length 1 year*		X	
*Partial one year term - allows for 4/3 split on staggered terms (term length is 2 years)					



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-655

File ID:	AB2021-655	Version:	1	Status:	Agenda Ready
File Created:	11/01/2021	Entered by:	SMildner@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Executive Appointment		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: smildner@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Request confirmation of the County Executive's appointment of Roger Kubalek to the Agricultural Advisory Committee

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached application

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Kubalek Application



Application for Appointment to Whatcom County Boards and Commissions

Public Statement

THIS IS A PUBLIC DOCUMENT: As a candidate for a public board or commission, the information provided will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.

Title	Field not completed.
First Name	Roger
Last Name	Kubalek
Today's Date	10/29/2021
Street Address	2332 Tuttle Lane
City	Lummi Island
Zip	98262
Do you live in & are you registered to vote in Whatcom County?	Yes
Do you have a different mailing address?	Field not completed.
Primary Telephone	7074957548
Secondary Telephone	Field not completed.
Email Address	Roger.Kubalek@gmail.com
1. Name of Board or Committee	Agricultural Advisory Committee
Agricultural Advisory Committee Position:	Agricultural Producer
2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?	Yes
3. Which Council district do you live in?	District 3
4. Are you a US citizen?	Yes

5. Are you registered to vote in Whatcom County?	Yes
6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county?	No
7. Have you ever been a member of this Board/Commission?	No
8. Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County?	No
You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions	<u>Resume Roger Kubalek 2021.pdf</u> - attached
9. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education	<i>Field not completed.</i>
10. Please describe why you're interested in serving on this board or commission	<i>Field not completed.</i>
References (please include daytime telephone number):	<i>Field not completed.</i>
Signature of applicant:	Roger Kubalek
Place Signed / Submitted	Lummi Island, WA

Roger L. Kubalek

Lummi Isl., WA | 707.495.7548 | roger.kubalek@gmail.com

PROFESSIONAL EXPERIENCE

Operations Manager – Full Harvest Technologies, Inc. *January 2019- Present*

- Established & manages the supplier approval program, specifications, food safety documentation, and auditing protocols
- Manage contract manufacturing of innovative products from sourcing raw materials through finished ingredients
- Develop supply networks for specific commodities and customer products
- Manage organic certification process including auditing supply network and certificate renewals
- Build and maintain network of 3rd party processors for IQF and dehydrated ingredients
- Partnered with recruiting team to source and interview quality candidates across the organization
- Work cross functionally with engineering to incorporate and stress test new product features
- Developed and maintain department OKRs in line with high-level company goals

President - Board of Directors – Oregon Tilth Certified Organic, Corvallis, Oregon. *February 2021-Present*

Member - Board of Directors *January 2018 – February 2021*

Oregon Tilth Certified Organic is one of the largest and longest standing organic certification bodies in the U.S. with thousands of clients ranging from growers to food manufacturers. The Board oversees the executive operations and reviews an annual budget of \$10 million supporting an organization of over 40 employees. I serve on the Governance Committee that ensures the bylaws of the organization are met and the Executive Director is functioning in their role.

Operations Manager - Post Harvest – Plenty, Inc. *October 2017- January 2019*

- Managed all post-harvest operations including cooling produce, packaging, labeling, lot coding, inventory and shipping.
- Created SOPs and SSOPs that scale for current farms and future farms
- Oversaw the establishment and development of a formal QA/QC process and program
- Assisted in SQF Certification with zero major or minor non-conformities in post-harvest
- Worked closely with engineering, marketing, and strategy teams to develop systems for ambitious growth plans
- Managed two highly productive full-time employees and temporary labor.
- Invented innovated growing system that reduced costs and inputs for vertical farming operations

Agridulce Farm- Owner-Operator, Berkeley, CA. *February 2016-December 2017*

- Managed production of a 1-acre market garden utilizing organic and regenerative farming techniques
- Started plants in greenhouse as well as directed seeded crops
- Harvested and marketed produce to local restaurants and food producers.
- Managed field irrigation, fertility, and integrated pest management for diverse crop species

Rosarian – City of Berkeley, Berkeley, CA *May 2016 – October 2017*

- Managed a historically significant 3.7 acre garden including over 2000 roses (200 varieties) and natural landscapes
- Performed all horticultural activities with little supervision to restore a neglected park
- Developed volunteer programs and community relationships to strengthen the park's support

Grower Relations Manager – Juicero, Inc., San Francisco, CA *November 2014 – September 2015*

- Developed the organic produce sourcing strategy for an ambitious cold-pressed juice food+tech startup
- Responsible for fostering strong business relationships with organic farms, processors and wholesale distributors
- Worked closely with all departments including Food Safety, R&D, Manufacturing, Marketing, I.T., and Finance
- Assisted in development of quality specifications, receiving SOP's and GMP's.
- Managed production planning and forecasting raw material volumes through stages of company growth
- Maintained inventory and safety stock volumes for pilot production
- Identified opportunities for cost savings
- Consulted in fresh-cut plant design and build-out

Agricultural Field Representative – Amy's Kitchen, Santa Rosa, CA. *May 2012 – November 2014*

- Managed farmer & processor relationships to ensure high quality standards were met
- Mitigated potential losses by proactively managing harvests and vegetable processing
- Assisted in contracting, logistics, and conflict resolution by utilizing creative problem-solving skills
- Managed ingredient supply from harvest through processing plants located across U.S., Canada, Mexico, and Europe.
- Worked closely with multiple departments including Sensory, QA Raw Materials, Planning, R&D, Tech Services, Warehouse and Marketing
- Managed sales of out-of-specification material resulting in over \$400,000 in cost avoidance
- Developed a manufacturing procedure that increased a supplier's capacity to produce a key, difficult to source ingredient by 50% which kept our plant running in an otherwise "out of stock" situation.

Education and Farm Manager – Sustainable Agriculture Education, Berkeley, CA. *February 2011 – May 2012*

- Scheduled and taught 4th-8th grade farm and natural resource based field trips and service learning
- Organized volunteer work activities for youth and adults
- Farm management including pest control, infrastructure maintenance, irrigation and proactively keeping site human health and safety standards
- Provide admin support for various organizational projects including grant applications, hiring, and conservation contracts.
- Curriculum development including farm field trips and in-school presentations

Skills

Food Safety | Contract Manufacturing | Project Management | Contract Negotiation | Agricultural Sourcing | 3rd Party Audit Schemes | Mac & PC Proficient | Microsoft Office Suite + Outlook | Google Apps | ERP Systems | Organic & Biodynamic Certification | Customer Service | Lean Manufacturing | Forecasting

EDUCATION

Masters of Agriculture – Graduation in *Spring 2021*

Washington State University- Pullman.

Researching weed control on small organic farms.

Bachelor of Science, Plant Biology – Biotechnology – *December 2010*

University of Nebraska-Lincoln:

College of Agricultural Sciences and Natural Resources

3.7 GPA



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-627

File ID:	AB2021-627	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Amending the Project Budget for the E. Smith/Hannegan Road Intersection Improvements Fund, Request No. 2

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Requests appropriation of \$1,015,000 to fund increased costs of construction and property rights acquisition for a total project budget of \$5,800,000.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Proposed Ordinance, Supplemental Request, Six-Year Transportation Improvement Plan

ORDINANCE NO. _____

**ORDINANCE AMENDING THE PROJECT BUDGET FOR THE E.
SMITH/HANNEGAN ROAD INTERSECTION IMPROVEMENTS FUND,
REQUEST NO. 2**

WHEREAS, Ordinance No. 2018-057 established the E. Smith/Hannegan Road Intersection Improvements Fund in 2018 granting expenditure authority to initiate preliminary engineering for the multi-year project, and;

WHEREAS, previous phases of the project included preliminary engineering, design, permitting, property rights acquisition, initial construction and construction engineering services, and;

WHEREAS, it is now necessary to add to the project based budget to supplement for construction and property rights acquisition in order to continue with the project, and;

WHEREAS, the East Smith & Hannegan Road Intersection Improvements Project was confirmed on the Council approved 2022 Annual Construction Program and is item number 2 on the Council approved 2022-2027 Six Year Transportation Improvement Program (2022-2027 STIP), and;

WHEREAS, the original construction cost and property rights acquisition cost estimates have increased due to economic changes in market forces along with necessary design changes, and therefore the 2022-2027 STIP estimate of \$4.3 million is insufficient, and;

WHEREAS, the project previously secured \$2 million of outside funding commitments (\$1 million federal Highway Safety Improvement Program funds and \$1 million federal Surface Transportation Block Grant funds), as well as \$2,785,000 of local Road funding, and;

WHEREAS, additional Road funds of up to \$1.015 million, including contingency amounts, will be used to supplement the project's current funding;

1
2 **NOW, THEREFORE, BE IT ORDAINED** by the Whatcom County Council that
3 Ordinance No. 2018-057, associated with establishing a project based budget for
4 the E. Smith/Hannegan Rd Intersection Improvements Fund, is hereby amended,
5 effective January 1st, 2022, by adding an additional amount of \$1,015,000 of
6 expenditure authority to the project budget for a new current project budget
7 expenditure amount of \$5,800,000 as described in Exhibit "A"
8
9

10 **ADOPTED** this ____ day of _____, 2021.
11

12
13 ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

14
15
16 Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

17
18
19
20 APPROVED AS TO FORM:

WHATCOM COUNTY EXECUTIVE
WHATCOM COUNTY, WASHINGTON

21
22
23 Approved by email/C Quinn/M Caldwell
24 Christopher Quinn
25 Senior Civil Deputy Prosecuting Attorney

Satpal Singh Sidhu, County Executive

() Approved () Denied

Date Signed: _____
28
29
30

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

10/8/2021

AJT

Project Title: **E. Smith Road & Hannegan Road Intersection Improvements**Project Codes: **CRP No. 914002; Cost Center 382100**Project Based Budget Request: **No. 2**Duration Requested: **4 yrs (2020, 2021, 2022, 2023)**

Budget Account	Project Activity	Current Approved Project Budget		Amended Project Budget Request		New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$750,000				\$750,000
595200	Right of Way	\$220,000		\$330,000		\$550,000
595300	Construction	\$3,365,000		\$635,000		\$4,000,000
595120	Construction Engineering (In-House & Consultant)	\$450,000		\$50,000		\$500,000
		TOTAL	\$4,785,000	\$1,015,000		\$5,800,000

Object Account	Project Funding	Current Approved Project Revenue		Amended Project Revenue Request		New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$2,785,000		\$1,015,000		\$3,800,000
4333	Federal STBG Funds (Reimbursement for construction)*	\$1,000,000				\$1,000,000
4333	Federal HSIP Funds (Reimbursement for construction)*	\$1,000,000				\$1,000,000
		TOTAL	\$4,785,000	\$1,015,000		\$5,800,000

* Funds committed, but not yet obligated

*HSIP = Highway Safety Improvement Program

*STBG = Surface Transportation Block Grant

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3538

Fund 382

Cost Center 382100

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: Fund 382 E. Smith/Hannegan Intersection Imp. Req 3

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630.595120	Professional Services	\$50,000
	6630.595200	Professional Services	\$50,000
	7320.595200	Land	\$280,000
	7380.595300	Other Improvements	\$635,000
	8301.108	Operating Transfer In	(\$1,015,000)
	Request Total		\$0

1a. Description of request:

The intersection of East Smith and Hannegan Roads is located in Sections 28, 29, 32 and 33, T39N, R3E. This project is listed #R2 on the 2022-2027 Six-Year Transportation Improvement Program and experienced delays due to the lack of left-turn channelization on Smith Road. Traffic counts and warrants have been completed. Additionally, an associated 'Alternatives Analysis' was performed by a traffic consultant in 2018. Construction is anticipated in 2022. This request provides the funding needed in the project based budget for the construction and construction engineering work related to this project.

1b. Primary customers:

All road users who travel on the Hannegan and Smith Road corridors.

2. Problem to be solved:

The main purpose of the intersection improvements is to improve vehicle operations and increase safety for vehicle drivers, bicyclists, and pedestrians.

3a. Options / Advantages:

The alternatives analysis completed in 2018 compared three alternatives for improvements to the intersection. The three alternatives were an upgraded traffic signal with protected left turn movements, a single-lane roundabout, and a double-lane roundabout. The double-lane roundabout provided the highest level of vehicle operations for a twenty year design life, while providing a much safer intersection than the existing signal or an upgraded signal.

3b. Cost savings:

Potential costs savings are realized by an improved level of service for the motoring public and potential decrease in motor vehicle accidents.

4a. Outcomes:

The approval of budget authority will allow for the completion of design, R/W acquisition, permitting, and construction of the chosen alternative

4b. Measures:

The measures of success will be obligation of construction grant funds of \$2 million when R/W is certified and environmental permits are signed off by FHWA and WSDOT.

5a. Other Departments/Agencies:

N/A

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3538

Fund 382

Cost Center 382100

Originator: Randy Rydel

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The construction contract and construction engineering work will be funded with Surface Transportation Block Grant (STBG) and Highway Safety Improvement Program funds. The remainder will be covered with local Road funds.

Current Funding:

Federal STBG: \$1,000,000

Federal HSIP: \$1,000,000

Road Funds: \$2,785,000

Proposed Additional Funding:

Road Funds: \$1,015,000

Total Project Budget: \$5,800,000

Exhibit "A"
Draft Six Year
Transportation
Improvement Program
2022-2027

FUNG. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE											FEDERALLY FUNDED PROJECTS ONLY	
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	RW REQ? Y/N DATE COMPLETE MONTH / YEAR			
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS															
17	R1	Birch Bay Drive & Pedestrian Facility 20010 from Lora Lane to Cedar Avenue Pedestrian & Non-motorized Enhancements	12053206	S	1.58	T P C W S	PE RW CN Total	1/2022		0		0	0	300	300	200	90	10	0	300	0	300	CE	No 5/2019			
07	R2	East Smith Road & Hannegan Road 55080 / 55110 Intersection Improvements	060712	S	0.40	C G P T	PE RW CN Total	1/2022		0		0	0	400	400	400	0	0	0	400	0	400	CE	Yes			
16	R3	Marine Drive, Locust Avenue to Alderwood Avenue 12790 From MP 4.57 to MP 3.92 Reconstruction & bike/pedestrian facilities	03061232	S	0.65	C G P T W	PE RW CN Total	1/2022		0		0	0	400	400	400	0	0	0	400	0	400	CE	Yes			
17	R4	Samish Way & Galbraith Lane 44060 from MP 1.41. to 1.68 Pedestrian Crosswalk Coordination with the City of Bellingham Parking Lot Development	061232	S	0.27	C G P T W	PE RW CN Total	1/2022		0		0	0	10	10	10	0	0	0	10	0	10		Yes			
09	R5	Marshall Hill Road Slide Rpr/Culvert Rplc 89260 from MP 0.60 to 0.70 Replace Culvert & Repair Slide Damage	0607	S	0.20	C P T	PE RW CN Total	1/2022		0		0	0	100	100	100	0	0	0	100	0	100		Yes			
17	R6	Birch Bay Lynden Rd. & Blaine Rd. 21580 from MP 1.00 to UAB MP 1.25 Intersection Improvements	060712	P	0.25	C G P T W	PE RW CN Total	1/2022		0		0	0	950	950	400	150	400	0	950	0	950	CE	Yes			
16	R7	Smith Road & Northwest Drive 75080 / 74050 Intersection Improvements	030612	P	0.40	C G P T W	PE RW CN Total	1/2022		0		0	0	35	35	25	5	5	0	35	0	35		Yes			
09	R8	Chief Martin Road, Cagey Road to Kwina Road 14110 from MP 0.00 to MP 2.50 Pavement Rehabilitation	050607	P	2.50	C P T	PE RW CN Total	1/2022		0		0	0	100	100	100	0	0	0	100	0	100		No			
16	R9	Slater Road & Northwest Drive 14760/74050 Intersection Improvements with WSDOT as lead agency	030612	S	0.40	C G P T W	PE RW CN Total	1/2022		0		0	0	15	15	5	5	5	0	15	0	15	CE	Yes			
17	R10	Birch Bay Drive Crosswalk 20010 from MP 3.29 to MP 3.30	0612	S	0.10	C P	PE RW	1/2022		0		0	0	195	195	50	70	75	0	195	0	195		No			



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-636

File ID:	AB2021-636	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Establishing the Birch Bay Lynden Rd & Blaine Rd Intersection Improvements Fund and Establishing a Project Based Budget for the Birch Bay Lynden Rd & Blaine Rd Intersection Improvements Fund; CRP #906001

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Request establishes the Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements Fund in the amount of \$650,000 for preliminary engineering and right-of-way phases of the project.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance, Supplemental Budget Request, Six-Year Transportation Improvement Program

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE BIRCH BAY LYNDEN RD. & BLAINE RD.
INTERSECTION IMPROVEMENTS FUND AND ESTABLISHING A PROJECT BASED BUDGET
FOR THE BIRCH BAY LYNDEN RD. & BLAINE RD. INTERSECTION IMPROVEMENTS
FUND; CRP #906001**

WHEREAS, the Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements project is item number R6 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 6 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$1,450,000 over multiple years; and

WHEREAS, the Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, since preparation of the STIP, professional consulting has recommended a smaller, lower cost roundabout without affecting Level of Service; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the smaller project, which are anticipated to be \$650,000; and

WHEREAS, funding for this phase of the project will come from the Road Fund; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

BE IT FURTHER ORDAINED by the Whatcom County Council that the Birch Bay Lynden Rd. & Blaine Rd. Intersection Improvements Fund is approved as described in Exhibit A with an initial project budget of \$650,000.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of the Council

APPROVED AS TO FORM:

() Approved () Denied

Approved by email/C Quinn/M Caldwell
Christopher Quinn
Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed: _____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Birch Bay Lynden Rd & Blaine Rd (SR-548) I**

Project Codes: **CRP No. 906001**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$400,000
595200	Right of Way	\$250,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0

TOTAL \$650,000

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$650,000
4333	Federal STBG Funds (Reimbursement for construction)*	\$0
4333	Federal HSIP Funds (Reimbursement for construction)*	\$0

TOTAL \$650,000

* Funds committed, but not yet obligated

*HSIP = Highway Safety Improvement Program

*STBG = Surface Transportation Block Grant

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3533

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: Birch Bay Lynden, Blaine Rd; CRP 906001

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110.595110	Regular Salaries & Wages	\$57,000
	6290.595110	Applied Benefits	\$43,000
	6630.595110	Professional Services	\$300,000
	6630.595200	Professional Services	\$75,000
	7320.595200	Land	\$175,000
	8301.108	Operating Transfer In	(\$650,000)
	Request Total		\$0

1a. Description of request:

This project is located 4.6 miles south of Blaine, at the corners common to Sections 19, 20, 29, and 30, T40N, R1E. Intersection improvements being considered are a roundabout or a signal. This is a joint project with the Washington State Department of Transportation; however, it is unlikely that they will participate as a funding source. This project is listed #R6 on the 2022-2027 Six-Year Transportation Improvement Program.

Survey work and Right-of-Way Plan has been started. Consultant contract completed to evaluate & decide on preferred design alternative, which was a roundabout. Applied for and received federal STBG funding of \$800K which is available in 2023-2024. Final design consultant selected, and proceeding with final design in late 2021. Additional grant funds will be looked for through other sources.

Construction proposed for 2024

This request is to provide the funding needed to establish a project based budget for the preliminary engineering and right-of-way needs to design this project.

1b. Primary customers:

All road users who travel on the Birch Bay Lynden and Blaine Road corridors.

2. Problem to be solved:

The main purpose of the intersection improvements is to improve vehicle operations and increase safety for both vehicle drivers and pedestrians.

3a. Options / Advantages:

3b. Cost savings:

Potential costs savings are realized by an improved level of service for the motoring public and potential decrease in motor vehicle accidents.

4a. Outcomes:

This project will provide a more efficient and safer intersection at the Birch Bay Lynden and Blaine Road intersection.

Monday, October 25, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3533

Fund

Cost Center

Originator: Randy Rydel

4b. Measures:

The measures of success will be obligation of construction grant funds when Right-of-Way is certified and environmental permits are signed off by FHWA and WSDOT.

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

WSDOT coordination is necessary due the the multijurisdictional nature of this intersection.

6. Funding Source:

The Road Fund will fund the design and build with support from grants.

Surface Transportation Block Grant funds are expected for this project in 2023-2024.

FUNG. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY	
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N DATE COMPLETE MONTH / YEAR			
							PROJECT PHASE	MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE													STATE FUNDS		
17	R1	Birch Bay Drive & Pedestrian Facility 20010 from Lora Lane to Cedar Avenue Pedestrian & Non-motorized Enhancements	12 05 32 06	S	1.58	T P C W S	PE RW CN Total	1/2022 1/2022	0 0	0 0	0 0	0 0	300 150 450	300 150 450	200 150 350	90 0 90	10 0 10	0 0 0	300 150 450	0 0 0	300 150 450	CE	No 5/2019			
07	R2	East Smith Road & Hannegan Road 55080 / 55110 Intersection Improvements	06 07 12	S	0.40	C G P T	PE RW CN Total	1/2022 1/2022 5/2022	0 0 ST/HSIP	0 0 2,000	0 0 2,000	0 0 0	400 150 1,750 2,300	400 150 3,750 4,300	400 150 3,750 4,300	0 0 0 0	0 0 0 0	0 0 0 0	400 150 3,750 4,300	0 0 2,000 2,000	400 150 1,750 2,300	CE	Yes			
16	R3	Marine Drive, Locust Avenue to Alderwood Avenue 12790 From MP 4.57 to MP 3.92 Reconstruction & bike/pedestrian facilities	03 06 12 32	S	0.65	C G P T W	PE RW CN Total	1/2022 1/2022 4/2022	0 0 STBG	0 0 2,509	0 0 2,509	0 0 0	400 50 591 1,041	400 50 3,100 3,550	400 50 3,100 3,550	0 0 0 0	0 0 0 0	0 0 0 0	400 50 3,100 3,550	0 0 2,509 2,509	400 50 591 1,041	CE	Yes			
17	R4	Samish Way & Galbraith Lane 44060 from MP 1.41. to 1.68 Pedestrian Crosswalk Coordination with the City of Bellingham Parking Lot Development	06 12 32	S	0.27	C G P T W	PE RW CN Total	1/2022 1/2022 1/2022	0 0 0	0 0 0	0 0 0	0 0 0	10 10 40 60	10 10 40 60	10 10 40 60	0 0 0 0	0 0 0 0	0 0 0 0	10 10 40 60	0 0 0 0	10 10 40 60		Yes			
09	R5	Marshall Hill Road Slide Rpr/Culvert Rpic 89260 from MP 0.60 to 0.70 Replace Culvert & Repair Slide Damage	06 07	S	0.20	C P T	PE RW CN Total	1/2022 1/2022 6/2022	0 0 0	0 0 0	0 0 0	0 0 0	100 25 600 725	100 25 600 725	100 25 600 725	0 0 0 0	0 0 0 0	0 0 0 0	100 25 600 725	0 0 0 0	100 25 600 725		Yes			
17	R6	Birch Bay Lynden Rd. & Blaine Rd. 21580 from MP 1.00 to UAB MP 1.25 Intersection Improvements	06 07 12	P	0.25	C G P T W	PE RW CN Total	1/2022 1/2023 5/2024	0 0 STBG	0 0 801	0 0 801	0 0 0	950 500 2,799 4,249	950 500 3,600 5,050	400 200 3,600 650	150 50 0 350	400 50 3,600 4,050	0 0 0 0	950 500 3,600 5,050	0 0 801 801	950 500 2,799 4,249	CE	Yes			
16	R7	Smith Road & Northwest Drive 75080 / 74050 Intersection Improvements	03 06 12	P	0.40	C G P T W	PE RW CN Total	1/2022 	 	 	 	 	35 0 0 35	35 0 0 35	25 5 5 35	5 5 5 15	5 5 5 15	0 0 0 0	35 0 0 35	0 0 0 0	35 0 0 35		Yes			
09	R8	Chief Martin Road, Cagey Road to Kwina Road 14110 from MP 0.00 to MP 2.50 Pavement Rehabilitation	05 06 07	P	2.50	C P T	PE RW CN Total	1/2022 	 	 	 	0 0 0 0	100 0 0 100	100 0 0 100	100 0 0 100	0 0 0 0	0 0 0 0	0 0 0 0	100 0 0 100	0 0 0 0	100 0 0 100		No			
16	R9	Slater Road & Northwest Drive 14760/74050 Intersection Improvements with WSDOT as lead agency	03 06 12	S	0.40	C G P T W	PE RW CN Total	1/2022 	 	 	 	0 0 0 0	15 0 0 15	15 0 0 15	5 0 0 5	5 0 0 5	5 0 0 5	0 0 0 0	15 0 0 15	0 0 0 0	15 0 0 15	CE	Yes			
17	R10	Birch Bay Drive Crosswalk 20010 from MP 3.29 to MP 3.30 New Crosswalk from Berm to Parks Facility	06 12 32	S	0.10	C P T W	PE RW CN Total	1/2022 5/2024	0 0 0	0 0 0	0 0 0	0 0 0	195 300 495	195 300 495	50 300 50	70 0 70	75 300 375	0 0 0	195 300 495	0 0 0	195 300 495		No			
07	R11	Lummi Nation Transportation Projects Various locations on Reservation	12 03 06 07 32	S			PE RW CN Total	1/2022 1/2022 6/2022	0 0 0	0 0 0	0 0 0	0 0 0	350 150 1,500 2,000	350 150 1,500 2,000	350 150 1,500 2,000	0 0 0 0	0 0 0 0	0 0 0 0	350 150 1,500 2,000	0 0 0 0	350 150 1,500 2,000		Yes			



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-637

File ID:	AB2021-637	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Establishing the Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund and Establishing a Project Based Budget for the Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund; CRP #920003

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Request establishes the Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund and requests a project based budget in the amount of \$500,000 for the preliminary engineering and right-of-way phases of the project.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Proposed Ordinance, Supplemental Budget Request, Six-Year Transportation Improvement Program

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE GOSHEN ROAD/ANDERSON CREEK
BRIDGE NO. 248 REPLACEMENT FUND AND ESTABLISHING A PROJECT
BASED BUDGET FOR THE GOSHEN ROAD/ANDERSON CREEK BRIDGE NO.
248 REPLACEMENT FUND; CRP #920003**

WHEREAS, the Goshen Road/Anderson Creek Bridge No. 248 Replacement project is item number B5 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 35 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$690,000 over multiple years; and

WHEREAS, Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the project, which are anticipated to be \$380,000; and

WHEREAS, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the construction effort; and

WHEREAS, funding for these phases of the project will be provided partially by federal funding from the Bridge Advisory Committee (BRAC) and partially by local Road funds; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Goshen Road/Anderson Creek Bridge No. 248 Replacement Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the Goshen
2 Road/Anderson Creek Bridge No. 248 Replacement Fund is approved as described
3 in Exhibit A with an initial project budget of \$500,000.
4

5 **ADOPTED** this _____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10 _____
11 Dana Brown-Davis, Clerk of the Council
12

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:
14

() Approved () Denied

15 Approved by email/C Quinn/M Caldwell
16 Christopher Quinn
17 Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed: _____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Goshen Road/Anderson Creek Bridge No. 248 Replacement**

Project Codes: **CRP No. 920003**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$340,000
595110	Contingency For Project	\$120,000
595200	Right of Way	\$40,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
		TOTAL <u><u>\$500,000</u></u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$300,000
4333	Federal BRAC Funds (Reimbursement for preliminary engineering)*	\$200,000
		\$0
		TOTAL <u><u>\$500,000</u></u>

* Funds committed, but not yet obligated

*BRAC = Bridge Advisory Committee

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3535

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: Goshen Road/Anderson Creek Br No. 248; CRP #920003

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.2021	Bridge Replacement (BR/BRR)	(\$200,000)
	6000	Expenditures	\$120,000
	6110.595110	Regular Salaries & Wages	\$43,000
	6290.595110	Applied Benefits	\$32,000
	6630.595110	Professional Services	\$265,000
	7320.595200	Land	\$40,000
	8301.108	Operating Transfer In	(\$300,000)
	Request Total		\$0

1a. Description of request:

This project is located south of Everson/Goshen in Section 19, T39N, R4E. This is a project to replace the existing 62-foot structurally deficient bridge. This project is listed #B5 on the 2022-2027 Six Year Transportation Improvement Program.

The existing Goshen Road Bridge No. 248 is considered structurally deficient and has deteriorating girders, pile caps and piles. It will be replaced with a new pre-stressed concrete girder bridge.

Preliminary design, permitting and real estate work began in 2020. Approximately \$5 million in Federal Bridge Replacement funds were secured in late 2019 for the preliminary engineering and construction phases of this project.

1b. Primary customers:

2. Problem to be solved:

The existing Goshen Road Bridge No. 248 is structurally deficient and has a reinforced concrete channel beam superstructure with a wood pile substructure. The existing approach roadway has 9-foot paved lanes and 2-foot gravel shoulders and will be replaced with a new pre-stressed concrete girder bridge and associated road approach work.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

Construction of the new bridge is expected to take place and conclude in 2024. The new bridge will no longer hold weight limit restrictions, opening this roadway back up to all legal traffic loads.

4b. Measures:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

<i>Supp'l ID # 3535</i>	Fund	Cost Center	Originator: Randy Rydel
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5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Whatcom County has been awarded \$5,024,950 in federal bridge replacement funds for this project.

Exhibit "A"
Six Year Transportation Improvement Program
2022-2027

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY		
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	RW REQ? Y/N DATE COMPLETE MONTH / YEAR			
								FEDERAL FUNDS		STATE FUNDS																	
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS															
17	R36	Birch Bay Drive / Lora Lane Culvert Replc 20010 from MP2.68 to MP 2.69 Replace large culvert under BB Dr @ Lora Ln	03 06 07	P	0.01	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	40 0 0 40	40 0 0 40	30 0 0 30	0 0 0 0	0 0 0 10	40 0 0 40	0 0 0 0	40 0 0 40		Yes					
07	R37	Birch Bay Lynden Rd / Kickerville Rd 21580 from MP 1.89 to MP 2.09 21850 from MP 5.43 to MP 5.63 Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	15 0 0 15	15 0 0 15	5 0 0 5	5 0 0 5	5 0 0 5	0 0 0 0	15 0 0 15	0 0 0 0	15 0 0 15	CE	Yes				
07	R38	Corridor Intersection Alts Analysis (6 ea) BBL/Berthusen; BBL/Enterprise; Bay/Kickerville; Bay/V.View; Hann/Hemmi; Hann/VanWyck Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	360 0 0 360	360 0 0 360	5 0 0 5	355 0 0 355	0 0 0 0	0 0 0 0	360 0 0 360	0 0 0 0	360 0 0 360		No				
07	R39	Deer Trail Slide Damage Repair 25350 from MP .035 to MP .091 Repair slide damage	03	S	0.06	C P T	PE RW CN Total	1/2022	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	30 0 0 100	30 0 0 100	30 0 0 100	0 0 0 0	0 0 0 0	0 0 0 0	30 0 0 100	0 0 0 0	30 0 0 100		No				
							Total		0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	130 0 0 130	130 0 0 130	130 0 0 130	0 0 0 0	0 0 0 0	0 0 0 0	130 0 0 130	0 0 0 0	130 0 0 130						

Bridge and Fish Passage Capital Construction

16	B1	Marine Drive/Little Squalicum Bridge No.1 12790 From MP 5.24 to 5.34 Rehabilitation	10	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	20 0 0 20	CE	Yes	
18	B2	Jackson Road/Terrell Creek/Bridge No. 81 21950 From MP 0.00 to MP 0.10 Replacement	09	P	0.10	P T C W	PE RW CN Total	1/2022 1/2022	0 0 0 0	0 0 0 0	0 0 0 0	350 100 0 450	350 100 0 450	200 50 0 250	150 50 0 200	0 0 0 0	0 0 0 0	350 100 0 450	350 100 0 450	No	No	
08	B3	Mosquito Lk Rd/Porter Crk/Bridge No. 141 84190 From MP 9.55 to MP 9.65 Replacement	09	P	0.10	T C P	PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5	No	No	
08	B4	North Lake Samish Road/Bridge No. 107 44170 From MP 0.01 to MP 0.11 Replacement	09	S	0.10	P C T G	PE RW CN Total	1/2022 1/2022 1/2022	BR 0 0 0	500 0 8,500 9,000	0 0 0 0	25 0 8,500 25	525 0 8,500 9,025	425 0 7,000 7,425	100 0 1,500 1,600	0 0 0 0	0 0 0 0	525 0 8,500 9,025	500 0 8,500 9,000	25 0 0 25	CE	Yes
08	B5	Goshen Road/Anderson Crk/Bridge No. 248 56140 From MP 0.56 to MP 0.76 Replacement	09	S	0.10	P T	PE RW CN Total	1/2022 1/2022 1/2024	BR 0 0 0	650 0 3,300 3,950	0 0 0 0	650 40 3,300 4,000	200 20 0 220	100 20 0 120	350 20 3,300 3,650	0 0 0 0	0 0 0 0	650 40 3,300 3,990	650 40 3,300 3,950	0 40 0 40	CE	Yes
09	B6	Martin Rd/Anderson Crk/Bridge No. 250 56340 From MP 0.20 to 0.21 Replacement	09	P	0.10		PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5	No	No	
07	B7	Loomis Trail Rd/Bertrand Crk Trib Brdg No. 497 26502 From MP 3.84 to 3.94 Scour Mitigation	09	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5	No	No	



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-638

File ID:	AB2021-638	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Establishing the North Fork Road/Kenney Creek Fish Passage Fund and Establishing a Project Based Budget for the North Fork Road/Kenney Creek Fish Passage Fund; CRP #919007

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Request establishes the North Fork Road/Kenney Creek Fish Passage Fund and requests a project based budget of \$425,000 for the preliminary engineering and right-of-way phases of the project.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance, Supplemental Budget Request, Six-Year Transportation Improvement Program

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE NORTH FORK ROAD/KENNEY CREEK FISH
PASSAGE FUND AND ESTABLISHING A PROJECT BASED BUDGET FOR THE
NORTH FORK ROAD/KENNEY CREEK FISH PASSAGE FUND; CRP #919007**

WHEREAS, the North Fork Road/Kenney Creek Fish Passage project is item number B11 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 37 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$770,000 over multiple years; and

WHEREAS, Washington State Department of Transportation requirements for the STIP include construction engineering in the PE line item; and

WHEREAS, this request for funding is for preliminary engineering, not to include construction engineering, and right-of-way phases of the project, which are anticipated to be \$320,000; and

WHEREAS, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the construction effort; and

WHEREAS, the Brian Abbott Fish Barrier Removal Board has committed \$2,975,000 of state funding for the construction phase of this project, with a local cost share from the Road Fund; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled North Fork Road/Kenney Creek Fish Passage Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the North
2 Fork Road/Kenney Creek Fish Passage Fund is approved as described in Exhibit A
3 with an initial project budget of \$425,000.
4

5 **ADOPTED** this _____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10 _____
11 Dana Brown-Davis, Clerk of the Council
12

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:
14

() Approved () Denied

15 Approved by email/C Quinn/M Caldwell
16 Christopher Quinn
17 Civil Deputy Prosecutor
18

Satpal Sidhu, County Executive
Date Signed: _____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **North Fork Road/Kenney Creek Fish Passage**

Project Codes: **CRP No. 919007**

Project Based Budget Request: **Initial Request**

Duration Requested: **3 yrs (2021, 2022, 2023)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$300,000
595110	Contingency for Project	\$105,000
595200	Right of Way	\$20,000
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
TOTAL		<u>\$425,000</u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$425,000
4334	State FBRB Funds	\$0
		\$0
TOTAL		<u>\$425,000</u>

* Funds committed, but not yet obligated

*FBRB = Fish Barrier Removal Board

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3536

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: North Fork Rd/Kenney Cr Fish Passage; CRP #919007

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6000	Expenditures	\$105,000
	6110.595110	Regular Salaries & Wages	\$43,000
	6290.595110	Applied Benefits	\$32,000
	6630.595110	Professional Services	\$225,000
	7320.595200	Land	\$20,000
	8301.108	Operating Transfer In	(\$425,000)
	Request Total		\$0

1a. Description of request:

The existing 5-foot diameter corrugated steel culvert which carries Kenney Creek under the North Fork Road has been identified as a barrier to fish passage and, considering habitat to be gained, is considered one of the highest priority barriers within the County road system. Washington State Fish Barrier Removal Board (FBRB) funding has been secured for the design and construction phases of this fish passage project. This project is listed as #B11 on the 2022-2027 Six-Year Transportation Improvement Program.

Project design, permitting and real estate began in 2019. Design work was completed in the spring of 2021. Whatcom County has been awarded \$443,000 of State FBRB funds for the design phase of this project and in the summer of 2021 Whatcom County was awarded \$2,975,000 in state FBRB funds for the construction phase of this project.

Construction of this project is scheduled for 2023.

1b. Primary customers:

2. Problem to be solved:

This project will restore full fish passage at an existing poorly functioning fishway and culvert where Kenney Creek crosses under North Fork Road approximately 1-mile north of Mosquito Lake Road with a new 110-ft concrete bridge

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

Monday, October 25, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3536

Fund

Cost Center

Originator: Randy Rydel

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Fish Barrier Removal funding of \$3,418,000 from the State with the remaining coming from the Road Fund.

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT COSTS IN THOUSANDS OF DOLLARS										EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY			
							PROJECT PHASE	FUNDING SOURCE INFORMATION				OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N DATE COMPLETE MONTH / YEAR							
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE													STATE FUNDS						
09	B8	Flynn Road/Fishtrap Creek Bridge No. 51 31630 From MP 0.55 to 0.56 Replacement	09	P	0.10		PE RW CN Total	1/2025 	0 0 0 0		0 0 0 0		5 5 0 5	5 5 0 5	0 0 0 0	0 0 0 0	5 5 0 5	5 5 0 5	0 0 0 0			Yes								
09	B9	Salakanum Wy/Anderson Crk Brdg No. 509 56050 from MP 0.4 to MP 0.5 Replacement	09	P	0.10		PE RW CN Total	1/2025 	0 0 0 0		0 0 0 0		5 5 0 5	5 5 0 5	0 0 0 0	0 0 0 0	5 5 0 5	5 5 0 5	0 0 0 0			Yes								
08	B10	Mosquito Lake Rd/ Hutchinson Crk Tributary 84190 from MP 3.10 to MP 3.20 Fish Passage	06 07	S	0.10	P C T	PE RW CN Total	1/2022 1/2022 1/2022 	0 0 0 0		0 0 0 0		50 10 550 610	50 10 550 610	50 10 550 610	0 0 0 0	50 10 550 610	50 10 550 610	0 0 0 0	50 10 550 610		Yes								
09	B11	North Fork Road/Kenney Creek 89510 from MP 1.0 to 1.10 Fish Passage	06 08	S	0.10	P C T	PE RW CN Total	1/2022 1/2022 1/2023 	0 0 0 0	FBRB	625 20 2550 3175	0 0 0 0	125 20 450 595	750 20 3,000 3,770	250 20 3,000 270	500 0 3,000 3,500	0 0 0 0	750 20 3,000 3,770	625 0 2,550 3,175	125 0 450 595	CE	Yes								
09	B12	Deal Road 89300 from MP 0.0 to 0.10 Fish Passage	03 06	P		P C T	PE RW CN Total	1/2022 1/2022 	0 0 0 0		0 0 0 0		75 20 0 95	75 20 0 95	75 20 0 95	0 0 0 0	75 20 0 95	75 20 0 95	0 0 0 0	75 20 0 95										
	B13	Fox Road/California Creek 22920 at MP 1.07 to 1.17 Fish Passage	03 06	P	0.10		PE RW CN Total	1/2022 1/2022 	0 0 0 0		0 0 0 0		400 25 0 425	400 25 0 425	150 5 0 155	150 10 0 160	100 10 0 110	0 0 0 0	400 25 0 425	0 0 0 0	400 25 0 425	Yes								
	B14	Nulle Road/Friday Creek Bridge No. 106 41830 at MP 0.15 to 0.25 Rehabilitation	03 06	P	0.10		PE RW CN Total	1/2022 5/2022 	0 0 0 0		0 0 0 0		100 0 500 600	100 0 500 600	100 0 500 600	0 0 0 0	0 0 0 0	100 0 500 600	0 0 0 0	100 0 500 600										

Ferry Capital Construction

00	F1	Replacement of Whatcom Chief & Terminal Modification New Ferry and Terminal Modifications	06	P			PE RW CN Total	1/2022 1/2024		0 0 0 0		0 0 0 0		1,312 0 10,067 11,379	2,206 0 31,171 33,379	649 0 10,067 11,379	1,076 0 9,168 1,076	387 0 22,003 9,555	96 0 31,171 22,099	2,206 0 31,171 33,379	896 0 21,104 22,000	1,312 0 10,067 11,379		No
00	F2	Lummi Island Breakwater Replacement Terminal Modifications	06	S	0.10		PE RW CN Total	1/2022 7/2022		0 0 0 0		0 0 0 0		150 0 1,115 1,265	150 0 2,000 2,150	150 2,000 2,150 2,150	0 0 0 0	0 0 0 0	150 2,000 2,150 2,150	0 885 885 885	150 1,115 1,265 1,265		CE	No
00	F3	Relocation of Gooseberry Terminal	06	P			PE RW CN Total	1/2022		0 0 0 0		0 0 0 0		150 0 0 150	150 0 0 150	50 0 0 50	50 0 0 50	50 0 0 50	0 0 0 0	150 0 0 150	0 0 0 0	150 0 0 150		Yes

Yearly Capital Construction

00	Y1	Various Bridges Rehabilitation/Replacement As prioritized	09 10	S			PE RW CN Total	1/2022 1/2022		0 0 0 0		0 0 0 0		300 0 1,500 1,800	300 0 1,500 1,800	50 250 250 300	50 250 250 300	50 250 250 300	150 750 750 900	300 1,500 1,500 1,800	0 0 0 0	300 1,500 1,500 1,800		Yes
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Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-640

File ID:	AB2021-640	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance amending the 2022 Whatcom County Budget, request no. 2, in the amount of \$12,007,450

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Supplemental #2 requests funding from the Road Fund:

1. To appropriate \$12,007,450 to fund the 2022 Annual Road Program.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Proposed Ordinance, Annual Road Program Request

**ORDINANCE NO.
AMENDMENT NO. 2 OF THE 2022 BUDGET**

WHEREAS, the 2021-2022 budget was adopted November 24, 2020; and,

WHEREAS, changing circumstances require modifications to the approved 2021-2022 budget; and,

WHEREAS, the modifications to the budget have been assembled here for deliberation by the Whatcom County Council,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that the 2021-2022 Whatcom County Budget Ordinance #2020-068 is hereby amended by adding the following additional amounts to the 2022 budget included therein:

Fund	Expenditures	Revenues	Net Effect
Road Fund	12,007,450	(925,000)	11,082,450
Total Supplemental	12,007,450	(925,000)	11,082,450

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Chair of Council

APPROVED AS TO FORM:

() Approved () Denied

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

**Jon Hutchings
DIRECTOR**



Randy Rydel

Financial Services Manager
322 N. Commercial Street, Suite 210
Bellingham, WA 98225-4042
Telephone: (360) 778-6217
www.whatcomcounty.us
RRydel@co.whatcom.wa.us

MEMORANDUM

To: The Honorable Satpal Singh Sidhu, Whatcom County Executive and
Honorable Members of the Whatcom County Council

Through: Jon Hutchings, Public Works Director *JH*

From: James P. Karcher, P.E., County Engineer *QPK*
Randy Rydel, Public Works Financial Services Manager *RR*

Date: October 28, 2021

Re: Supplemental Budget Request #3134 for the implementation of the 2022 Annual Construction Program

The attached Supplemental Budget Request #3537 grants expenditure authority for the capital budget associated with the approved 2022 Annual Construction Program (approved by Council 10/26/21). The Annual Construction Program has been summarized in the following schedule:

Total Approved 2022 Annual Construction Program	\$29,070,000
Project based budgets (less funding transfers in)	-14,925,000
Previously budgeted wage and benefits	<u>-1,137,550</u>
Remaining ACP Expenditure to be budgeted	\$12,007,450
 Current Budget Expenditure Request	
Prelim./Const. Engineering	\$1,647,450
Right of Way Acquisition	120,000
Contract and County Forces Construction	<u>7,150,000</u>
Capital Expenditure Request Total	\$8,917,450
 Transfers to fund Project Based Budgets (PBB)	
East Smith/Hannegan Rd Fund 382	\$1,015,000
Birch Bay Lynden Rd/Blaine Rd Fund	650,000
Jackson Rd/Terrell Creek Br 81 Fund	700,000
Goshen Rd/Anderson Creek Br 248 Fund	300,000
North Fork Rd/ Kenney Creek Fund	<u>425,000</u>
Transfer to PBB Total	\$3,090,000
 Remove Offsetting Federal/State Grant Funding	<u>-925,000</u>
 Net Change/SBR Total	\$11,082,450

Please contact Randy Rydel at extension 6217 with any questions.

Enclosures: Supplementary Budget Request #3537
Exhibit A – Budget Distribution Detail
Exhibit B – Annual Construction Program as Approved 10/26/2021

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3537

Fund 108

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

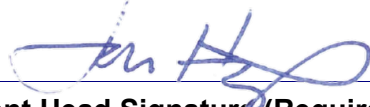
Add'l FTE ☐

Add'l Space ☐

Priority 1

Name of Request: 2022 Annual Road Construction Program

X



10/28/21

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.2026	Federal Aid Other	(\$20,000)
	4333.2026	Federal Aid Other	(\$885,000)
	4334.0372	Arterial Preservation	(\$20,000)
	6630.595110	Professional Services	\$1,351,450
	6630.595200	Professional Services	\$120,000
	7380.595810	Other Improvements	\$2,000,000
	7380.595300	Other Improvements	\$3,850,000
	7380.595510	Other Improvements	\$1,300,000
	8351	Operating Transfer Out	\$300,000
	8351	Operating Transfer Out	\$650,000
	8351	Operating Transfer Out	\$700,000
	8351.169114	Operating Transfer Out	\$296,000
	8351.382	Operating Transfer Out	\$1,015,000
	8351	Operating Transfer Out	\$425,000
	Request Total		\$11,082,450

1a. Description of request:

This supplemental follows council's approval of the 2022 Annual Road Construction Program. The requested funding will provide the expenditure authority to move forward with the approved Annual Construction Program.

The County Road Administration Board (CRAB) requires that an Annual Construction Program (ACP) be approved prior to approving a capital budget to fund the program. Council reviewed and approved the 2022 ACP at the October 26th council meeting. This request summarizes the budgetary impacts of the ACP and supplements the Road Fund's 2022 budget to account for the included capital projects.

This request also authorizes the transfer of \$1,875,000 into Project Based Funds for preliminary engineering funding of 4 multi-year projects, Birch Bay Lynden Rd & Blaine Rd Intersection Improvements, Jackson Road/Terrell Creek Bridge No. 81 Replacement, Goshen Road/Anderson Creek Bridge No. 248 Replacement, and the North Fork Road/Kenney Creek Fish Passage project. Additionally \$1,015,000 will be transferred into the East Smith Road & Hannegan Road Intersection Improvements project.

1b. Primary customers:

Users of Whatcom County roads

2. Problem to be solved:

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3537

Fund 108

Cost Center

Originator: Randy Rydel

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund, State and Federal Grants

Exhibit A

Budget Distribution Detail

ACP Number	Cost Center	Expense	Account	Description	Revenue	Account	Description
4	919005	\$10,000	6630.595200	Right-of-Way			
4	919005	\$40,000	7380.595300	Construction			
5	921022	\$25,000	6630.595200	Right-of-Way			
5	921022	\$600,000	7380.595300	Construction			
12	910002	\$100,000	7380.595300	Construction			
13	916007	\$100,000	7380.595300	Construction			
15	921001	\$1,500,000	7380.595300	Construction			
17	915013	\$54,000	8351.169114	Transfer to Flood			
18	921003	\$37,000	8351.169114	Transfer to Flood			
19	919002	\$155,000	8351.169114	Transfer to Flood			
20	919001	\$50,000	8351.169114	Transfer to Flood			
24	922002	\$25,000	6630.595110	Engineering	(\$20,000)	4334.0372	Rural Arterial Program
27	922003	\$300,000	7380.595300	Construction			
28	921007	\$40,000	6630.595110	Engineering	(\$20,000)	4333.2026	Emergency Relief Funds
32	921020	\$100,000	7380.595300	Construction			
36	919006	\$10,000	6630.595200	Right-of-Way			
36	919006	\$550,000	7380.595510	Construction			
38	921008	\$20,000	6630.595200	Right-of-Way			
39	922007	\$5,000	6630.595200	Right-of-Way			
40	921021	\$500,000	7380.595510	Construction			
42	914015	\$2,000,000	7380.595810	Construction	(\$885,000)	4333.2026	Ferry Boat Discretionary Program
44	922008	\$250,000	7380.595510	Construction			
45	922009	\$50,000	6630.595200	Right-of-Way			
46	922010	\$270,000	7380.595300	Construction			
47	922011	\$100,000	7380.595300	Construction			
48	922012	\$50,000	7380.595300	Construction			
50	922014	\$90,000	7380.595300	Construction			
51	922015	\$150,000	7380.595300	Construction			
52	922016	\$300,000	7380.595300	Construction			
53	922017	\$150,000	7380.595300	Construction			
2	108920	\$1,015,000	8351.382	Transfer to PBB			
6	108920	\$650,000	8351	Transfer to PBB			
33	108920	\$700,000	8351	Transfer to PBB			
35	108920	\$300,000	8351	Transfer to PBB			
37	108920	\$425,000	8351	Transfer to PBB			
	108920	\$1,286,450	6630.595110	Engineering			
		\$12,007,450			(\$925,000)		
			\$11,082,450	Net Impact			

Exhibit B

Whatcom County
2022
Annual Construction Program
WAC 136-16

(A) **TOTAL CONSTRUCTION DONE** (total sum of column 13 + column 14): \$22,650,000.00
(B) **COMPUTED COUNTY FORCES LIMIT:** \$1,801,005.50
(C) **TOTAL COUNTY FORCES CONSTRUCTION** (total sum of column 14): \$145,000.00

Date of Environmental Assessment:
Date of Final Adoption:
Ordinance/Resolution Number:

(1)	(2)	(3)	(4)					(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information				Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds			Estimated Expenditures Dollars					
				Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (595.10)	Right of Way (595.20)	Construction		Grand Total (All 595)	
												Amount	Program Source			Contract	County Forces		
1	R1	CRP #907001 Birch Bay Drive & Pedestrian Facility from Lora Lane to Cedar Avenue	20010	Road Name: Birch Bay Drive From: Lora Lane To: Cedar Avenue	2.68	4.26	17	1.58	P&T FP DR Other	S	\$350,000			\$200,000		\$150,000	\$0	\$350,000	PBB
2	R2	CRP #914002 East Smith Road & Hannegan Road	55080	Road Name: East Smith Road From: East Smith Road To: Hannegan Road	1.86	2.06	07	0.40	3R IS Illm Safety	S	\$2,300,000	\$1,000,000.00	HSIP	\$400,000	\$150,000	\$3,750,000		\$4,300,000	PBB
			55110	Road Name: Hannegan Road From: East Smith Road To: Hannegan Road	1.86	2.06	07												
3	R3	CRP #917001 Marine Drive, Locust Avenue to Alderwood Avenue	12790	Road Name: Marine Drive From: Locust Avenue To: Alderwood Avenue	3.92	4.57	16	0.65	RC SW P&T Safety	S	\$1,041,000	\$2,509,000.00	STP(UL)	\$400,000	\$50,000	\$3,100,000		\$3,550,000	PBB
4	R4	CRP #919005 Samish Way/Galbraith Lane	44060	Road Name: Samish Way From: Samish Way To: Galbraith Lane	1.41	1.68	17	0.27	IS Other Safety Illm	S	\$60,000			\$10,000	\$10,000	\$30,000	\$10,000	\$60,000	
			44060	Road Name: Galbraith Lane From: 0 To: 0	0.00	0.00	09												
5	R5	CRP #921022 Marshall Hill Road Slide Repair/Culvert Replacement	89260	Road Name: Marshall Hill Road From: Marshall Hill Rd. To: Marshall Hill Rd.	0.60	0.70	09	0.10	3R Other	S	\$725,000			\$100,000	\$25,000	\$590,000	\$10,000	\$725,000	
6	R6	CRP #906001 Birch Bay Lynden Rd. & Blaine Rd.	21580	Road Name: Birch Bay Lynden Rd. From: Birch Bay Lynden Rd. To: Blaine Rd.	1.00	1.25	17	0.25	IS Illm SW Safety 3R	S	\$650,000			\$400,000	\$250,000			\$650,000	PBB
7	R7	CRP #918019 Smith Road & Northwest Drive	75080	Road Name: Smith Road From: 0 To: 0	1.40	1.60	16	0.40	RC IS Illm Safety	S	\$25,000		\$25,000					\$25,000	
			74050	Road Name: Northwest Drive From: 0 To: 0	3.50	3.70	16												
8	R8	CRP # 920016 Chief Martin Road, Cagney Road to Kwina Road	14110	Road Name: Chief Martin Road From: Cagney Road To: Kwina Road	0.00	2.50	06	2.50	3R Safety	S	\$100,000			\$100,000				\$100,000	
9	R9	CRP #914001 Slater Road & Northwest Drive	14760	Road Name: Slater Road From: Slater Road To: Northwest Drive	8.00	8.29	16	0.40	RC FP IS Illm Safety	S	\$5,000		\$5,000					\$5,000	
			74050	Road Name: Northwest Drive From: Slater Road To: Northwest Drive	2.27	2.38	16												
10	R10	CRP #922018 Birch Bay Drive Crosswalk	20010	Road Name: Birch Bay Drive From: Birch Bay Drive To: Birch Bay Drive	3.29	3.30	16	0.01	Safety Other	S	\$50,000			\$50,000				\$50,000	
11	R11	CRP #912017 Lummi Nation Transportation Projects						N/A			\$2,000,000			\$350,000	\$150,000	\$1,500,000		\$2,000,000	PBB
12	R12	CRP 910002 Point Roberts Transportation Improvements						N/A			\$150,000			\$50,000		\$90,000	\$10,000	\$150,000	
13	R13	CRP #916007 Hemmi Road Flood Mitigation	56320	Road Name: East Hemmi Road From: East Hemmi Road To: East Hemmi Road	2.30	2.60	08	0.30	2R DR Other	S	\$125,000			\$25,000		\$90,000	\$10,000	\$125,000	

Exhibit B

	(2)	(3)	(4)				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information				Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds		Estimated Expenditures Dollars					
				Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (\$95.10)	Right of Way (\$95.20)	Construction		Grand Total (All \$95)
												Amount	Program Source			Contract	County Forces	
14	R14	CRP #915014 Innis Creek Road	88850	Road Name: Innis Creek Road From: Innis Creek Road To: Innis Creek Road	2.45	2.65	09	0.20	2R DR Other Safety	S	\$10,000		\$10,000				\$10,000	
15	R15	CRP #921001 Birch Bay Drive, Jackson Road to Shintaffer Road	20010	Road Name: Birch Bay Drive From: Jackson Road To: Shintaffer Road	2.10	4.53	07	2.43	3R Safety	E	\$1,750,000		\$250,000		\$1,490,000	\$10,000	\$1,750,000	
16	R16	CRP #921002 Marine Drive II, Alderwood Avenue to Bridge No. 172	12790	Road Name: Marine Drive From: Alderwood Avenue To: Bridge No. 172	3.37	3.92	06	0.55	RC P&T	S	\$15,000		\$15,000				\$15,000	
17	R17	CRP #915013 Turkington Road/Jones Creek	89200	Road Name: Turkington Road From: Turkington Road To: Turkington Road	0.40	0.60	09	0.20	RC Other	S	\$54,000		\$54,000				\$54,000	
18	R18	CRP #921003 Truck Road, 2020 Flood Damage Repair	89200	Road Name: Truck Road From: Truck Road To: Truck Road	0.40	0.60	16	0.20	3R K	S	\$37,000		\$37,000				\$37,000	
19	R19	CRP 919002 Abbott Road/Levee Improvements	55560	Road Name: Abbott Road From: Abbott Road To: Abbott Road	1.70	1.90	09	0.20	RC Other	S	\$155,000		\$155,000				\$155,000	
20	R20	CRP #919001 Ferndale Road/Levee Improvements	12800	Road Name: Ferndale Road From: Ferndale Road To: Ferndale Road	2.50	3.82	08	1.32	Other	S	\$50,000		\$50,000				\$50,000	
21	R21	CRP #921004 Lake Louise, Austin Street to Lake Whatcom Boulevard	46010	Road Name: Lake Louise Road From: Austin Street To: Lake Whatcom Blvd.	0.00	4.06	18	4.06	3R Safety	E	\$25,000		\$25,000				\$25,000	
22	R22	CRP #921005 Austin Street, Lake Louise Street to Cable Street	46020	Road Name: Austin Street From: Lake Louise To: Cable Street	0.00	0.37	16	0.37	3R SW Safety	S	\$25,000		\$25,000				\$25,000	
23	R23	CRP #922001 Northwest Drive, Slater Rd. To Axton Rd.	73680	Road Name: Northwest Drive From: Slater Road To: Axton Road	2.38	4.65	16	2.27	3R	E	\$15,000		\$15,000				\$15,000	
24	R25	CRP #922002 Hampton Road, City of Lynden UAB to Van Buren	61700	Road Name: Hampton Road From: City of Lynden UAB To: Van Buren	0.14	4.79	06	4.65	3R	E	\$5,000	\$20,000.00	RAP	\$25,000			\$25,000	
25	R28	CRP #921019 Lakeway Drive Corridor Improvements	45690	Road Name: Lakeway Drive From: Lakeway Drive To: Lakeway Drive	0.00	1.39	16	1.39	Other P&T Safety	E	\$50,000		\$50,000				\$50,000	
26	R29	CRP #908011 Lincoln Road/Harborview Road to Blaine Road	26190	Road Name: Lincoln Road From: Harborview Road To: Blaine Road	0.00	1.00	18	1.00	RC NEW Other	S	\$5,000		\$5,000				\$5,000	
27	R31	CRP #922003 Small Area Paving						N/A	3R 2R	E	\$350,000		\$50,000		\$290,000	\$10,000	\$350,000	
28	R34	CRP #921007 South Pass Road	66040	Road Name: South Pass Road From: South Pass Road To: South Pass Road	3.50	3.65	16	0.15	2R Safety	E	\$20,000	\$20,000.00	ER	\$40,000			\$40,000	
29	R36	CRP #922004 Birch Bay Drive/Lora Lane Culvert Replacement	20010	Road Name: Birch Bay Drive From: Birch Bay Drive To: Lora Lane	2.68	2.69	17	0.01	DR	S	\$30,000		\$30,000				\$30,000	
30	R37	CRP #922005 Birch Bay Lynden Rd/Kickerville Rd.	21580	Road Name: Birch Bay Lynden Rd. From: Birch Bay Lynden Rd. To: Kickerville Rd.	1.89	2.09	07	0.40	IS 3R Safety	S	\$5,000		\$5,000				\$5,000	
			21850	Road Name: Kickerville Rd. From: Kickerville Rd. To: Birch Bay Lynden Rd.	5.43	5.63	08											
31	R38	CRP #922006 Corridor Intersection Alts Analysis						N/A	IS	S	\$5,000		\$5,000				\$5,000	
32	R39	CRP #921020 Deer Trail Slide Damage Repair	26350	Road Name: Deer Trail From: Deer Trail To: Deer Trail	0.35	0.91	09	0.56	Other	S	\$130,000		\$30,000		\$90,000	\$10,000	\$130,000	
33	B2	CRP #917004 Jackson Road/Terrell Creek Bridge No. 81	21950	Road Name: Jackson Road From: Jackson Road To: Jackson Road	0.00	0.10	18	0.10	Br	S	\$250,000		\$200,000	\$50,000			\$250,000	
34	B4	CRP #913006 North Lake Samish/Bridge No. 107	84190	Road Name: North Lake Samish From: North Lake Samish To: North Lake Samish	0.01	0.11	08	0.10	Br P&T	S	\$25,000	\$7,400,000.00	BR	\$425,000		\$7,000,000		\$7,425,000

PBB

PBB

Exhibit B

Annual Budget																			
	(2)	(3)	(4)					(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information				Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds			Estimated Expenditures Dollars					
				Road Name	BMP	EMP	FFC				County Road Funds	Other Funds		PE & CE (595.10)	Right of Way (595.20)	Construction		Grand Total (All 595)	
												Amount	Program Source			Contract	County Forces		
35	B5	CRP #920003 Goshen Road/Anderson Creek Bridge No. 248	56140	Road Name: Goshen Road From: Goshen Road To: Goshen Road	0.56	0.76	08	0.20	Br	S	\$20,000	\$200,000.00	BR	\$200,000	\$20,000			\$220,000	PBB
36	B10	CRP #919006 Mosquito Lake Road/Hutchinson Creek Tributary	84190	Road Name: Mosquito Lake Road From: Mosquito Lake Road To: Mosquito Lake Road	3.10	3.20	08	0.10	FP	S	\$610,000			\$50,000	\$10,000	\$535,000	\$15,000	\$610,000	
37	B11	CRP #919007 North Fork Road/Kenney Creek	89510	Road Name: North Fork Road From: North Fork Road To: North Fork Road	1.00	1.10	09	0.10	FP	S	\$70,000	\$200,000.00	FBRB	\$250,000	\$20,000			\$270,000	PBB
38	B12	CRP #921008 Deal Road/Fish Passage	89300	Road Name: Deal Road From: Deal Road To: Deal Road	0.00	0.10	09	0.10	FP	S	\$95,000			\$75,000	\$20,000			\$95,000	
39	B13	CRP #922007 Fox Road/California Creek Fish Passage	22920	Road Name: Fox Road From: Fox Road To: Fox Road	1.07	1.17	09	0.10	FP	S	\$155,000			\$150,000	\$5,000			\$155,000	
40	B14	CRP #921021 Nulle Road/Friday Creek Bridge No. 106	41830	Road Name: Nulle Road From: Nulle Road To: Nulle Road	0.15	0.25	09	0.10	3R	S	\$600,000			\$100,000		\$490,000	\$10,000	\$600,000	
41	F1	CRP #919008 Replacement of Whatcom Chief & Terminal Modification						N/A	Ferry	E	\$649,000			\$649,000				\$649,000	
42	F2	CRP #914015 Lummi Island Breakwater Replacement						N/A	Ferry	E	\$1,265,000	\$885,000.00	FBP	\$150,000		\$2,000,000		\$2,150,000	
43	F3	CRP #919009 Relocation of Gooseberry Terminal						N/A	Ferry	E	\$50,000			\$50,000				\$50,000	
44	Y1	CRP #922008 Various Bridge Rehabilitation/Replacement						N/A	Br	S	\$300,000			\$50,000		\$250,000		\$300,000	
45	Y2	CRP #922009 Right of Way Acquisition						N/A		E	\$50,000				\$50,000			\$50,000	
46	Y3	CRP #922010 Unanticipated Site Improvements						N/A		E	\$300,000			\$30,000		\$260,000	\$10,000	\$300,000	
47	Y4	CRP #922011 Unanticipated Stormwater Quality Improvements						N/A		S	\$120,000			\$20,000		\$90,000	\$10,000	\$120,000	
48	Y5	CRP #922012 Unanticipated Non-motorized Transportation Improvements						N/A	SW P&T Safety	I	\$60,000			\$10,000		\$40,000	\$10,000	\$60,000	
49	Y6	CRP #922013 Fish Passage Projects						N/A	FP	S	\$50,000			\$50,000				\$50,000	
50	Y7	CRP #922014 Swift Creek Transportation Impacts						N/A			\$100,000			\$10,000		\$90,000		\$100,000	
51	Y8	CRP #922015 Railroad Crossing Improvements						N/A	Other 2R Safety	I	\$200,000			\$50,000		\$140,000	\$10,000	\$200,000	
52	Y9	CRP #922016 Beam Guardrail Replacements/Upgrades						N/A	Safety	I	\$350,000			\$50,000		\$290,000	\$10,000	\$350,000	
53	Y10	CRP #922017 ADA Barrier Removal						N/A	SW	E	\$200,000			\$50,000		\$150,000		\$200,000	
											\$15,836,000	\$13,234,000		\$5,610,000	\$810,000	\$22,505,000	\$145,000	\$29,070,000	



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-641

File ID:	AB2021-641	Version:	1	Status:	Agenda Ready
File Created:	10/28/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Establishing the Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund and Establishing a Project Based Budget for the Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund; CRP #917004

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Requests establishing the Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund and requests a project based budget of \$700,000 to cover the type, size, and location phase of preliminary design.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Proposed Ordinance, Supplemental Budget Request, Six-Year Transportation Improvement Program

ORDINANCE NO. _____

**ORDINANCE ESTABLISHING THE JACKSON ROAD/TERRELL CREEK BRIDGE
NO. 81 REPLACEMENT FUND AND ESTABLISHING A PROJECT BASED
BUDGET FOR THE JACKSON ROAD/TERRELL CREEK BRIDGE NO. 81
REPLACEMENT FUND; CRP #917004**

WHEREAS, the Jackson Road/Terrell Creek Bridge No. 81 Replacement project is item number B2 on the 2022-2027 Six Year Transportation Improvement Program (STIP), and item number 33 on the 2022 Annual Construction Program, with anticipated right-of-way and preliminary engineering (PE) costs of \$450,000 over multiple years; and

WHEREAS, it is anticipated that \$450,000 will move this project through the type, size, and location phase of preliminary design; and

WHEREAS, due to the project location in Birch Bay, which is an area of cultural significance and an urban setting, it is appropriate to include a contingency amount in the project, knowing that unused budget will flow into the future phases of the project; and

WHEREAS, funding for this project is entirely Road Fund with other sources still being sought; and

WHEREAS, Section 6.80 of the Whatcom County Home Rule Charter allows for project-based capital budget appropriation ordinances that lapse when the project has been completed or abandoned or when no expenditure or encumbrance has been made for three (3) years,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that a new fund is hereby established, effective January 1st, 2022, titled Jackson Road/Terrell Creek Bridge No. 81 Replacement Fund. This fund shall be used to account for the revenues and expenditures of the improvement project described above, and

1 **BE IT FURTHER ORDAINED** by the Whatcom County Council that the Jackson
2 Road/Terrell Creek Bridge No. 81 Replacement Fund is approved as described in
3 Exhibit A with an initial project budget of \$700,000.
4

5 **ADOPTED** this _____ day of _____, 2021.
6

7
8 ATTEST:
9

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

10 _____
11 Dana Brown-Davis, Clerk of the Council
12

Barry Buchanan, Chair of the Council

13 APPROVED AS TO FORM:
14

() Approved () Denied

15 Approved by email/C Quinn/M Caldwell
16 Christopher Quinn
17 Civil Deputy Prosecutor

Satpal Sidhu, County Executive
Date Signed:_____

Exhibit "A"

Project Based Budget - Budget Request Tracking Sheet

Project Title: **Jackson Road / Terrell Creek - Bridge No. 81 Re**

Project Codes: **CRP No. 917004**

Project Based Budget Request: **Initial Request**

Duration Requested: **4 yrs (2021, 2022, 2023, 2024)**

Budget Account	Project Activity	New Approved Project Budget
595110	Preliminary Engineering (In-House & Consultant)	\$450,000
595110	Contingency For Project	\$250,000
595200	Right of Way	\$0
595300	Construction	\$0
595120	Construction Engineering (In-House & Consultant)	\$0
TOTAL		<u><u>\$700,000</u></u>

Object Account	Project Funding	New Approved Project Revenue
8301	Local Funds (transfer from Road Fund)	\$700,000
4334		\$0
		\$0
TOTAL		<u><u>\$700,000</u></u>

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3534

Fund

Cost Center

Originator: Randy Rydel

Expenditure Type: One-Time

Year 2 2022

Add'l FTE ☐

Add'l Space ☐

Priority

1

Name of Request: Jackson Road/Terrell Creek Br No. 81; CRP 917004

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6000	Expenditures	\$250,000
	6110.595110	Regular Salaries & Wages	\$57,000
	6290.595110	Applied Benefits	\$43,000
	6630.595110	Professional Services	\$350,000
	8301.108	Operating Transfer In	(\$700,000)
	Request Total		\$0

1a. Description of request:

This project is located near Birch Bay in Section 31, T40N, R1W and is listed #B2 on the 2022-2027 Six Year Transportation Improvement Program.

The Jackson Road Bridge No. 81 over Terrell Creek, near the intersection of Jackson Road and Birch Bay Drive, was built in 1975 and is nearing the end of its useful service life. The existing 62-foot bridge span consists of two 31-foot channel beam girders supported on an intermediate pier with timber caps and piles. As this bridge is currently load restricted and classified as structurally deficient, Whatcom County Public Works has begun work on its replacement. Preliminary design work, including a type, size, and location study began in 2020. Design work and Right-of-Way will continue with anticipated construction in 2025.

This funding request is anticipated to cover the project needs through the type, size, and location study as well as a contingency amount that will carry through the project phases.

Outside funding is being pursued for the construction phase of this project.

1b. Primary customers:

The Birch Bay Community and visitors to the area.

2. Problem to be solved:

The existing 62-foot bridge span consists of two 31-foot channel beam girders supported on an intermediate pier with timber caps and piles. This bridge is at the end of its useful service life and is load restricted and classified as structurally deficient,

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

Wednesday, October 27, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Engineering Design/Const

Suppl ID # 3534

Fund

Cost Center

Originator: Randy Rydel

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Currently this project is entirely Road Fund funded, but outside funding sources are still being sought.

Six Year Transportation Improvement Program
2022-2027

FUNC. CLASS	TIP PROJECT NO.	PROJECT IDENTIFICATION A. PIN/Federal Aid No. B. Bridge Number C. Project Title D. Street/Road Name or Number E. Beginning MP or Road-Ending MP or Road F. Describe Work to be Done	IMPROVEMENT TYPE(S)	PROJECT COSTS IN THOUSANDS OF DOLLARS											EXPENDITURE SCHEDULE										FEDERALLY FUNDED PROJECTS ONLY	
				STATUS	TOTAL LENGTH (mi.)	UTILITY CODES	PROJECT PHASE	FUNDING SOURCE INFORMATION					OTHER REVENUES	LOCAL FUNDS	TOTAL	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	Years 4th Thru 6th	TOTAL 2022-2027	Grant Total 2022-2027	Local Total 2022-2027	ENVIRON- MENTAL TYPE	R/W REQ? Y/N DATE COMPLETE MONTH / YEAR		
								MONTH / YEAR PHASE STARTS	FEDERAL FUND CODE	FEDERAL COST BY PHASE	STATE FUND CODE	STATE FUNDS														
17	R36	Birch Bay Drive / Lora Lane Culvert Replc 20010 from MP2.68 to MP 2.69 Replace large culvert under BB Dr @ Lora Ln	03 06 07	P	0.01	C P T	PE RW CN Total	1/2022		0 0 0 0		0 0 0 0	40 0 0 40	40 0 0 40	30 0 0 30	0 0 0 0	0 0 0 0	10 0 0 10	40 0 0 40	0 0 0 0	40 0 0 40		Yes			
07	R37	Birch Bay Lynden Rd / Kickerville Rd 21580 from MP 1.89 to MP 2.09 21850 from MP 5.43 to MP 5.63 Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022		0 0 0 0		0 0 0 0	15 0 0 15	15 0 0 15	5 0 0 5	5 0 0 5	5 0 0 5	0 0 0 0	15 0 0 15	0 0 0 0	15 0 0 15	CE	Yes			
07	R38	Corridor Intersection Alts Analysis (6 ea) BBL/Berthusen; BBL/Enterprise; Bay/Kickerville; Bay/V.View; Hann/Hemmi; Hann/VanWyck Intersection Improvements	06 07 12	P	0.40	C P T	PE RW CN Total	1/2022		0 0 0 0		0 0 0 0	360 0 0 360	360 0 0 360	5 0 0 5	355 0 0 355	0 0 0 0	0 0 0 0	360 0 0 360	0 0 0 0	360 0 0 360		No			
07	R39	Deer Trail Slide Damage Repair 25350 from MP .035 to MP .091 Repair slide damage	03	S	0.06	C P T	PE RW CN Total	1/2022 1/2022		0 0 0 0		0 0 0 0	30 100 130	30 100 130	30 100 130	0 0 0	0 0 0	0 0 0	0 0 0	30 100 130	0 0 0	30 100 130		No		
Bridge and Fish Passage Capital Construction															130	130	130	0	0	130	0	130				

16	B1	Marine Drive/Little Squalicum Bridge No.1 12790 From MP 5.24 to 5.34 Rehabilitation	10	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	0 0 0 0	0 0 0 0	20 0 0 20	20 0 0 20	0 0 0 0	20 0 0 20	CE	Yes	
18	B2	Jackson Road/Terrell Creek/Bridge No. 81 21950 From MP 0.00 to MP 0.10 Replacement	09	P	0.10	P T C W	PE RW CN Total	1/2022 1/2022	0 0 0 0	0 0 0 0	0 0 0 0	350 100 0 450	350 100 0 450	200 50 0 250	150 50 0 200	0 0 0 0	0 0 0 0	350 100 0 450	0 0 0 0	350 100 0 450		No	
08	B3	Mosquito Lk Rd/Porter Crk/Bridge No. 141 84190 From MP 9.55 to MP 9.65 Replacement	09	P	0.10	C P	PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5		No	
08	B4	North Lake Samish Road/Bridge No. 107 44170 From MP 0.01 to MP 0.11 Replacement	09	S	0.10	P C T G	PE RW CN Total	1/2022 1/2022 1/2022	BR 0 8,500 9,000	0 0 0 0	0 0 0 0	25 0 8,500 9,025	25 0 8,500 9,025	425 0 7,000 7,425	100 0 1,500 1,600	0 0 0 0	0 0 0 0	25 0 8,500 9,025	25 0 8,500 9,000	0 0 0 25	25 0 8,500 9,000	CE	Yes
08	B5	Goshen Road/Anderson Crk/Bridge No. 248 56140 From MP 0.56 to MP 0.76 Replacement	09	S	0.10	P T	PE RW CN Total	1/2022 1/2022 1/2024	BR 650 0 3,300 3,950	0 0 0 0	0 0 0 0	650 40 3,300 3,990	650 40 3,300 3,990	200 20 0 220	100 20 3,300 3,650	350 0 0 3,650	0 0 0 0	650 40 3,300 3,990	650 40 3,300 3,950	0 40 0 40	650 40 3,300 3,950	CE	Yes
09	B6	Martin Rd/Anderson Crk/Bridge No. 250 56340 From MP 0.20 to 0.21 Replacement	09	P	0.10		PE RW CN Total	1/2026	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5		No	
07	B7	Loomis Trail Rd/Bertrand Crk Trib Brdg No. 497 26502 From MP 3.84 to 3.94 Scour Mitigation	09	P	0.10		PE RW CN Total	1/2025	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	0 0 0 0	0 0 0 0	5 0 0 5	5 0 0 5	0 0 0 0	5 0 0 5		No	



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-650

File ID:	AB2021-650	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	THelms@co.whatcom.wa.us		
Department:	County Executive's Office	File Type:	Ordinance		
Assigned to:	Council	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: Bbennett@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance amending Whatcom County Code (WCC) 3.08.060 (Purchasing System) to update the small public works roster process to award public works contracts under WCC 3.08.095 and to establish consulting services roster award process for architectural, engineering, and other professional services

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

See attached

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
-------	--------------	---------	----------

Attachments: Proposed Ordinance, Exh A 3.08.060 strikethrough, Exh B 3.08.95 strikethrough, Exh C 3.08.096 new redline

PROPOSED BY: Brad Bennett

INTRODUCED: November 9, 2021

ORDINANCE NO. _____

AN ORDINANCE AMENDING WCC 3.08 (PURCHASING SYSTEM) TO UPDATE THE SMALL PUBLIC WORKS ROSTER PROCESS TO AWARD PUBLIC WORKS CONTRACTS UNDER WCC 3.08.095 AND TO ESTABLISH CONSULTING SERVICES ROSTER AWARD PROCESS FOR ARCHITECTIURAL, ENGINEERING, AND OTHER PROFESSIONAL SERVICES.

WHEREAS, RCW 39.04.155 and other laws regarding contracting for public works by municipalities, allow certain contracts to be awarded by a small works roster process; and

WHEREAS, Whatcom County Code sections 3.08.060 and 3.08.095 provide for awards of contracts from a small works roster pursuant to RCW 39.04.155; and

WHEREAS, WCC 3.08.095 should be updated to ensure compliance with the current requirements of state law as to allow for continued use of the small works roster contract awards process; and

WHEREAS, Ch. 39.80 RCW and other laws regarding contracting for consulting services by municipalities allow certain contracts to be awarded by a consultant roster process; and

WHEREAS, WCC 3.08.060 currently requires all awards of contracts for professional services exceeding \$40,000.00 be based upon bids or proposals in response to specifications and invitations to bid subject to the provisions of WCC 3.08.090; and

WHEREAS, the Whatcom County Council seeks to establish procedures for the use of consultant rosters as an alternative means of procuring professional services contracts consistent with the requirements of state law; and

WHEREAS, the availability and use of a consultant roster contract award process will help achieve greater administrative efficiencies related to the procurement of professional services; and

WHEREAS, the Whatcom County Council wishes to update the purchasing code, WCC 3.08, to include a new section that provides for a consultant roster contract award process as an alternative to existing purchasing code requirements.

NOW, THEREFORE, BE IT ORDAINED, that the County Code shall hereby be amended as detailed in the attached Exhibit(s) A, B, and C.

ATTEST:

Dana Brown-Davis, Clerk of the Council

APPROVED AS TO FORM:

Christopher Quinn per email 10/27/2021
Civil Deputy Prosecutor

**WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON**

Barry Buchanan, Council Chair

**WHATCOM COUNTY EXECUTIVE
WHATCOM COUNTY, WASHINGTON**

Satpal Sidhu, County Executive

() Approved () Denied

Date Signed: _____

EXHIBIT A
3.08.060

3.08.060 Bids and proposals required.

Awards of contracts for the acquisition of materials, supplies, services, tools, equipment or rental of personal property and professional services exceeding \$40,000 will be based upon bids or proposals received in response to specifications and invitations to bid, except as follows **provided below**:

A. Sole source purchases shall not be required to go through competitive bidding. A purchase may be determined to be sole source by the county executive or designee when the bidding process would be futile because only one bidder could respond to the invitation.

B. In the event of an emergency when the public interest or property of the county would suffer material injury or damage by delay, upon an order of the county executive declaring the existence of such emergency and reciting the facts constituting same, the requirements governing competitive bids with reference to any purchase or contract may be waived pursuant to RCW [36.32.270](#).

C. Public works projects involving funds not exceeding the amount allowed ~~in~~ **under** RCW [39.04.155](#), ~~Small works roster contract procedures — Limited public works process~~, or any successor statute, may be completed utilizing the small works roster contract award process **pursuant to WCC 3.08.095**.

D. Acquisition is from another public entity.

E. Contract does not require use of county funds.

F. The procurement of professional services may be completed utilizing the Consultant Roster Award Process pursuant to WCC 3.08.096.

Proposals from architects and engineers are subject to the requirements of Chapter [39.80](#) RCW. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A; Ord. 93-042 Exh. H).

EXHIBIT B
3.08.095

3.08.095 Small works roster contract award process.

This section may be utilized in the acquisition of contractual services necessary to complete public works projects as allowed under RCW [36.32.250](#), and consistent with RCW [39.04.155](#). ~~In order to use a small works roster contract award process in lieu of formal sealed bidding, the county shall~~ **To use the small works roster contract award process provided for by this section the following procedures shall be followed:**

A. ~~Publish at least twice each year in the official county newspaper a notice of the existence of the roster and solicit the names of contractors that are qualified for the requested categories of work. Notice shall be published at least once in each week for two consecutive weeks prior to the last date upon which response to the notice will be received, and may be published for as many additional publications as shall be considered in the county's interest.~~ **Publication.** At least once a year, the County or its designee, shall publish in a newspaper of general circulation within the County's jurisdiction a notice of the existence of a small works roster and solicit the names of contractors for the small works roster. Responsible contractors shall be added to the small works roster at any time that a contractor completes an online application provided by the County or its designee, and meets the minimum State requirements for roster listing.

B. ~~In every case a certain category of work is to be accomplished under this section, all contractors responding to the above notice and indicating their qualification to perform the category of work proposed shall be contacted and provided an invitation to bid.~~ **Small Works Roster - Non- Limited Public Work Process. Written, or Electronic Bids.** The County shall obtain, written, or electronic bids for public works contracts from contractors on the appropriate small works roster to assure that a competitive price is established and to award contracts to a contractor who meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). The County may establish supplementary bidder criteria under RCW 39.04.350 (2) to be considered in the process of awarding a contract.

1) An invitation to bid pursuant to a small works roster will not be advertised. Invitations for bids shall include an estimate of the scope and nature of the work to be performed as well as materials and equipment to be furnished. However, detailed plans and specifications need not be included in the invitation.

2) Bids will be invited from all appropriate contractors on the appropriate small works roster. As an alternative to the preceding requirement, quotations may be invited from at least five contractors on the

appropriate small works roster who have indicated the capability of performing the kind of work being contracted, in a manner that will equitably distribute the opportunity among the contractors on the appropriate roster. "Equitably distribute" means that the County may not favor certain contractors on the appropriate small works roster over other contractors on the appropriate small works roster who perform similar services.

If the estimated cost of the work is from two hundred and fifty thousand dollars (\$250,000) up to the authorized threshold for use of the small works roster process in RCW 39.04 and the County elects to solicit bids from less than all the appropriate contractors on the appropriate small works roster pursuant to this sub-section, the County must notify the remaining contractors on the appropriate small works roster that bids on the work are being sought. The County has the sole option of determining whether their notice to the remaining contractors is made by:

- (a) publishing notice in a legal newspaper in general circulation in the area where the work is to be done;
 - (b) mailing a notice to these contractors; or
 - (c) sending a notice to these contractors by facsimile or email.
- 3) At the time bids are solicited, the County representative shall not inform a contractor of the terms or amount of any other contractor's bid for the same project;
- 4) A written record shall be made by the County representative of each contractor's bid on the project and of any conditions imposed on the bid. Immediately after an award is made, the bids obtained shall be recorded, open to public inspection, and available by telephone inquiry.

~~C. Include in the invitation to bid the date on which bids will be received, the scope and nature of work to be performed, the materials and equipment to be furnished, and, if not provided otherwise in the invitation to bid, where the detailed plans and specifications may be seen and obtained.~~ **Small Works Roster-**

Limited Public Works Process. The County may award a contract for work, construction, alteration, repair, or improvement projects using the limited public works process if the project cost is equal to or less than the amount established in RCW 39.04.155(3). For a limited public works project, the County will solicit electronic or written bids from a minimum of three contractors from the appropriate small works roster and shall award the contract to the lowest responsible bidder as defined under RCW 39.04.010. After an award is made, the bids shall be open to public inspection and available by electronic request.

For limited public works projects, the County may waive the payment and performance bond requirements of chapter 39.08 RCW and the retainage requirements of chapter 60.28 RCW, thereby assuming the liability for the contractor's nonpayment of laborers, mechanics, subcontractors, material

men, suppliers, and taxes imposed under Title 82 RCW that may be due from the contractor for the limited public works project. However, the County shall have the right of recovery against the contractor for any payments made on the contractor's behalf.

The County shall maintain a list of the contractors contacted and the contracts awarded during the previous 24 months under the limited public works process, including the name of the contractor, the contractor's registration number, the amount of the contract, a brief description of the type of work performed, and the date the contract was awarded.

D. ~~Otherwise apply the provisions of WCC 3.08.090 (B), (E), (F), (G), (H), (I), (J), and (M).~~ **Determining Lowest Responsible Bidder/Award.** Public works contracts under this section shall be awarded to the lowest responsible bidder provided that, whenever there is a reason to believe that the lowest acceptable bid is not the best price obtainable, all bids may be rejected and the County may call for new bids. A responsible bidder shall be a registered or licensed contractor who meets the mandatory bidder responsibility criteria established by Chapter 133, Laws of 2007 (SHB 2010) and who meets any supplementary bidder responsibility criteria established by the County.

E. ~~Forgo the advertisement of a contract awarded through use of the small works roster.~~ Unless otherwise addressed in this section, the provisions of WCC 3.08.090 (B), (E), (G), (H), (I), (J), and (M) shall apply. (Ord. 2016-032 Exh. A; Ord. 2013-029 Exh. A; Ord. 2007-004 Exh. A; Ord. 97-034 Exh. A).

NEW SECTION UNDER WCC 3.08

3.08.096 Consultant roster contract award process for architectural, engineering, and other professional services.

As an alternative to the requirements of WCC 3.08.060 and 3.08.090, this section may be utilized to acquire consultant services. Consultant services include professional services. Professional services are those services that have a primarily intellectual output or product and include, but are not limited to, services provided by architects, engineers, surveyors, doctors, trainers, tax professionals, accountants, and management, labor and financial advisors.

To use the consultant roster contract-award process provided for by this section the following procedures shall be followed:

A. Publication. At least once a year the County or its designee shall publish in a newspaper of general circulation within the municipality's jurisdiction a notice of the existence of the consulting services roster and solicit the names of consultants for the consulting services roster. The County or its designee shall add responsible consultants to the consulting services roster at any time that a consultant completes the online application provided by the County or its designee, upload a Statement of Qualifications, and meets minimum State requirements for roster listing.

B. Review and Selection of the Statement of Qualifications Proposals for professional services. The County shall use the following process to select the most highly qualified consultant off of the Consulting Services Roster to provide the required services:

1) The department head shall have established criteria that must be consider in evaluating consultants for a given project. Consultant rate may be considered for services other than architectural, engineering, landscape architectural, and surveying. Criteria for architectural, engineering, landscape architecture, or surveying services shall include a plan to ensure that minority and women-owned firms and veteran-owned firms are afforded the maximum practicable opportunity to compete for and obtain

public contracts. The level of participation by minority and women-owned firms and veteran-owned firms shall be consistent with their general availability within the jurisdiction of the county.

2) The department head shall evaluate the written statements of qualifications and performance data on file with the county at the time that consultant services are required;

3) Such evaluations shall be based on the criteria established by the department head.

4) The department head shall conduct discussions with one or more consultant regarding anticipated concepts and the relative utility of alternative methods of approach for furnishing the required services.

5) The consultant deemed most highly qualified by the agency to do the project will be selected. The department head shall negotiate with the selected firm for a contract at a price that he/she determines is fair and reasonable, considering the estimated value of the services to be rendered as well as the scope and complexity of the project. If a satisfactory contract cannot be negotiated, the department head terminates the negotiations with that firm and attempts to negotiate a contract with the next most qualified firms. The process continues until an agreement is reached or the search is terminated.

C. In those instances where provisions of Chapter 3.08 WCC are inconsistent with the provisions of this section, the provisions of this section shall control..



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
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Agenda Bill Master Report

File Number: AB2021-606

File ID:	AB2021-606	Version:	1	Status:	Agenda Ready
File Created:	10/15/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: cstrong@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance adopting amendments to the Whatcom County Code Title 20, Zoning, to provide additional affordable housing options, including allowing and regulating tiny homes and allowing duplexes in planned unit developments

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options by allowing and regulating tiny homes and allowing duplexes in planned unit developments.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
10/26/2021	Council	WITHDRAWN	

Attachments: Staff report, Proposed ordinance, Exhibit A

**Whatcom County
Planning & Development Services
Staff Report**

Affordable Housing Options

I. File Information

File #: PLN2021-00012

File Name: Affordable Housing Options

Applicant: Whatcom County Planning and Development Services (PDS)

Project Summary: Proposed amendments to the Whatcom County Code Title 20 (Zoning) to provide additional affordable housing options by allowing and regulating tiny homes and allowing duplexes in planned unit developments.

Location: Countywide.

Attachments

- Draft Ordinance
- Exhibit A – Proposed Amendments

II. Background

The Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes within mobile home or RV parks or on individual lots, as newly authorized under amendments to RCW 58.17.040 via ESSB 5383. Staff is also proposing amendments to the Planned Unit Development (PUD) code to allow and encourage duplexes in urban growth areas. Both are intended to provide additional affordable housing options for Whatcom County citizens.

Tiny Homes

What are Tiny Homes?

To decipher how best to develop the regulatory structure to allow tiny homes, staff first identified the key characteristics of the various types of tiny homes to compare with our existing types of analogous residential units. Broadly, but in more detail in Table 1, these characteristics have to do with what type of state or federal license or certification they can obtain, whether or not they're self-contained¹, and whether they have chassis and axles/wheels, all of which have to do with whether they are intended or can be used for long-term (residential) or short-term (recreational) use. There are other differences, like how much insulation they have or whether they have basic sanitary facilities such as toilets, showers, and sinks, but these are built into the certification/licensing standards and the characteristics we've used seem to suffice for classification.

¹ Meaning do they have tanks to hold water and sewage and have batteries for power, or do they need to be connected to utilities to operate?

Based on this analysis, we have identified four types of tiny homes, each corresponding to one of our existing unit types. The two that are intended for long-term residential use are:

- *Site-Built Tiny Homes* are built on-site, are not self-contained, are intended for long-term use, and meet the International Residential Code (IRC) standards. They are analogous to standard site-built homes, except that they're smaller (< 400 sq. ft.).
- *Manufactured Tiny Homes* are built off-site (generally at a manufacturing plant) with a chassis, axles, and wheels and transported to their final location (though the wheels may be removed) where the unit is placed on a permanent foundation. They are not self-contained, are intended for long-term use, and would have to meet the IRC standards *or* be HUD certified *and* be L&I certified as a permanent dwelling unit. They are analogous to standard mobile (or manufactured) homes, except that they're smaller.

The other types of tiny homes that are getting a lot of interest are Tiny Homes on Wheels (or THOWs, and yes, a real acronym). These tend to be homemade but, because of their construction standards, they are only intended and can only be certified for short-term recreational use or occupancy. But even among them, based on key characteristics, there are two different types. We're designating them:

- *Type 1 Tiny Homes on Wheels* have a chassis, axles, and wheels and are intended for trailering. They are *not* self-contained so must be hooked up to utilities. They do not meet the IRC standards nor are they certified by HUD for long-term residential use, but can be certified by L&I for short-term recreational use. And they must be licensed by the state Department of Licensing for transport on the highways. They are analogous to park model trailers.
- *Type 2 Tiny Homes on Wheels* are similar to Type 1 THOWs, but *are* self-contained, meaning they have tanks to hold water and sewage and have batteries for power so that they don't always need to be connected to utilities. They do not meet the IRC standards nor can they be certified by HUD for long-term residential use, but can be certified by L&I for short-term recreational use. And they must be licensed by the state Department of Licensing for transport on the highways. They are analogous to recreational vehicles (RVs).

Regarding building permit requirements, please note that the Council already adopted the newest International Residential Code, including Appendix Q, which contains the building code rules for tiny homes.

We would also like to point out that staff met several times with some tiny home proponents who proposed a third type of THOW. This type wouldn't meet IRC or HUD standards, but would be based on standards we specifically adopt in our code. These standards, they claimed, would be based on ANSI standards (what L&I uses to certify RVs) plus some additional standards (they referred to them as ANSI++) and our Building Official would have to certify them for use in Whatcom County. However, this approach would create significant jurisdictional regulatory inconsistencies since such units wouldn't be able to be used in any other jurisdiction (including the cities in Whatcom County) as they would only be "certified" for use in unincorporated Whatcom County under our own unique standards.

These proponents were also asking that these types of THOWs be able to be used for guest lodging for longer than 120 days², which is our standard "temporary recreational occupancy" time limit under existing code. Extending temporary recreational occupancy would essentially make these THOW's

² For all Temporary Recreational Occupancies – On individual lots, the maximum length of stay of any recreational vehicle on a lot may not exceed a total of 120 days per calendar year; provided, that no accessory guest RV shall remain on the subject lot for more than 14 consecutive days nor more than 30 days total per calendar year.

permanent accessory dwelling units and raise potential GMA challenges and cause greater impacts that come with such increased densities, especially in rural areas.

Council should also be aware that staff tried very hard to figure out a way to allow “tiny home villages” (including those allowing site built tiny homes) in rural areas. However, GMA rural density restrictions significantly limit the potential for such “villages” in rural areas—meaning they would have to meet the underlying rural low density zoning just like any other subdivision. Our conclusion was that such tiny home villages are more likely to be created in cities or UGAs (which allow higher urban densities) and then only when adequate utilities are available, which our cities generally won’t extend until the property is annexed. But we do have existing (nonconforming at least in terms of density) mobile home and RV parks, so allowing the appropriate type of tiny homes within them at least furthers the affordable housing goal.

Allowing Duplexes in Planned Unit Developments

Another amendment proposed as a way to increase affordable housing options is to allow duplexes in certain zones when a project is developed as a Planned Unit Development (PUD) (WCC Chapter 20.85). PUDs:

- Allow certain uses beyond those allowed in the underlying zone when a project is developed as a planned neighborhood community;
- Can only be developed within Urban Growth Areas and have to be at least two acres in size (except under certain conditions listed in WCC 20.85.020);
- Have additional standards for buffering, open space, circulation, access, parking, storage, and utilities;
- Allow for increased densities (WCC 20.85.108);
- Allow a relaxation of dimensional standards (WCC 20.85.109); and,
- Can only be approved by Council.

Currently PUDs allow single-family and multi-family residential uses, but not duplexes. To rectify this incongruity and help promote affordable housing, staff is proposing amendments to WCC 20.85.050.

Table 1. Defining characteristics of the various types of "homes"

Characteristic	Site-Built Home	Site-Built Tiny Home	Manufactured (Mobile) Home	Manufactured Tiny Home	Park Model Trailer	Type 1 Tiny Home on Wheels	Recreational Vehicle	Type 2 Tiny Home on Wheels
Meets IRC standards for permanent dwelling unit	Yes	Yes	Yes	Yes	No	No	No	No
OR Is HUD certified	No	No	Yes	Yes	No	No	No	No
Is L&I certified for Use ³	No	No	Yes, as a permanent dwelling unit	Yes, as a permanent dwelling unit	Yes, for recreational use	Yes, for recreational use	Yes, for recreational use	Yes, for recreational use
Is DOL licensed	No	No	No	No	No	No	Yes	Yes
Is intended/ licensed for long-term or short-term residential use	long-term	long-term	long-term	long-term	short-term	short-term	short-term	short-term
Is self-contained (wastewater, water, power) (if not, must be connected to utilities)	No	No	No	No	No	No	Yes	Yes
Has chassis and axles/wheels	No	No	Yes when manufactured, but wheels removed once sited	Yes when manufactured, but wheels removed once sited	Yes, when manufactured, but wheels removed once sited	Yes, when manufactured, but wheels removed once sited	Yes	Yes

³ Certified as a (long-term) permanent dwelling unit or for (short-term) recreational use, as noted.

III. Amendments

The proposed amendments are found in Exhibit A. Please refer to that attachment; explanations are provided therein. Here is an overview, though.

Proposed Tiny Home Regulatory Structure

Based on the characteristics shown in Table 1 each of the four types of tiny homes corresponds or is analogous to a type of (either long- or short-term) residence that the County already regulates. Thus, to simplify or streamline the means to regulate these units, we can just define each of these types of tiny homes as one of our existing types and they would be regulated under existing regulations for that type.

So staff is proposing to add definitions for each of the types: “Tiny Homes,” with subcategories for “site-built tiny homes” and “manufactured tiny homes”; and “Tiny Homes on Wheels,” with subcategories for “Type 1 THOWs” and “Type 2 THOWs” (see Exhibit A, §20.97.435.03 & §20.97.435.04). Then we’re proposing to amend the definitions for “Mobile Home” to include “Manufactured Tiny Homes” (Exhibit A, §20.97.250), “Recreational Vehicle” to include “Type 2 THOWs” (Exhibit A, §20.97.335), and “Park Model Trailer” to include “Type 1 THOWs” (Exhibit A, §20.97.292) (plus some grammatical edits).

With these definitional amendments, each of these tiny home types would then be allowed wherever their existing corresponding standard type is allowed under existing code:

- Site-built tiny homes would generally be allowed wherever and under whatever circumstances and standards standard site-built homes are allowed (either as a primary use or an accessory dwelling unit (ADU));
- Manufactured tiny homes would generally be allowed wherever and under whatever circumstances and standards standard mobile (or manufactured) homes are allowed (as a primary use, an ADU, or in a mobile home park);
- Type 1 THOWs would generally be allowed wherever and under whatever circumstances and standards park model trailers are allowed (as temporary guest lodging or in an RV park in a space designated for park models, meaning they have utility hookups); and,
- Type 2 THOWs would generally be allowed wherever and under whatever circumstances and standards recreational vehicles are allowed (as temporary guest lodging or in an RV park).

Table 2 more specifically identifies in which zones the various tiny home types would be allowed, as what type of use, and what permit would be required. These are identical to where we currently allow their existing counterpart (single-family residences, mobile homes, park model trailers, and recreational vehicles). Do note, however, that for simplicity’s sake there may be additional standards or requirements in some zones not shown in the table, but they’d be the same as for their counterparts.

Apart from these definitional amendments, staff is also proposing to clarify our Mobile Home and RV Park Standards. First, we’re proposing to separate the two into distinct sections. We’re also identifying the process by which such a park can be permitted (binding site plan or condominium), and that CC&R’s must be submitted and approved (so that we can ensure long-term maintenance and operations are dealt with properly). Apart from that, we’re keeping the rules that applied to both in both, but putting the rules that only apply to one type of park in their respective sections. (See Exhibit A, §20.80.950 and §20.80.955.)

Under the proposed regulations, one could develop a mobile home park for mobile homes, manufactured tiny homes, or a mix of the two; and an RV park for RV’s, Type 2 THOWs, or a mix of the two. Mobile home parks are allowed as a conditional use in the Resort Commercial (RC), Urban

Residential Mixed (UR-MX), and Urban Residential – Medium Density (URM) Districts. Recreational vehicle (RV) parks are allowed as a conditional use in the Resort Commercial (RC), Tourist Commercial (TC), and Point Roberts Special Districts.

Table 3 shows how many mobile home and RV parks currently exist in the County. In total there are 39 mobile home parks and 7 RV parks, containing 2,858 spaces, 1,881 of which can be used for park models or Type 1 THOWS.

Duplexes in Planned Unit Developments

While most of the changes to WCC 20.85.053 shown in Exhibit A are just cleaning up grammar, the two that are policy changes are where “duplexes” has been added to subsections (1) and (2).

IV. Comprehensive Plan Evaluation

The proposed amendments to the regulations (WCC Title 20) have been developed using the guidance of the Comprehensive Plan so as to remain consistent. Particularly relevant are:

Goal 3C: **Create opportunity for a broad range of housing types and encourage mixed affordability.**

Policy 3C-1: Support lot clustering, varied lot sizes, small-scale multi-family dwellings, accessory housing, especially accessory dwelling units (ADUs) in single-family zoning, and reductions in infrastructure requirements for subdivisions as incentives for development of housing obtainable by purchasers with the greatest possible mix of needs and household incomes.

Policy 3C-3: Support development of manufactured and mobile home parks and establish design criteria that will enable them to fit into the surrounding community.

Goal 3E: **Provide for future housing needs by responding to changing household demographics.**

Policy 3E-1: Review and revise existing regulations to identify inhibitions to housing for the varying preferences of those needing housing. Focus on population segments with particular needs such as temporary, transitional, or emergency housing.

Goal 3F: **Provide incentives to create affordable housing.**

Policy 3F-3: Support innovative housing ideas including co-housing (essentially a micro-community with some centralized facilities), elder cottages (housing units for healthy but aging family members), accessory dwelling units (ADUs) in single family zoning of all jurisdictions, including cottage designs available at planning department front desk, and shared living residences or group quarters in UGAs, and educate the public about them.

Table 2. Zoning Districts where Tiny Homes would be allowed (and by what Permit⁴) under the proposed rules

Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Urban Residential (UR)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit⁵ (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence⁶ (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM)
Urban Residential – Medium Density (URM)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (AAU) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Urban Residential Mixed (UR-MX)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (AAU) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Residential Rural (RR)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) Temporarily within pre-existing recreational subdivisions of the Foothills Subarea (ADM)
Rural Residential-Island (RR-I)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> Temporary Caregiver/ Invalid Residence (ADM)
Eliza Island (EI)	<ul style="list-style-type: none"> Primary residence (P) 	<ul style="list-style-type: none"> Primary residence (P) 		

⁴ P = Permitted; ACC = Accessory Use; ADM = Administrative Approval; CUP = Conditional Use

⁵ For all ADUs – Some zoning districts have a minimum lot size requirement for detached ADUs and some areas require that accessory apartments and detached ADUs are consistent with the underlying zoning.

⁶ For all Temporary Caregiver/Invalid Residences – One year, renewable, plus additional standards.

Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Rural (R)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Temporary Recreational Occupancy (P)
Point Roberts Transitional Zone (TZ)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM)
Agriculture (AG)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Farm Worker Residence (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Farm Worker Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Farm Worker Residence (ADM)
Rural Forestry (RF)	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> • Primary residence (P) • Accessory Dwelling Unit (ADM) • Forestry Worker Residence (ADM) • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) 	<ul style="list-style-type: none"> • Temporary Caregiver/ Invalid Residence (ADM) • Temporary Recreational Occupancy⁷ (P) • Recreational Vehicle Parks (CUP) • Temporarily⁸ in an RV Park (P)
Commercial Forestry (CF)				<ul style="list-style-type: none"> • Temporary (6 mos.) living quarters for trail crews, fire crews, nursery crews, logging crews, maintenance crews and watchmen (P)
Recreation & Open Space (ROS)	<ul style="list-style-type: none"> • Caretaker's Residence (P) 	<ul style="list-style-type: none"> • Caretaker's Residence (P) 		
Rural General Commercial (RGC)				
Neighborhood Commercial Center (NC)				

⁷ For all Temporary Recreational Occupancies – On individual lots, the maximum length of stay of any recreational vehicle on a lot may not exceed a total of 120 days per calendar year; provided, that no accessory guest RV shall remain on the subject lot for more than 14 consecutive days nor more than 30 days total per calendar year.

⁸ In RV Parks the maximum length of stay may not exceed 180 days for any one-year time period.

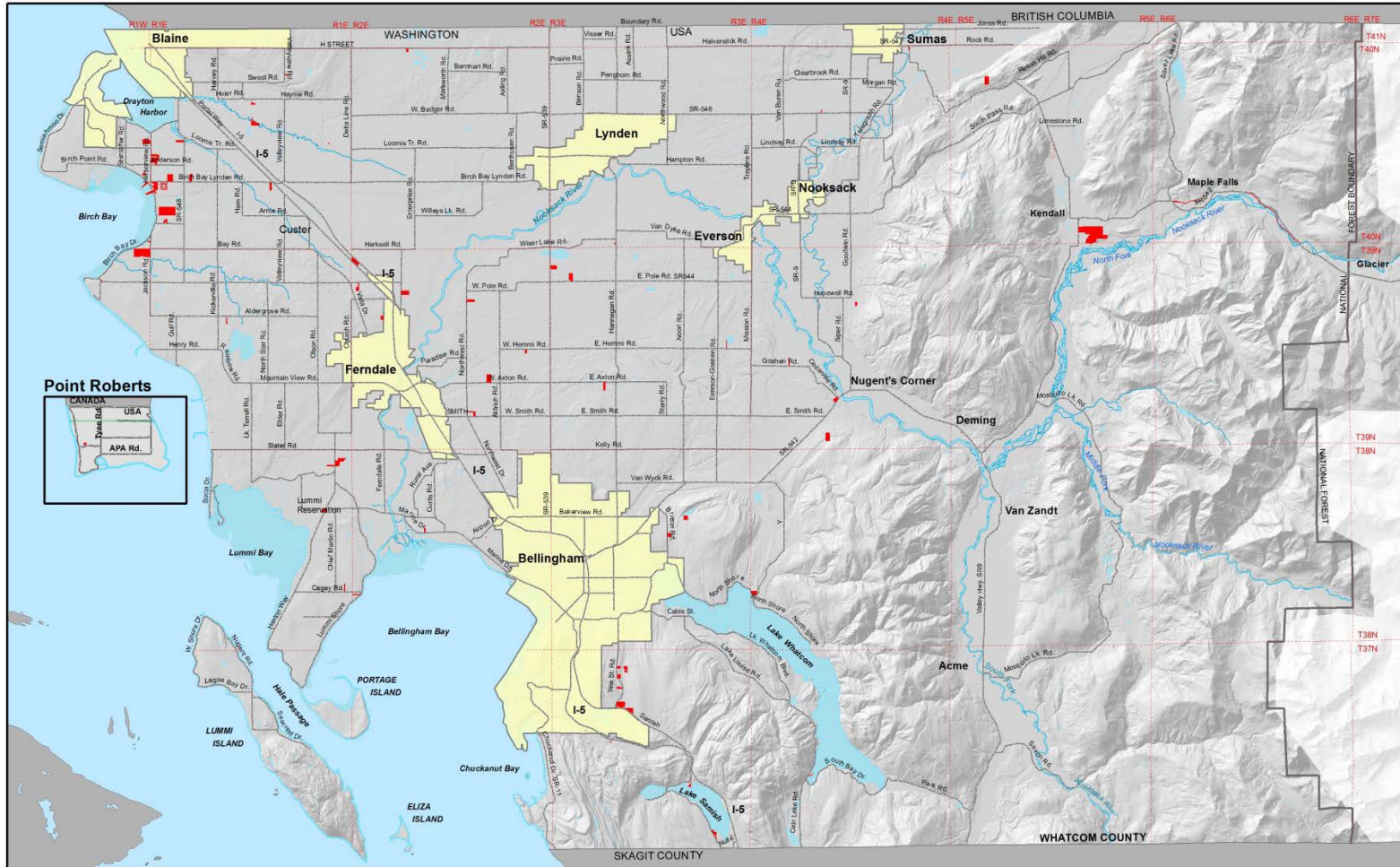
Zoning District	Tiny Home Type			
	Site-Built Tiny Homes	Manufactured Tiny Homes	Type 1 Tiny Homes on Wheels	Type 2 Tiny Homes on Wheels
Small Town Commercial (STC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 		<ul style="list-style-type: none"> Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
General Commercial (GC)				
Tourist Commercial (TC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
Resort Commercial (RC)	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) 	<ul style="list-style-type: none"> Primary residence (P) Accessory Dwelling Unit (ADM) Mobile Home Parks (CUP) Sited in a Mobile Home Park (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Temporary Recreational Occupancy (P) Recreational Vehicle Parks (CUP) Temporarily in an RV Park (P)
Light Impact Industrial (LII)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
General Manufacturing (GM)				
Heavy Impact Industrial (HII)				
Rural Industrial And Manufacturing (RIM)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
Airport Operations (AO)	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 	<ul style="list-style-type: none"> Security/Caretaker Residence (ACC) 		
Point Roberts Special District (overlay zone)	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone, plus: Temporary Recreational Occupancy (P) 	<ul style="list-style-type: none"> Allows whatever is allowed in the underling zone, plus: Temporary Recreational Occupancy (P)
Cherry Point Industrial (CP)				

Table 3. Mobile Home & RV Parks in Whatcom County

Name	Type	Zone	Acres	Assessor LUCODE	Total No. of Units	No. of Park Model Spaces	No. of MH Spaces
Agate Bay Mobile Estates	MH Park - Leased Spaces	R5A	10.9	1525 M/H PK 25 SP	25		25
Baywood MHP	MH Park - Leased Spaces	URM6	23.4	1599 M/H PK+99 SP	47		47
Birch Bay Retirement Park	MH Park - Leased Spaces	UR4	3.9	1518 M/H PK 18 Sp	17		17
Birch Bay Trailer Court	MH Park - Leased Spaces	RC	33.9	1152 M/H IO-inPK	151	18	133
Britton Rd. MH Court	MH Park - Leased Spaces	UR	4.8	1500 M/H PK	4		4
Calmore Cove MHP	MH Park - Leased Spaces	RR2/R2A	15.8	1545 M/H PK 45 SP	41	5	36
Cedar Grove MHP	MH Park - Leased Spaces	R10A	26.3	1599 M/H PK+99 SP	105		105
Double L Ranch MHP	MH Park - Leased Spaces	R5A	15.3	1524 M/H PK 24 SP	24	2	22
Edgewater Resourt MHP	MH Park - Leased Spaces	RC	4.8	1547 M/H PK 47 SP	25	12	13
Evergreen Manor MHP	MH Park - Leased Spaces	R5A	19.6	1560 M/H PK 60 SP	43		43
Evergreen Retreat MHP	MH Park - Leased Spaces	R10A	1.5	1516 M/H PK 16 SP	16		16
Fairfield Mobile Court	MH Park - Leased Spaces	UR4	10.2	1526 M/H PK 26 SP	17		17
Forest Park MHP	MH Park - Leased Spaces	URMX6-12	5.6	1553 M/H PK 53 SP	50		50
Gulfside MHP	MH Park - Leased Spaces	RR1	1.0	1505 M/H PK 5 SP	4		4
Harborview MHP	MH Park - Leased Spaces	R5A	19.9	1516 M/H PK 16 SP	15		15
Hartvig MHP	MH Park - Leased Spaces	UR4	6.1	1508 M/H PK 8 SP	7		7
Hidden Valley MHP	MH Park - Leased Spaces	R5A	1.3	1508 M/H PK 8 SP	6	4	2
Hidden Village Estates	MH Park - Leased Spaces	R2A	14.6	1599 M/H PK+99 SP	12	2	10
Hilltop Haven MHP	MH Park - Leased Spaces	URM6-12/R10A	8.5	1525 M/N PK 25 SP	25		25
Lake Terrell Mobile Ranch	MH Park - Leased Spaces	R5A	5.0	1516 M/H PK 16 SP	7		7
Larsens Mobile Manor	MH Park - Leased Spaces	RR2A	9.3	1555 M/H PK 55 SP	55		55
Mantheys MHP	MH Park - Leased Spaces	R10A	23.2	1557 M/H PK 57 SP	57		57
Maple Leaf Court	MH Park - Leased Spaces	R10A	9.6	1522 M/H PK 22 SP	22		22
Maplewood Meadows	MH Park - Leased Spaces	R5A	20.4	1520 M/H PK 20 SP	19		19
Marine Dr. MHP	MH Park - Leased Spaces	RR2A	4.3	1511 M/H PK 11 SP	10		10
Mobile Home Manor	MH Park - Leased Spaces	AG	1.3	1511 M/H PK 11 SP	11		11
Mt. Baker MHP	MH Park - Leased Spaces	R5A	8.5	1530 M/H PK 30 SP	20		20
Nooksack Valley MHP	MH Park - Leased Spaces	AG	1.7	1507 M/H PK 7 SP	7		7
NW Mobile Park	MH Park - Leased Spaces	AG	11.8	1526 M/H PK 26 SP	27		27

Plaza Park	MH Park - Leased Spaces	R5A	14.1	1591 M/H PK 91 SP	27	2	25
Royal Coachman Mobile Estates	MH Park - Leased Spaces	R5A	9.9	1528 M/H PK 28 SP	28		28
See Haven MHP	MH Park - Leased Spaces	UR4	1.3	1512 M/H PK 12 SP	9		9
Sumas MHP	MH Park - Leased Spaces	AG	2.1	1508 M/H PK 8 SP	8		8
Sunny Point Trailer Park	MH Park - Leased Spaces	STC	4.2	1508 M/H PK 8 SP	2		2
Gulf Aire Condo	MH Park - Owned Spaces	TZ		1417 M/H IN CONDO PP	16		16
Lake Samish Terrace	MH Park - Owned Spaces	RR2		1417 M/H IN CONDO PP	53		53
Latitude 49 Resort Park Condo	MH Park - Owned Spaces	RC		1418 PRK MOD IN CONDO RP	315	315	0
Smallwood Shores Condo	MH Park - Owned Spaces	R5A		1416 M/H IN CONDO RP	10		10
Wildwood Resort Condo	MH Park - Owned Spaces	R5A		1418 PRK MOD IN CONDO RP	84	84	0
Beachwood Resort	RV Park	URM6	76.6	7516 RV PARKS	326	326	
Birch Bay Leisure Park	RV Park	URM6	81.1	7816 RV PARKS	603	603	
Black Mt. Ranch	RV Park	R5A	171.7	7499 OTHER RECREAT	315	315	
North Bay Park	RV Park	URM6	2.5	7516 RV PARKS	33	33	
Richmond Resort	RV Park	RC	1.4	7516 RV Parks	10	10	
Sea Breeze RV Park (PM within RV Park)	RV Park	RC	7.9	1155 PM IO-in PK	4	4	
Whatcom Meadows	RV Park	R5A	159.1	7519 OTHER RESORTS	146	146	
Total					2858	1881	977

Table 4. Locations of Mobile Home and RV Parks in Whatcom County



Whatcom County

Legend

Mobile Home Park

June 2021

USE OF WHATCOM COUNTY'S GIS DATA IMPLIES THE USER'S AGREEMENT WITH THE FOLLOWING STATEMENT: Whatcom County disclaims any warranty of merchantability or warranty of fitness of this map for any particular purpose, either express or implied. No representation or warranty is made concerning the accuracy, currency, completeness or quality of data depicted on this map. Any user of this map assumes all responsibility for use thereof, and further agrees to hold Whatcom County harmless from and against any damage, loss, or liability arising from any use of this map.

0 0.75 1.5 3 4.5 6 Miles



V. Draft Findings of Fact and Reasons for Action

Staff recommends the Council adopt the following findings of fact and reasons for action:

1. The County Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.
2. Additionally, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options.
3. PDS submitted an application (PLN2021-00012) to make amendments to Whatcom County's zoning regulations (WCC Title 20) to provide these affordable housing options.
4. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on May 20, 2021.
5. Notice of the subject amendments was submitted to the Washington State Department of Commerce on May 20, 2021, for their 60-day review.
6. On June 24, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed amendments.
7. The County Council held a duly noticed public hearing on the proposed amendments on October 29, 2021, and reviewed and considered the Planning Commission recommendation, staff recommendations, and public comments on the proposed amendments.
8. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.
9. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

VI. Proposed Conclusions

1. The amendments are in the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

VII. Recommendations

1. Planning and Development Services recommends that the Council adopts the proposed regulations shown in Exhibit A.
2. The Planning Commission voted 7-0 to recommend approval of the proposed amendments to the County Council.

PROPOSED BY: _____
INTRODUCTION DATE: _____

ORDINANCE NO. _____

ADOPTING AMENDMENTS TO WHATCOM COUNTY CODE TITLE 20 ZONING TO PROVIDE ADDITIONAL AFFORDABLE HOUSING OPTIONS, INCLUDING ALLOWING AND REGULATING TINY HOMES AND ALLOWING DUPLEXES IN PLANNED UNIT DEVELOPMENTS

WHEREAS, The County Council is interested in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.

WHEREAS, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options; and,

WHEREAS, The Whatcom County Council reviewed and considered Planning Commission recommendations, staff recommendations, and public comments on the proposed amendments; and

WHEREAS, The County Council hereby adopts the following findings of fact:

FINDINGS OF FACT

1. The County Council has expressed interest in increasing affordable housing options, in particular by amending the Whatcom County Code to allow for the siting of tiny homes.
2. Additionally, Planning and Development Services (PDS) has identified that in addition to allowing single- and multi-family dwellings in Planned Unit Developments, allowing duplexes would also increase affordable housing options.
3. PDS submitted an application (PLN2021-00012) to make amendments to Whatcom County's zoning regulations (WCC Title 20) to provide these affordable housing options.
4. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on May 20, 2021.
5. Notice of the subject amendments was submitted to the Washington State Department of Commerce on May 20, 2021, for their 60-day review.
6. On June 24, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed amendments.
7. The County Council held a duly noticed public hearing on the proposed amendments on October 23, 2021, and reviewed and considered the Planning Commission recommendation, staff recommendations, and public comments on the proposed amendments.
8. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.
9. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

CONCLUSIONS

1. The amendments to the development regulations are in the public interest.

2. The amendments are consistent with the Whatcom County Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

Section 1. Amendments to the Whatcom County Code are hereby adopted as shown in Exhibit A.

Section 2. Staff is authorized to work with Code Publishing to correct and update any cross-references made ineffective by these amendments.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED as to form:

() Approved () Denied

Civil Deputy Prosecutor

Satpal Sidhu, Executive

Date: _____

Exhibit A: Proposed Amendments to the Whatcom County Code to Allow and Regulate Tiny Homes & to Allow Duplexes in Planned Unit Developments

Regarding Tiny Homes:

TITLE 20 ZONING

Chapter 20.80 Supplementary Requirements

20.80.950 Mobile Home (including Manufactured Tiny Home) and Recreational Vehicle Park Standards.

All mobile home ~~and recreational vehicle~~ parks shall meet the following standards:

- (1) Mobile home parks shall be developed through either a Binding Site Plan pursuant to WCC Title 21 (Land Division) or by condominium pursuant to Chapter 64.34 RCW (Condominium Act). In either case:
 - (a) An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.
 - ~~(a)~~(b) A declaration of covenants addressing and ensuring long-term compliance with the appropriate requirements herein shall be submitted for review and approval.
 - (c) Each rental or lease space shall be numbered on the site plan and the number shall be prominently displayed on the site.
- (2) Where not specified by the applicable zoning district, mobile home parks shall have:
 - (a) A maximum density of ~~seven~~ 7 lease spaces per acre when public water and sewer are provided;
 - (b) A maximum density of ~~three~~ 3 lease spaces per acre when public water and sewer are not provided;
 - (c) A minimum parcel size of ~~two~~ 2 acres.
- ~~(3) Where not specified by the applicable zoning district, recreational vehicle parks shall have:~~
 - ~~(a) A maximum density of 15 lease spaces per acre when public water and sewer are provided;~~
 - ~~(b) A maximum density of seven lease spaces per acre when public water and sewer are not provided;~~
 - ~~(c) A minimum parcel size of two acres.~~
- ~~(4)~~(3) Mobile home parks shall provide storage area for boats, recreational vehicles, and other large items. Recreational vehicle parks may provide such storage areas. Said storage areas shall be screened consistent with these standards.
- ~~(5)~~(4) Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property. Within a mobile home park, no mobile home, other major structure, or outdoor storage shall be located closer than 20 feet to the perimeter of the site.

Comment [CES1]: Mobile home and RV park standards have been separated into 2 sections, with the appropriate existing & new rules placed into each

Comment [CES2]: A requirement of ESSB 5383 for tiny home parks (and it should be for mobile home parks).

~~(6)~~(5) Along the edges of mobile home parks, walls or vegetative screening shall be provided where needed to protect residents from undesirable views, lighting, noise, or other off-site influences, or to protect occupants of adjoining property from potentially adverse influences within the mobile home park. In particular, extensive off-street parking areas and service areas for loading and unloading other than passenger vehicles, and for storage and collection of trash and garbage, shall be screened.

~~(7)~~ A 30-foot landscaped buffer area or screening composed of suitable native vegetation shall be placed around all common storage areas and at all perimeters of any recreational vehicle park. The purpose of said buffer is to protect on a year-round basis the adjacent property or roadways from unsightliness, visual distraction and/or noise impacts. The buffer area may be reduced where it can be demonstrated that alternative screening can adequately accomplish the purposes stated in this subsection. Perimeter buffers shall be supplemented by a fence or other device where trespass is a potential problem. No structures, development or other activities shall occur within any buffer areas; provided, that trails may be located within those buffer areas which are at least 50 feet in width.

~~(8)~~(6) There shall be landscaping developed consistent with WCC 20.80.300 ([Landscaping](#)) within open areas of ~~the mobile home park and recreational vehicle~~ parks not otherwise used for park purposes. Such open areas and landscaping shall be continually and properly maintained.

~~(9)~~(7) Mobile homes ~~and recreational vehicle~~ parks shall keep 40% ~~percent~~ of the site free of buildings, structures, parking areas, and other impervious surfaces.

~~(10)~~ ~~An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.~~

~~(11)~~(8) On-site recreational amenities with at least one substantial facility serving the users of a park or identified area shall be provided. Such substantial facilities may include tennis courts, children's play areas with equipment, or a swimming pool. The type and size of facility shall be appropriate to the type and amount of clientele being served.

~~(12)~~ ~~Maximum length of stay in recreational vehicle parks shall not exceed 180 days for any one-year time period.~~

~~(13)~~(9) Interior roads within mobile home ~~and recreational vehicle~~ parks shall be private, unless the County Engineer determines that the development of public roads is necessary.

~~(14)~~(10) For each mobile home space there shall be provided and maintained at least two parking spaces conforming ~~with to zoning ordinance~~ the requirements of WCC 20.80.500, et seq. (Off-Street Parking and Loading Requirements). In addition to occupant parking, guest and service parking shall be provided within the boundaries of the park at a ratio of one parking space for each two mobile home spaces.

~~(15)~~(11) There shall be a minimum of 10 feet of separation maintained between all mobile homes on the site. Accessory structures may be located no closer than 10 feet to any mobile home or five feet to other accessory structures.

~~(12)~~ Each rental space shall be numbered on the site plan and the number shall be prominently displayed on the site. All mobile home parks shall comply with WCC Chapter 24.04 (Recreational Vehicle Park and Subdivision Rules) regarding utility provision. Utility (wastewater, water, electricity) hook-ups shall be provided for each rentable or leasable space.

Comment [CES3]: Moved above

20.80.955 Recreational Vehicle (including Tiny Homes on Wheels) Park Standards.

All recreational vehicle parks shall meet the following standards:

- (1) Recreational vehicle parks shall be developed through either a Binding Site Plan pursuant to WCC Title 21 (Land Division) or by condominium pursuant to Chapter 64.34 RCW (Condominium Act). In either case:
 - (a) An organization or individual with proper funding to maintain common facilities and operate the parks shall be provided.
 - (b) A declaration of covenants addressing and ensuring long-term compliance with the appropriate requirements herein shall be submitted for review and approval.
 - (c) Each rental or lease space shall be numbered on the site plan and the number shall be prominently displayed on the site.
- (2) Where not specified by the applicable zoning district, recreational vehicle parks shall have:
 - (a) A maximum density of 15 lease spaces per acre when public water and sewer are provided;
 - (b) A maximum density of 7 lease spaces per acre when public water and sewer are not provided;
 - (c) A minimum parcel size of 2 acres.
- (3) Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property.
- (4) A 30-foot landscaped buffer area or screening composed of suitable native vegetation shall be placed around all common storage areas and at all perimeters of any recreational vehicle park. The purpose of said buffer is to protect on a year-round basis the adjacent property or roadways from unsightliness, visual distraction, and/or noise impacts. The buffer area may be reduced where it can be demonstrated that alternative screening can adequately accomplish the purposes stated in this subsection. Perimeter buffers shall be supplemented by a fence or other device where trespass is a potential problem. No structures, development, or other activities shall occur within any buffer areas; provided, that trails that are at least 5 feet in width may be located within those buffer areas.
- (5) There shall be landscaping developed consistent with WCC 20.80.300 (Landscaping) within open areas of recreational vehicle parks not otherwise used for park purposes. Such open areas and landscaping shall be continually and properly maintained.
- (6) Recreational vehicle parks shall keep 40% of the site free of buildings, structures, parking areas, and other impervious surfaces.
- (7) On-site recreational amenities with at least one substantial facility serving the users of a park or identified area shall be provided. Such substantial facilities may include tennis courts, children's play areas with equipment, or a swimming pool. The type and size of facility shall be appropriate to the type and amount of clientele being served.
- (8) Maximum length of stay in recreational vehicle parks shall not exceed 180 days for any one-year time period.
- (9) Interior roads within recreational vehicle parks shall be private, unless the County Engineer determines that the development of public roads is necessary.
- (10) All recreational vehicle parks shall comply with WCC Chapter 24.04 (Recreational Vehicle Park and Subdivision Rules) regarding utility provision. Utility (wastewater, water, electricity) hook-ups shall be provided for each rentable or leasable space designated for park model trailers and Type 1

Comment [CES4]: A requirement of ESSB 5383 for tiny home parks.

Comment [CES5]: Moved from 20.97.340 (definition of RV Park), as these are regulations, not definitions.

Comment [CES6]: A requirement of ESSB 5383 for tiny home parks.

THOWs. Spaces designated solely for self-contained recreational vehicles may use communal facilities.

Chapter 20.97 Definitions

20.97.250 Mobile Home (a.k.a, Manufactured Home).

“Mobile home” means a dwelling unit designed for long-term human habitation by one family and having complete living facilities; constructed and fabricated into a complete unit at a factory and capable of being transported to a location of use on its own chassis and wheels; identified by a model number and serial number by its manufacturer; and designed primarily for placement on an impermanent footing. This includes manufactured tiny homes (see “Tiny Home.”) A unit ~~which that~~ was originally built as a mobile home but ~~which~~ has substantially lost its mobility ~~through by~~ being placed on a permanent footing, the tongue and axle removed, skirting is installed, and ~~which that~~ wholly meets state standards for such units, shall not be considered to be a mobile home and shall be treated as a single-family dwelling for the purpose of this ~~ordinance code only when it is fixed to a permanent footing and tongue and axle have been removed and skirting installed.~~

20.97.255 Mobile Home Park.

“Mobile home park” means any parcel or adjacent parcels of land in the same ownership ~~which that~~ is ~~utilized~~ used for occupancy by more than two mobile homes. This term shall not be construed to mean campgrounds, recreational vehicle parks, or tourist facilities for camping.

20.97.292 Park Model Trailer.

“Park model trailer” means a trailer designed to provide seasonal or temporary living quarters; ~~which are not self-contained and thus may need to be used with~~ temporarily connected ~~editions~~ to utilities ~~necessary~~ for operation of installed fixtures and appliances; ~~it~~ has a gross trailer area not exceeding 400 square feet; ~~or and~~ is approved by the state as a park model trailer. This includes Type 1 THOWs (see “Tiny Home on Wheels”).

20.97.335 Recreational Vehicle.

“Recreational vehicle” means a motor vehicle; or portable structure capable of being transported on ~~the~~ highways by a motor vehicle; ~~that is~~ designed and intended for casual or short-term human occupancy for travel, recreational, and vacation uses without a permanent foundation; identified by a model number (RV), serial number, and vehicle registration number; and equipped with limited water storage and other self-contained living facilities. For the purposes of these regulations, the term “recreational vehicle” shall include self-contained campers, motor-homes, Type 2 Tiny Home on Wheels, and travel trailers, ~~and but~~ shall not include park model trailers or Type 1 Tiny Home on Wheels, as they are not self-contained units.

20.97.340 Recreational Vehicle Park.

“Recreational vehicle park” means a parcel of private land in which three or more contiguous sites are primarily for occupancy by recreational vehicles for travel, recreation, or vacation uses. ~~For~~ Within

mobile home parks, only spaces that are designated and/or are used for recreational vehicles shall constitute a recreational vehicle park. ~~Recreational vehicles set up for occupancy shall be at least 10 feet from each other and any structures on the property. Whether or not intended for occupancy, they shall be at least 10 feet from all structures not on the same property.~~ For the purposes of these regulations, the term “recreational vehicle park” shall include camping clubs.

Comment [CES7]: These are regulations, not definitions, and have been moved to 20.80.955.

20.97.435.03 Tiny Home.

~~A tiny home is a dwelling unit that is 400 square feet or less in floor area (excluding sleeping lofts). For the purposes of this code there are two types of tiny homes, as described below. For Tiny homes on Wheels see WCC 20.97.435.04.~~

Comment [CM8]: This portion matches the definition in appendix Q in the IRC. The size is also consistent with the definition of a park model in WAC 296-150P-00200.

- ~~1. *Site-Built Tiny Home.* A tiny home built on-site on a permanent foundation that meets the minimum requirements of the International Residential Code (IRC), including provisions of Appendix Q, and is reviewed and inspected by Whatcom County. For the purposes of this code they are equivalent to and are permissible under the same rules as any standard single-family dwelling.~~
- ~~2. *Manufactured Tiny Home.* A factory-built tiny home bearing a certification tag from the Washington State Department of Labor and Industries (L&I) or other approved third party inspection agency stating it is approved for use as a single-family residence per the current edition of the International Residential Code (IRC) or Housing and Urban Development (HUD) requirements. Manufactured tiny homes usually have wheels and a chassis when they come out of the factory, and typically have the wheels removed prior to placing it on its manufacturer-approved foundation. For the purposes of this code they are equivalent to and are permissible under the same rules as any standard mobile home.~~

20.97.435.04 Tiny Home on Wheels (THOWs)

~~A Tiny Home on Wheels is a portable structure licensed to be transported on the highways by a motor vehicle; designed and intended for casual or short-term human occupancy for travel, recreational, vacation and other temporary uses without a permanent foundation; in a space of 400 square feet or less in floor area (excluding sleeping lofts). For the purposes of this code there are two types of tiny homes on wheels, as described below.~~

- ~~1. *“Type 1 THOW”* is a THOW that is not self-contained, and thus needs to be temporarily connected to utilities necessary for operation of installed fixtures and appliances. For the purposes of this code they are equivalent to and are permissible under the same rules as for Park Model Trailers.~~
- ~~2. *“Type 2 THOW”* is a THOW that is self-contained and may use communal utility services (water, wastewater). For the purposes of this code they are equivalent to and are permissible under the same rules as for Recreational Vehicles (RVs).~~

Regarding Duplexes in Urban Zones via Planned Unit Developments:

Title 20 ZONING

Chapter 20.85 Planned Unit Developments (PUD)

20.85.050 Permitted Uses.

.051 Uses ~~outright permitted-allowed~~ in a planned unit development shall include those permitted, accessory, and conditional uses allowed in the underlying zone district(s), ~~as well as and~~ such other uses as provided in WCC 20.85.052 ~~to through~~ 20.85.055. For areas located within a Water Resource Protection Overlay District, the more restrictive use provisions of Chapter 20.71 WCC shall apply.

.052 In addition to the uses allowed in the underlying zone, the following uses shall be allowed outright ~~where when~~ they are only serving the planned unit development and ~~where~~ all other applicable standards are met:

- (1) Community buildings;
- (2) Indoor recreation facilities, including athletic clubs or fitness centers, racquetball courts, swimming pools, tennis courts, or other similar uses;
- (3) Outdoor recreation facilities, including swimming pools, tennis courts, recreational trails, or similar use; and
- (4) Recreational vehicle storage areas.

.053 ~~Even though they may not be allowed in the underlying zone(s).~~ A planned unit development may also authorize add the following additional land uses ~~activities, as follows;~~ provided the criteria of WCC 20.85.054 are met:

- (1) ~~For In~~ the Urban Residential and Rural zones, duplexes and multifamily dwellings consistent with the density requirements of the underlying zone, except as that may be modified by the provisions of WCC 20.85.108 (Density Increases). The number of units attached may be greater than would otherwise be allowed by the underlying zoning.
- (2) ~~In For~~ the Urban Residential and Urban Residential Medium zones, duplexes and those uses allowed in the Neighborhood Commercial zone ~~are may~~ also be permitted. In addition, both resort- and non-resort-oriented transient accommodations, such as inns or hotels, may be permitted; provided, that:
 - (a) The total number of sleeping units shall not exceed 50%-percent of the total number of dwelling units that would be allowed on the property by the underlying zone regulations;
 - (b) Each sleeping unit shall count as one dwelling unit for the purpose of determining the total number of dwelling and sleeping units, in combination, permitted on the property;
 - (c) It can be demonstrated that the overall development will not generate more traffic than conventional residential development at the density allowed in the zone.
- (3) ~~In For~~ the General Commercial zone, those uses allowed in the Urban Residential Medium zone are ~~appropriate~~ allowed.
- (4) ~~In For~~ the Resort Commercial zone:

Comment [CES9]: Policy change

Comment [CES10]: Policy change

- (a) Multiple single-family dwellings per lot are permitted if developed as condominiums under state law; and
- (b) Single-family attached dwellings (at a base gross density of ~~seven-7~~ units/acre); ~~and.~~
- (5) ~~In For~~ the Light Impact Industrial zone, those uses allowed in the Urban Residential Medium, Neighborhood Commercial, ~~and/or~~ General Commercial zones are ~~appropriate~~ allowed.

.054 In order ~~to expand for those additional~~ uses listed ~~allowed~~ in WCC 20.85.053 to be authorized, the applicant ~~shall~~ must demonstrate:

- (1) That the primary land use activity of the planned unit development ~~shall be those uses~~ is one allowed by the underlying zone district;
- (2) That the ~~expanded~~ additional uses will benefit and serve the residents or employees of the proposed planned unit development; and
- (3) That all other applicable approval criteria and standards are met.

.055 Where a proposed development is located in two or more zone districts, the uses allowed in the applicable districts may be located on any portion of the site; provided, that all applicable standards are met.

.056 For purposes of determining appropriate standards, the requirements of the zone district allowing the use would apply. If the use is allowed by two or more districts, the lesser standards would apply.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-623

File ID:	AB2021-623	Version:	1	Status:	Agenda Ready
File Created:	10/26/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Authorizing the Levy of Taxes for Countywide Emergency Medical Purposes for 2022

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

The proposed ordinance authorizes the 2022 levy of taxes for Countywide Emergency Medical Purposes

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Proposed Ordinance

PROPOSED BY: Executive
INTRODUCTION DATE: November 09, 2021

ORDINANCE NO. _____
ORDINANCE AUTHORIZING THE LEVY OF TAXES
FOR COUNTYWIDE EMERGENCY MEDICAL PURPOSES FOR 2022

WHEREAS, pursuant to Home Rule Charter Section 6.10 the County Executive is required to submit for Council consideration a budget and proposed tax and revenue ordinances necessary to raise sufficient revenues to balance the budget; and,

WHEREAS, the County Council has approved a budget for the 2021–2022 biennium, including all sources of revenues and anticipated expenditures on November 24, 2020; and,

WHEREAS, the County Council, in the course of considering the mid-biennium review and modification has reviewed all sources of revenue and examined all anticipated expenses and obligations; and,

WHEREAS, the County Council has determined it is not necessary to increase the Countywide Emergency Medical Fund property tax levy for 2022, and,

WHEREAS, the County Council has held public hearings regarding the county biennial budget and mid-biennium review, which included property tax revenues, and other revenues;

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Whatcom County Council that amounts collected through the Countywide Emergency Medical levy shall be limited to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property. A property tax increase, in addition to the amount resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, is hereby authorized for the 2022 levy in the amount of \$0, which is a percentage increase of 0% from the previous year.

ADOPTED this ____ day of _____, 2021

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() APPROVED () NOT APPROVED

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Singh Sidhu, Executive
Date:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-628

File ID:	AB2021-628	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@comcast.net

TITLE FOR AGENDA ITEM:

Ordinance amending the 2022 Whatcom County Budget, request no. 1, in the amount of \$50,655,096

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Supplemental #1 requests funding from various funds as presented in the attached summary.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Summary, Proposed Ordinance, Exhibit B Capital Listing, Exhibit C Position Control Changes, Requests

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
General Fund				
Assessor	To fund 2022 wage and benefit adjustments	175,381	-	175,381
Assessor	To fund additional postage request	6,000	-	6,000
Auditor	To fund 2022 wage and benefit adjustments	80,547	-	80,547
Auditor	To record licensing revenue increase	-	(100,000)	(100,000)
Council	To fund 2022 wage and benefit adjustments	99,104	-	99,104
Council	To remove unnecessary revenue accounts	-	1,340	1,340
Council	To fund COVID pandemic response review	100,000	-	100,000
Council	To fund public communications consultant for IPRTF	50,000	-	50,000
Council	To move Granicus maintenance to Non Departmental	(33,125)	-	(33,125)
County Clerk	To fund 2022 wage and benefit adjustments	69,499	-	69,499
County Clerk	To fund ARPA wages and benefits for Clerk in 2022	69,524	(69,524)	-
District Court	To fund 2022 District Court COVID backlog	182,415	(182,415)	-
District Court	To decrease funding in District Court as a result of 2022 wage and benefit adjustments	(46,262)	-	(46,262)
District Court Probation	To decrease funding in District Court Probation as a result of 2022 wage and benefit adjustments	(2,400)	-	(2,400)
Executive	To fund 2022 wage and benefit adjustments	1,714	-	1,714
Executive	To fund Director of Strategic Initiatives new FTE position	136,823	-	136,823
Health	To fund 2022 wage and benefit adjustments and record offsetting grant revenues	975,138	(944,174)	30,964
Health	To fund NSASO Substance Use Block Grant program increase	148,359	(160,228)	(11,869)
Health	To fund Emergency Rental Assistance program in 2022	3,500,000	(3,568,628)	(68,628)
Health	To fund Dept of Health-COVID Epidemiology and Laboratory Capacity grant program in 2022	29,000	(147,735)	(118,735)

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Health	To fund Dept of Health Vaccination/Immunization grant program in 2022	82,239	(130,542)	(48,303)
Health	To fund new COVID Epidemiology Lab Capacity grant program	139,242	(175,000)	(35,758)
Health	To fund additional Heath Officer 0.6 FTE position	137,999	-	137,999
Health	To fund TB elimination program from grant proceeds	6,970	(20,827)	(13,857)
Health	To fund food system plan	40,000	-	40,000
Health	To fund North Sound ASO Trueblood Grant program	95,568	(98,524)	(2,956)
Health	To fund Child & Family/Childcare Program Expansion	245,735	-	245,735
Health	To fund Foundational Public Health Services program	525,513	(834,950)	(309,437)
Hearing Examiner	To decrease funding in Hearing Examiner as a result of 2022 wage and benefit adjustments	(15,414)	-	(15,414)
Hearing Examiner	To decrease funding due to removal of building maintenance fees for Forest Street	(8,431)	-	(8,431)
Juvenile	To decrease funding in Juvenile as a result of 2022 wage and benefit adjustments	(23,299)	-	(23,299)
Non Departmental	To record General Fund sales tax revenue adjustments	-	(4,800,000)	(4,800,000)
Non Departmental	To fund increases in Indigent Burial services.	12,000	-	12,000
Non Departmental	To fund increase in What-Comm/Prospect Dispatch	116,646	-	116,646
Non Departmental	To fund Whatcom Housing Alliance's facilitation contract.	100,000	-	100,000
Non Departmental	To fund association fees increase	16,000	-	16,000
Non Departmental	To fund increase in Executive Contingency Fund	70,000	-	70,000
Non Departmental	To fund Totem Pole renovation	85,500	-	85,500
Non Departmental	To fund Granicus annual maintenance	33,125	-	33,125
Non Departmental	To fund medical examiner transition costs	100,000	-	100,000

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Non Departmental	To fund General Fund transfer to Natural Resources to support Climate Action Planner position	120,000	-	120,000
Non Departmental	To fund Public Safety Radio - GF Transfer	70,147	-	70,147
Parks & Recreation	To decrease funding in Parks as a result of 2022 wage and benefit adjustments	(35,801)	-	(35,801)
Parks & Recreation	To fund extra help rate increase	44,376	-	44,376
Parks & Recreation	To fund Lodging Tax lump sum payment to Dept of Revenue	35,000	-	35,000
Parks & Recreation	To fund supply cost increase	12,000	-	12,000
Parks & Recreation	To fund Silver Lake shower and restroom building maintenance	30,000	-	30,000
Planning & Development Services	To fund 2022 wage and benefit adjustments	306,034	-	306,034
Planning & Development Services	To fund fire inspector vehicle replacement	60,000	-	60,000
Planning & Development Services	To fund fire inspector safety/investigation equipment	55,600	-	55,600
Prosecuting Attorney	To fund 2022 COVID backlog request	379,546	(379,546)	-
Prosecuting Attorney	To record decrease in 2022 wage and benefit budget	(169,905)	-	(169,905)
Public Defender	To fund 2022 wage and benefit adjustments	35,762	(109,520)	(73,758)
Public Defender	To fund 2022 career path promotions	32,080	-	32,080
Public Defender	To fund 9 ARPA temp positions due to COVID court backlog	960,472	(960,472)	-
Public Defender	To fund extra help for first appearance hearings from ARPA funding	30,000	(30,000)	-
Public Defender	To fund reclassification of two investigator positions	12,638	-	12,638
Public Defender	To fund hiring investigator at step 8	15,669	-	15,669
Sheriff	To record funding to cover DTF JAG grant personnel costs	-	(77,500)	(77,500)
Sheriff	To fund 2022 wage and benefit adjustments	274,036	-	274,036

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Sheriff	To fund Office Coordinator - Temp with Benefits	70,992	-	70,992
Sheriff	To fund training mandates	25,000	-	25,000
Sheriff	To fund overtime for training mandates	25,000	-	25,000
Sheriff	To fund law enforcement wellness programs	82,000	-	82,000
Superior Court	To fund 2022 wage and benefit adjustments	(7,403)	-	(7,403)
Superior Court	To fund 2022 ARPA wages and benefits due to COVID court backlog	370,127	(370,127)	-
Treasurer	To fund statement postage	5,300	-	5,300
Treasurer	To record decrease in 2022 wage and benefit budget	(24,320)	-	(24,320)
Treasurer	To record 2022 property tax and interest income adjustments	-	(1,118,000)	(1,118,000)
WSU Extension	To fund 2022 wage and benefit adjustments	1,026	-	1,026
Total General Fund		10,116,486	(14,276,372)	(4,159,886)
Road Fund				
Public Works - Administration	To fund transfer out in support of Ferry SBR #3377	2,475	-	2,475
Public Works - M&O	To fund carryover of 2021 capital improvement projects	160,000	-	160,000
Public Works - M&O	To fund 3500 gallon oil distributor	360,000	-	360,000
Public Works - M&O	To fund safety training vehicle	55,000	-	55,000
Public Works - M&O	To fund Engineering Technician FTE for M&O	89,607	-	89,607
Public Works - M&O	To fund rubber tired roller upgrade	90,000	-	90,000
Public Works - M&O	To fund carryover to remove and replace CRS road oil tanks	267,400	-	267,400
Public Works - M&O	To fund Engineering Tech FTE work station	25,000	-	25,000
Public Works - M&O	To fund safety training office equipment	5,000	-	5,000
Public Works - M&O	To fund Abel Pit salt and sand storage SBR #3359	45,000	-	45,000
Public Works - M&O	to fund 2022 Swift Creek transfer increase	7,998	-	7,998
Total Road Fund		1,107,480	-	1,107,480
Veteran's Relief Fund	To fund veteran services increase	91,352	-	91,352
Whatcom County Jail Fund				

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Corrections	To fund replacement of large prisoner transport truck	265,267	-	265,267
Corrections	To fund increase in nursing services	88,000	-	88,000
Corrections	To fund Medications for Opioid Use Disorder program increase	25,000	(10,000)	15,000
Corrections	To fund 2022 wage & benefit adjustments - Corrections	571,761	-	571,761
Corrections	To fund medical social worker	125,000	(62,500)	62,500
Corrections	To fund training increase	50,027	-	50,027
Corrections	To fund extension of COVID testing into 2022	298,000	(298,000)	-
Corrections	To adjust 2022 sales tax revenue	-	(1,200,000)	(1,200,000)
Total Whatcom County Jail Fund		1,423,055	(1,570,500)	(147,445)
Homeless Housing Fund				
Health	To fund Commerce Housing and Essential Needs grant program increase	1,386,142	(1,386,142)	-
Health	To fund Commerce Shelter Grant program increase	342,977	(342,977)	-
Health	To fund 2022 wages & benefit adjustments - Homeless Housing	4,370	-	4,370
Health	To fund housing services increase	428,213	-	428,213
Health	To fund Emergency Solutions Grant (COVID) program increase	1,270,000	(1,270,000)	-
Homeless Housing Fund		3,431,702	(2,999,119)	432,583
Stormwater Fund		(126,528)	126,528	-
Behavioral Health Programs Fund				
Health	To fund 2022 wage & benefit adjustments - Health	70,727	-	70,727
Health	To fund triage facility maintenance	39,000	-	39,000
Health	To fund training for first responders and providers	20,000	(20,000)	-
Health	To fund City of Bellingham GRACE program award increase	140,000	(140,000)	-
Health	To fund behavioral health services support	262,637	(1,200,000)	(937,363)
Health	To fund transfer in support of Jail Medical Social Worker	62,500	-	62,500
Superior Court	To fund 2022 wage & benefit adjustments - Drug Court	2,340	-	2,340
Total Behavioral Health Programs Fund		597,204	(1,360,000)	(762,796)
Mental Health and Developmental Disabilities Fund	To fund specialized support services expansion	34,257	-	34,257
Swift Creek Sediment Management Fund	To record 2022 Swift Creek transfer increase	-	(15,996)	(15,996)
Countywide Emergency Medical Services Fund				
Non Departmental	To fund 2022 EMS contractual adjustments and record revenue adjustments	894,675	(1,830,846)	(936,171)
Non Departmental	To fund EMS Training Specialist 2022 budget	56,576	-	56,576

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Non Departmental	To fund Community Paramedic 2022 budget	195,712	-	195,712
Non Departmental	To fund EMS Administrative Assistant FTE addition	91,585	-	91,585
Non Departmental	To fund EMS Data Analyst budget	76,497	(22,500)	53,997
Non Departmental	To fund 2022 lateral paramedic training	356,016	-	356,016
Non Departmental	To fund 2022 paramedic training class	1,555,200	-	1,555,200
Non Departmental	To record public safety sales tax adjustment	-	(200,000)	(200,000)
Non Departmental	To fund 5th Medic Unit implementation	1,496,500	-	1,496,500
Total Countywide Emergency Medical Services Fund		4,722,761	(2,053,346)	2,669,415
Lake Whatcom Stormwater Utility Fund	To fund Lake Whatcom Stormwater Utility 2022 budget update	8,528	-	8,528
Affordable Housing, Behavioral Health Facilities, and Related Services Program Fund	To fund affordable housing development	1,181,215	(1,181,215)	-
American Rescue Plan Act Fund				
Health	To fund COVID response staffing and Health Department data system	3,860,191	-	3,860,191
Non Departmental	To fund ARPA housing security projects	3,500,000	-	3,500,000
Non Departmental	To fund ARPA economic recovery childcare capital projects	3,500,000	-	3,500,000
Non Departmental	To fund ARPA economic recovery childcare workforce deveopment	2,000,000	-	2,000,000
Non Departmental	To fund ARPA community infrastructure capital projects	3,000,000	-	3,000,000
Non Departmental	To fund ARPA broadband project support	2,000,000	-	2,000,000
Non Departmental	To fund leased space for Public Defender's new staff due to COVID court backlog	100,000	-	100,000
Non Departmental	To fund ARPA Grant Manager and grant acquisition services	217,779	-	217,779
Non Departmental	To fund COVID transport van staffing	64,000	-	64,000
Non Departmental	To fund transfer out to fund departmental ARPA expenditures	2,393,971	-	2,393,971
Non Departmental	To record 2022 ARPA revenue from U.S. Treasury	-	(22,264,271)	(22,264,271)
Total American Rescue Plan Act Fund		20,635,941	(22,264,271)	(1,628,330)
Solid Waste Fund				
Health	To fund 2022 wage & benefit adjustments - Solid Waste	(30,209)	-	(30,209)
Health	To fund solid waste property cleanup with liens	62,840	-	62,840
Health	To fund Point Roberts trailer	188,520	-	188,520
Health	To fund solid waste facilities improvements	25,136	-	25,136
Total Solid Waste Fund		246,287	-	246,287
Convention Center Fund	To fund 2022 Lodging Tax commitments	728,575	(400,000)	328,575
Victim Witness Fund	To fund 2022 wage and benefit adjustments	2,290	-	2,290

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
Emergency Management Fund	To fund public safety radio annual expense increase	55,747	(55,747)	-
Real Estate Excise Tax I Fund				
AS-Facilities	To fund Courthouse security upgrades	217,000	-	217,000
AS-Facilities	To fund Courthouse signage project	125,000	-	125,000
Total Real Estate Excise Tax I Fund		342,000	-	342,000
Public Utilities Improvement Fund				
Non Departmental	To fund Port of Bellingham county rural broadband project	2,000,000	-	2,000,000
Non Departmental	To record 2022 sales tax revenue adjustment	-	(1,100,000)	(1,100,000)
Non Departmental	To fund economic development tri-funder agreement	708,165	-	708,165
Non Departmental	To fund EDI Housing Affordable (HATWF) Loan Program	500,000	-	500,000
Total Public Utilities Improve Fund		3,208,165	(1,100,000)	2,108,165
Ferry System Fund	To fund sanican rental and support at Gooseberry Dock	5,500	(2,475)	3,025
Equipment Rental & Revolving Fund				
Public Works - Equipment Services	To fund expanded Shop Service Writer office remodel	40,000	-	40,000
Public Works - Equipment Services	To fund carryover of 2021 capita vehicle replacements	812,000	-	812,000
Public Works - Equipment Services	To fund PDS Fire Inspector vehicle	60,000	(60,000)	-
Public Works - Equipment Services	To fund Abel Pit salt and sand storage	45,000	(45,000)	-
Public Works - Equipment Services	To fund M&O safety training vehicle	55,000	(55,000)	-
Public Works - Equipment Services	To fund 3500 gallon oil distributor	360,000	(360,000)	-
Public Works - Equipment Services	To fund rubber tired roller upgrade	90,000	(90,000)	-
Public Works - Equipment Services	To fund large prisoner transport truck replacement	450,000	(265,267)	184,733
Total Equipment Rental & Revolving Fund		1,912,000	(875,267)	1,036,733
Administrative Services Fund				
AS-Admin	To fund 2022 wage and benefit adjustments - Admin Services	199,080	-	199,080
AS-Admin	To fund leave cash out reserve for Administrative Services Department	100,000	-	100,000
AS-Facilities	To fund reclassification of Facilities Assistant to Administrative Assistant	6,598	-	6,598
AS-Finance	To fund Grant Compliance Specialist position	105,959	(52,980)	52,979
AS-Finance	To fund financial reporting cloud subscription	30,000	-	30,000
AS-Finance	To fund electronic timesheets system	130,000	-	130,000
AS-Human Resources	To fund compensation consultant for unrepresented study	50,000	-	50,000
AS-Human Resources	To fund reclassification of HR Representative III	4,626	-	4,626

WHATCOM COUNTY				
Summary of the 2022 Supplemental Budget Ordinance No. 1				
Department/Fund	Description	Increased (Decreased) Expenditure	(Increased) Decreased Revenue	Net Effect to Fund Balance (Increase) Decrease
AS-Human Resources	To fund 1 FTE Human Resources Representative II position	101,816	(50,908)	50,908
AS-Human Resources	To fund enhanced HR recruitment software	45,000	-	45,000
AS-Information Technology	To fund replacement of firewall intrusion detection system	30,000	-	30,000
AS-Information Technology	To fund COVID-related video conferencing/remote access	30,000	-	30,000
AS-Information Technology	To fund multi-factor authentication for remote access	16,000	-	16,000
AS-Information Technology	To fund website platform upgrade to Civic Evolve additions	41,000	-	41,000
AS-Information Technology	To fund website accessibility enhancements	12,000	-	12,000
AS-Information Technology	To fund COVID-related laserfiche forms license additions	10,000	-	10,000
AS-Information Technology	To fund website online forms automation	19,000	-	19,000
Total Administrative Services Fund		931,079	(103,888)	827,191
Total Supplemental		50,655,096	(48,131,668)	2,523,428

**ORDINANCE NO.
AMENDMENT NO. 1 OF THE 2022 BUDGET**

WHEREAS, the 2021-2022 budget was adopted November 24, 2020; and,

WHEREAS, changing circumstances require modifications to the approved 2021-2022 budget; and,

WHEREAS, the modifications to the budget have been assembled here for deliberation by the Whatcom County Council,

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that the 2021-2022 Whatcom County Budget Ordinance #2020-068 is hereby amended as presented in Exhibit A by adding the additional amounts to the 2022 budget included therein, and

BE IT FURTHER ORDAINED by the Whatcom County Council that the capital appropriations listing be amended as presented in the attached Exhibit B, and

BE IT FURTHER ORDAINED by the Whatcom County Council that position control changes in the 2021-2022 Budget Ordinance are hereby amended to add 14.6 FTEs as presented in Exhibit C.

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Chair of Council

APPROVED AS TO FORM:

() Approved () Denied

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Sidhu, County Executive

Date: _____

EXHIBIT A

Fund	Expenditures	Revenues	Net Effect
General Fund			
Assessor	181,381	-	181,381
Auditor	80,547	(100,000)	(19,453)
Council	215,979	1,340	217,319
County Clerk	139,023	(69,524)	69,499
District Court	136,153	(182,415)	(46,262)
District Court Probation	(2,400)	-	(2,400)
Executive	138,537	-	138,537
Health	5,925,763	(6,080,608)	(154,845)
Hearing Examiner	(23,845)	-	(23,845)
Juvenile	(23,299)	-	(23,299)
Non Departmental	723,418	(4,800,000)	(4,076,582)
Parks & Recreation	85,575	-	85,575
Planning & Development Services	421,634	-	421,634
Prosecuting Attorney	209,641	(379,546)	(169,905)
Public Defender	1,086,621	(1,099,992)	(13,371)
Sheriff	477,028	(77,500)	399,528
Superior Court	362,724	(370,127)	(7,403)
Treasurer	(19,020)	(1,118,000)	(1,137,020)
WSU Extension	1,026	-	1,026
Total General Fund	10,116,486	(14,276,372)	(4,159,886)
Road Fund	1,107,480	-	1,107,480
Veteran's Relief Fund	91,352	-	91,352
Whatcom County Jail Fund	1,423,055	(1,570,500)	(147,445)
Homeless Housing Fund	3,431,702	(2,999,119)	432,583
Stormwater Fund	(126,528)	126,528	-
Behavioral Health Programs Fund			
Health	594,864	(1,360,000)	(765,136)
Superior Court	2,340	-	2,340
Total Behavioral Health Programs Fund	597,204	(1,360,000)	(762,796)
Mental Health and Developmental Disabilities Fund	34,257	-	34,257
Swift Creek Sediment Management Fund	-	(15,996)	(15,996)
Countywide Emergency Medical Services Fund	4,722,761	(2,053,346)	2,669,415
Lake Whatcom Stormwater Utility Fund	8,528	-	8,528
Affordable Hsg, Behavioral Health Fac and Related Services	1,181,215	(1,181,215)	-
American Rescue Plan Act Fund	20,635,941	(22,264,271)	(1,628,330)
Solid Waste Fund	246,287	-	246,287
Convention Center Fund	728,575	(400,000)	328,575
Victim Witness Fund	2,290	-	2,290
Emergency Management Fund	55,747	(55,747)	-
Real Estate Excise Tax I Fund	342,000	-	342,000
Public Utilities Improvement Fund	3,208,165	(1,100,000)	2,108,165
Ferry System Fund	5,500	(2,475)	3,025
Equipment Rental & Revolving Fund	1,912,000	(875,267)	1,036,733
Administrative Services Fund	931,079	(103,888)	827,191
Total Supplemental	50,655,096	(48,131,668)	2,523,428

Exhibit B
Capital Appropriations
2021-2022 Budget

Department	Fund	ASR/SBR Base Budget	Capital Description	Budget Year	Cost	2022 Change	Amended Cost	Cost Center
General Government Equipment and Software								
Sheriff	Drug Fund	6290	Replacement of Three Canines	2022	\$ 22,000	\$ -	\$ 22,000	165
AS Info Services	General Fund	6245	Lifecycle Replacement-Assessor/Treasurer Servers	2022	\$ 187,550	\$ -	\$ 187,550	4024
AS Info Services	Admin Services	6236	CivicPlus Website Platform Upgrade & Redesign	2022	\$ 80,000	\$ -	\$ 80,000	507111
AS Info Services	Admin Services	3492	Website Platform Upgrade to Civic Evolve Additions	2022	\$ -	\$ 41,000	\$ 41,000	507111
AS Finance	Admin Services	3504	Electronic Timesheets	2022	\$ -	\$ 130,000	\$ 130,000	507130
AS Human Resources	Admin Services	3517	Enhanced HR Recruitment Software	2022	\$ -	\$ 45,000	\$ 45,000	507140
Total					\$ 289,550	\$ 216,000	\$ 289,550	
General Government Facilities Improvements								
Facilities	REET I	Base Bgt	Interior Painting	2022	\$ 50,000	\$ -	\$ 50,000	3260513001
Facilities	REET I	Base Bgt	Carpet Replacement	2022	\$ 65,000	\$ -	\$ 65,000	3260515002
Facilities	REET I	Base Bgt	Asphalt Patching/Sidewalk Repairs	2022	\$ 50,000	\$ -	\$ 50,000	3260519001
Facilities	REET I	6206	ADA Compliance	2022	\$ 40,000	\$ -	\$ 40,000	3260521001
Facilities	EDI	6374	EWRRC Boiler Repacement	2022	\$ 130,000	\$ -	\$ 130,000	3320522001
Facilities	REET I	3293	Courthouse Security Upgrades	2022	\$ -	\$ 217,000	\$ 217,000	To be assigned
Facilities	REET I	3410	Courthouse Signage	2022	\$ -	\$ 125,000	\$ 125,000	To be assigned
Facilities	Historical Preservation	3409	Totem Pole Restoration	2022	\$ -	\$ 85,500	\$ 85,500	4019
Health	Solid Waste	3458	Point Roberts Trailer	2022	\$ -	\$ 150,000	\$ 150,000	140100
Total					\$ 335,000	\$ 577,500	\$ 912,500	
Parks Improvements								
Parks	REET I	6385	Parks Admin - HVAC Replacement/Upgrade	2022	\$ 81,411	\$ -	\$ 81,411	3240619003
Parks	REET II	6382	Lighthouse Marine Park Siding & Roofing	2022	\$ 168,350	\$ -	\$ 168,350	3240622001
Parks	REET II	6384	Stimpson Family Nature Res Parking Lot Improve.	2022	\$ 80,075	\$ -	\$ 80,075	3240622002
Total					\$ 329,836	\$ -	\$ 329,836	
Public Works Maintenance & Operations								
Public Works	Road	6146/3301	Maintenance on Metal Storage Bldg	2021-2022	\$ 25,000	\$ -	\$ 25,000	108106
Public Works	Road	6147/3301	Concrete Pad for Offloaded Sanders	2021-2022	\$ 30,000	\$ 30,000	\$ 60,000	108106
Public Works	Road	6151/3301	NE Truck Shed Repairs (I-Beam)	2021-2022	\$ 25,000	\$ 50,000	\$ 75,000	108106
Public Works	Road	6281/3342	Removal & Replacement of CRS Road Oil Tanks	2021-2022	\$ 236,500	\$ 30,900	\$ 267,400	108106
Total					\$ 316,500	\$ 110,900	\$ 427,400	
Equipment Rental and Revolving Fund Facility Improv & Operating Equipment								
Public Works	ER&R	2831/3359	Abel Pit Salt and Sand Storage*		\$ -	\$ 45,000	\$ 45,000	501600
Total					\$ -	\$ 45,000	\$ 45,000	

* Abel Pit was originally requested on Supplemental #2831 for \$55,000 in 2020. \$30,000 was under contract in 2020 and was carried forward and paid in 2021. Supplemental #3359 requests reappropriation of the \$25,000 that lapsed and adds \$20,000 due to cost increases.

Exhibit B
Capital Appropriations
2021-2022 Budget

Dept/Div	Fund	Description of Assets to be Purchased	Budget Year	Cost	Change	Amended Cost	Assets Being Replaced	Year	Replaced Equip #
Equipment Rental and Revolving Fund Vehicle & Equip Replacement and Additions									
Road-M&O	ER&R	6 wheeler Blade Truck	2021 2022	\$ 375,000	\$ -	\$ 375,000	Kenworth T800 blade truck	2002	228
Road-M&O	ER&R	Loader	2021 2022	\$ 290,000	\$ -	\$ 290,000	Cat 962G II loader	2003	335
Road-M&O	ER&R	Compressor	2021 2022	\$ 30,000	\$ -	\$ 30,000	Sullair trailer mounted compressor	2003	453
Road-M&O	ER&R	Sander	2021 2022	\$ 32,000	\$ -	\$ 32,000	Hiway E20500 sander	2003	454
Parks	ER&R	1 Ton Supercab & Chassis Pickup with Workboxes	2021 2022	\$ 85,000	\$ -	\$ 85,000	Ford F350 1 ton supercab & chassis pickup w/ workboxes	2008	886
Assessor	ER&R	Passenger Vehicle- Hybrid	2022	\$ 48,000	\$ -	\$ 48,000	Toyota Prius hybrid sedan	2005	28
Corrections	ER&R	Van	2022	\$ 48,000	\$ -	\$ 48,000	Ford E350 1 ton van	2006	8025
Corrections	ER&R	Large Prisoner Transport Vehicle	2022	\$ -	\$ 450,000	\$ 450,000	Braun Transport 7400	2008	900
AS-Facilities	ER&R	Van	2022	\$ 48,000	\$ -	\$ 48,000	Ford Aerostar van	1993	47
Health	ER&R	Passenger Vehicle- hybrid	2022	\$ 48,000	\$ -	\$ 48,000	Toyota Prius hybrid sedan	2005	59
Health	ER&R	Passenger Vehicle- hybrid	2022	\$ 48,000	\$ -	\$ 48,000	Toyota Prius hybrid sedan	2004	84
Engineering	ER&R	1/2 ton 4x4 pickup	2022	\$ 48,000	\$ -	\$ 48,000	Ford F150 1/2 ton crewcab 4x4 pickup	2007	170
Road-M&O	ER&R	1/2 ton 4x4 pickup	2022	\$ 55,000	\$ -	\$ 55,000	Dodge Ram 1500 1/2 ton crewcab 4x4 pickup	2014	105
Road-M&O	ER&R	1/2 ton 4x4 pickup	2022	\$ 55,000	\$ -	\$ 55,000	Dodge Ram 1500 1/2 ton crewcab 4x4 pickup	2014	110
Road-M&O	ER&R	1/2 ton 4x4 pickup	2022	\$ 55,000	\$ -	\$ 55,000	Dodge Ram 1500 1/2 ton crewcab 4x4 pickup	2014	111
Road-M&O	ER&R	1/2 ton 4x4 pickup	2022	\$ 55,000	\$ -	\$ 55,000	Dodge Ram 1500 1/2 ton crewcab 4x4 pickup	2014	168
Road-M&O	ER&R	1/2 ton 4x4 pickup (SBR #3332)	2022	\$ -	\$ 55,000	\$ 55,000	M&O Safety Training Vehicle		Addition
Road-M&O	ER&R	Excavator	2022	\$ 230,000	\$ -	\$ 230,000	Kobelco 760B excavator	2005	305
Road-M&O	ER&R	1.5 Yard Wheel Loader (ASR 6163/6409)	2022	\$ 150,000	\$ -	\$ 150,000	Fermec 760B backhoe	2000	323
Road-M&O	ER&R	Roadside Mowing Tractor	2022	\$ 150,000	\$ -	\$ 150,000	New Holland TS110A tractor	2006	326
Road-M&O	ER&R	Loader	2022	\$ 290,000	\$ -	\$ 290,000	Komatsu WA430 loader	2007	336
Road-M&O	ER&R	Rubber-tired Ditch Digging Machine	2022	\$ 425,000	\$ -	\$ 425,000	Gradall XL3100	2009	352
Road-M&O	ER&R	Water Tank- 3000 gallon	2022	\$ 40,000	\$ -	\$ 40,000	Norstar 3000 gallon water tank	2001	368
Road-M&O	ER&R	Hydro mulcher	2022	\$ 90,000	\$ -	\$ 90,000	Bowie hydromulcher 800/1100	2002	369
Road-M&O	ER&R	Compactor	2022	\$ 100,000	\$ -	\$ 100,000	Sheeps foot compactor	1962	442
Road-M&O	ER&R	Loader	2022	\$ 210,000	\$ -	\$ 210,000	Cat 953 track loader	1989	504
Road-M&O	ER&R	Roadside Mowing Mower	2022	\$ 100,000	\$ -	\$ 100,000	Diamond flail mower	2006	526
Road-M&O	ER&R	Loader-mounted Snow Blower Attachment (ASR 6158/6407)	2022	\$ 154,000	\$ -	\$ 154,000	Snow plow	1990	580
							V Snow plow	1990	583
							V Snow plow	1990	584
							V Snow plow	1990	585
							V Snow plow	1990	588
							Snow plow	1980	596
Road-M&O	ER&R	1500 Gal Oil Distributor (ASR 6406/6155) 3500 Gallon Oil Distributor (SBR# 3319)	2021 2022	\$ 310,000	\$ 50,000	\$ 360,000	Brentwood pup trailer	2000	315
							Brentwood pup trailer	2000	316
							Hamm 3412 vibratory roller	2004	423
							American sidecast snow plow	1990	475
Road-M&O	ER&R	Roller Rubber Tired Roller Upgrade (SBR #3341)	2021 2022	\$ 75,000	\$ 15,000	\$ 90,000	Beuthling B400 roller	1993	436
Planning & Development	ER&R	SUV- 4x4	2022	\$ 48,000	\$ -	\$ 48,000	Ford Escape 4x4 SUV	2007	13
Planning & Development	ER&R	1/4 ton 4x4 pickup	2022	\$ 48,000	\$ -	\$ 48,000	Toyota Tacoma 1/4 ton crewcab 4x4 pickup	2014	19
Planning & Development	ER&R	3/4 ton crew cab 4X4 pickup (SBR #3309)	2022	\$ -	\$ 60,000	\$ 60,000	Ford F150 pickup	2008	124
Parks	ER&R	Backhoe	2022	\$ 150,000	\$ -	\$ 150,000	New Holland B95 backhoe	2006	815
Sheriff	ER&R	1 ton 4x4 Pickup	2022	\$ 54,000	\$ -	\$ 54,000	Chevy Silverado 3500 1 ton crewcab 4x4 pickup	2014	6014
Sheriff	ER&R	Patrol Vehicle	2022	\$ 58,000	\$ -	\$ 58,000	Ford PUV AWD	2014	6224
Sheriff	ER&R	Patrol Vehicle	2022	\$ 58,000	\$ -	\$ 58,000	Ford PUV AWD	2014	6225
Sheriff	ER&R	Patrol Vehicle	2022	\$ 58,000	\$ -	\$ 58,000	Ford PUV AWD	2014	6227
Sheriff	ER&R	Patrol Vehicle	2022	\$ 58,000	\$ -	\$ 58,000	Dodge Charger	2014	6228
						\$ -			
ER&R	ER&R	Make Ready Intrafund Capital	2022	\$ 250,000	\$ -	\$ 250,000			
Total				\$ 4,426,000	\$ 630,000	\$ 5,056,000			

Exhibit B
2022 Capital Appropriations

Department	Fund	Road Proj #	Project Title	Year	Cost
Road Capital Program					
Public Works	Road Fund	919005	Samish Way/Galbraith Lane	2022	\$ 60,000
Public Works	Road Fund	921022	Marshall Hill Road Slide Repair/Culvert Replacement	2022	\$ 725,000
Public Works	Road Fund	920016	Chief Martin Road, Cagey Road to Kwina Road	2022	\$ 100,000
Public Works	Road Fund	922018	Birch Bay Drive Crosswalk	2022	\$ 50,000
Public Works	Road Fund	910002	Point Roberts Transportation Improvements	2022	\$ 150,000
Public Works	Road Fund	916007	Hemmi Road Flood Mitigation	2022	\$ 125,000
Public Works	Road Fund	921001	Birch Bay Drive, Jackson Road to Shintaffer Road	2022	\$ 1,750,000
Public Works	Road Fund	915013	Turkington Road/Jones Creek	2022	\$ 54,000
Public Works	Road Fund	919002	Abbott Road/Levee Improvements	2022	\$ 155,000
Public Works	Road Fund	919001	Ferndale Road/Levee Improvements	2022	\$ 50,000
Public Works	Road Fund	921019	Lakeway Drive Corridor Improvements	2022	\$ 50,000
Public Works	Road Fund	922003	Small Area Paving	2022	\$ 350,000
Public Works	Road Fund	921007	South Pass Road	2022	\$ 40,000
Public Works	Road Fund	921020	Deer Trail Slide Damage Repair	2022	\$ 130,000
Public Works	Road Fund	919006	Mosquito Lake Road/Hutchinson Creek Tributary	2022	\$ 610,000
Public Works	Road Fund	921008	Deal Road/Fish Passage	2022	\$ 95,000
Public Works	Road Fund	922007	Fox Road/California Creek Fish Passage	2022	\$ 155,000
Public Works	Road Fund	921021	Nulle Road/Friday Creek Bridge No. 106	2022	\$ 600,000
Public Works	Road Fund	919008	Replacement of Whatcom Chief & Terminal Modification	2022	\$ 649,000
Public Works	Road Fund	914015	Lummi Island Breakwater Replacement	2022	\$ 2,150,000
Public Works	Road Fund	919009	Relocation of Gooseberry Terminal	2022	\$ 50,000
Road Fund Total					<u><u>\$ 8,098,000</u></u>

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
ADMINISTRATIVE SERVICES				
<u>Administration</u>				
Director - Administrative Services	0.50			0.50
Administrative Services Coordinator	1.00			1.00
Admin Secretary/Grant Coordinator	0.50			0.50
	2.00	0.00	0.00	2.00
<u>Finance</u>				
Finance Manager	1.00			1.00
Associate Manager	1.00			1.00
Budget Analyst	2.00			2.00
Accountant	1.00			1.00
Financial Accountant	3.00			3.00
Office Coordinator	1.00			1.00
Grant Compliance Specialist	0.00	1.00		1.00
Payroll Supervisor	1.00			1.00
Payroll Benefits Specialist	1.00			1.00
Purchasing Coordinator	1.00			1.00
	12.00	1.00	0.00	13.00
<u>Facilities Management</u>				
Project & Operations Manager	1.00			1.00
Associate Manager	1.00			1.00
Facilities Assistant	1.00			1.00
Special Projects Manager	1.00			1.00
Clerk/Receptionist	1.00			1.00
Clerk IV	1.00			1.00
Facilities Technical Specialist	4.00			4.00
Facilities Maintenance Lead	1.00			1.00
Facilities Maintenance Technician	4.00			4.00
Facilities Technica Apprentice	1.00			1.00
Custodial Coordinator	1.00			1.00
Custodian	6.00	3.00		9.00
	23.00	3.00	0.00	26.00
<u>Information Technology</u>				
Information Technology Manager	1.00			1.00
Administrative Assistant	1.00			1.00
Associate Manager	1.00			1.00
Network Engineer	1.00			1.00
Active Directory Administrator	1.00			1.00
Systems Administrator	6.00			6.00
Systems Support Specialist	2.00			2.00
Systems Analyst	2.00			2.00
Applications Supervisor	1.00			1.00
Applications Administrator	3.00			3.00
Applications Support Specialist	1.00			1.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Applications Technician	0.00			0.00
GIS Administrator	2.00			2.00
GIS Supervisor	1.00			1.00
Records & Project Administrator	1.00			1.00
Coordinator	1.00			1.00
	25.00	0.00	0.00	25.00
<u>Human Resources</u>				
Human Resources Manager	1.00			1.00
Associate Manager	1.00			1.00
Employee Relations Manager	1.00	(1.00)		0.00
Human Resources Representative	4.00		1.00	5.00
Office Coordinator	0.00	1.00		1.00
	7.00	0.00	1.00	8.00
TOTAL ADMINISTRATIVE SERVICES	69.00	4.00	1.00	74.00
ASSESSOR				
Assessor	1.00			1.00
Chief Deputy	1.00			1.00
Administrative Assistant	1.00			1.00
Property Data Supervisor	1.00			1.00
Property Services Manager	1.00			1.00
Coordinator	1.00			1.00
Program Technician	1.00			1.00
Clerk	4.00			4.00
Clerk/Receptionist	2.00			2.00
Personal Property Clerk	2.00			2.00
GIS Specialist	1.00			1.00
Drafter/GIS Technician	1.00			1.00
Appraiser	13.00			13.00
TOTAL ASSESSOR	30.00	0.00	0.00	30.00
AUDITOR				
Auditor	1.00			1.00
Chief Deputy	1.00			1.00
Licensing Supervisor	1.00			1.00
Coordinator	1.00			1.00
Clerk	7.50			7.50
	11.50	0.00	0.00	11.50
<u>Elections</u>				
Elections Supervisor	1.00			1.00
Office Coordinator	1.00			1.00
Coordinator	1.00			1.00
Clerk	2.50			2.50
	5.50	0.00	0.00	5.50
TOTAL AUDITOR	17.00	0.00	0.00	17.00
COUNTY COUNCIL				

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Council				
Clerk of the Council	1.00			1.00
Legislative Analyst	1.00			1.00
Deputy Clerk	0.00			0.00
Council Member	3.50			3.50
Legislative Clerk	2.00			2.00
Legislative Coordinator	3.00			3.00
	10.50	0.00	0.00	10.50
Hearing Examiner				
Legislative Coordinator	0	1		1.00
Coordinator	1.00	(1.00)		0.00
	1.00	0.00	0.00	1.00
TOTAL COUNTY COUNCIL	11.50	0.00	0.00	11.50
COUNTY EXECUTIVE				
County Executive	1.00			1.00
Deputy Executive	0.50			0.50
Director of Strategic Initiatives	0.00		1.00	1.00
Executive Asst/Communications Coord.	1.00			1.00
Community Outreach Facilitator	1.00			1.00
Executive Secretary	1.00			1.00
Admin Secretary/Grant Coordinator	0.50			0.50
	5.00	0.00	1.00	6.00
Executive - Non Departmental				
American Rescue Plan Act				
Grants Manager	0.00	1.00	0.00	1.00
Emergency Medical Services				
Emergency Medical Services Manager	1.00			1.00
Program Specialist	1.00			1.00
Systems Analyst	1.00			1.00
Administrative Assistant	0.00		1.00	1.00
	3.00	0.00	1.00	4.00
TOTAL COUNTY EXECUTIVE	8.00	1.00	2.00	11.00
DISTRICT COURT				
District Court				
Judge	2.00			2.00
District Court Commissioner	1.00			1.00
District Court Administrator	0.50			0.50
Deputy District Court Administrator	1.00			1.00
Jury Coordinator	1.00			1.00
Coordinator	2.00			2.00
Financial Accountant	1.00			1.00
Clerk	4.00	(1.00)		3.00
Clerk/Receptionist	1.00	1.00		2.00
Calendar Coordinator	2.00			2.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Senior Court Clerk	1.00			1.00
Court Clerk	3.00	2.00		5.00
	19.50	2.00	0.00	21.50
District Court Probation				
District Court Probation Administrator	0.50			0.50
Probation Manager	1.00			1.00
Lead Probation Officer	1.00			1.00
Probation Officer	10.00			10.00
Senior Clerk	1.00			1.00
Clerk	2.00			2.00
	15.50	0.00	0.00	15.50
TOTAL DISTRICT COURT	35.00	2.00	0.00	37.00
HEALTH				
<u>Health Administration</u>				
Health Department Director	1.00			1.00
Health Officer	0.60		0.60	1.20
Assistant Director	1.00			1.00
Office Coordinator	1.00			1.00
Contract Coordinator	1.00			1.00
Accounting Supervisor	1.00			1.00
Accountant	1.00			1.00
Accounting Technician	2.00		1.00	3.00
Account Clerk	1.00			1.00
Health Info & Assessment Supervisor	1.00			1.00
Program Specialist - Data Analyst	1.00			1.00
Coordinator - Data Technician	0.00		1.00	1.00
Systems Analyst	0.00		1.00	1.00
Program Specialist	5.00	(1.00)		4.00
Administrative Supervisor	1.00			1.00
Clerk	7.00			7.00
Coordinator	2.00			2.00
	26.60	(1.00)	3.60	29.20
<u>Child & Family Programs</u>				
Child & Family Programs Manager	0.00		1.00	1.00
Program Specialist	0.00		1.00	1.00
	0.00	0.00	2.00	2.00
<u>Human Services</u>				
Human Services Manager	1.00			1.00
Human Services Supervisor	2.00			2.00
Program Specialist	7.00	1.00		8.00
Mental Health Court Program Manager	1.00			1.00
Community Health Specialist	3.00		1.00	4.00
	14.00	1.00	1.00	16.00
<u>Environmental Health</u>				

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Environmental Health Services Manager	1.00			1.00
Environmental Health Supervisor	3.00			3.00
Environmental Health Specialist	15.50		3.00	18.50
	19.50	0.00	3.00	22.50
<u>Communicable Disease & Epidemiology</u>				
Communicable Disease & Epidemiology Mgr	1.00			1.00
Public Health Nurse Supervisor	1.00	1.00		2.00
Public Health Nurse	11.00	4.00		15.00
Special Projects Manager	1.00			1.00
Program Specialist	1.00	1.00		2.00
Environmental Health Specialist	0.50			0.50
	15.50	6.00	0.00	21.50
<u>Community Health</u>				
Community Health Manager	1.00			1.00
Public Health Nurse Supervisor	1.00			1.00
Public Health Nurse	4.00			4.00
Community Nutrition Specialist	1.00			1.00
Program Specialist	2.00			2.00
Community Health Specialist	3.00			3.00
	12.00	0.00	0.00	12.00
TOTAL HEALTH	87.60	6.00	9.60	103.20
PARKS & RECREATION				
<u>Administration</u>				
Director	1.00			1.00
Administrative Supervisor	1.00			1.00
Accountant	1.00			1.00
Clerk	2.00			2.00
	5.00			5.00
<u>Park Facilities</u>				0.00
Park Operations Manager	1.00			1.00
Regional Park Supervisor	3.00	(1.00)		2.00
Park Ranger	3.00	1.00		4.00
Conservation & Park Steward	1.00			1.00
Park Attendant	3.00			3.00
Design & Development Supervisor	1.00			1.00
Maintenance/Construction Supervisor	1.00			1.00
Outside Maintenance Coordinator	2.00			2.00
Repair Maintenance	5.00			5.00
Maintenance Worker	1.00			1.00
	21.00			21.00
TOTAL PARKS & RECREATION	26.00			26.00
PLANNING & DEVELOP. SVCS.				
Director	1.00			1.00
Assistant Director	1.00			1.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Operations Supervisor	1.00			1.00
Clerk/Receptionist	1.00			1.00
Division Manager	1.00	1.00		2.00
PDS Supervisor	1.00	(1.00)		0.00
GIS Specialist	1.00			1.00
Planner	25.00			25.00
Coordinator	2.00			2.00
Clerk	1.00			1.00
Public Service Inspector	4.00			4.00
Fire Inspector	3.00			3.00
Plans Examiner	3.00			3.00
Permit Center Specialist	1.00			1.00
Planning Technician	1.00			1.00
TOTAL PLANNING & DEVELOPMENT	47.00			47.00
PROSECUTING ATTORNEY				
Prosecuting Attorney	1.00			1.00
Chief Criminal Deputy	1.00			1.00
Chief Civil Deputy	1.00			1.00
Administrative Manager	1.00			1.00
Assistant Chief Criminal Deputy	1.00			1.00
Deputy	21.00	2.00		23.00
Coordinator	1.00			1.00
Legal Assistant	11.00	1.00		12.00
Clerk/Receptionist	1.00			1.00
Lead Victim Witness Coordinator	1.00			1.00
Victim Witness Coordinator	3.00	1.00		4.00
Confidential Secretary	1.00			1.00
Paralegal	3.00			3.00
Domestic Relations Coordinator	2.00			2.00
TOTAL PROSECUTING ATTORNEY	49.00	4.00	0.00	53.00
PUBLIC DEFENDER				
Public Defender	1.00			1.00
Chief Deputy	1.00			1.00
Deputy	16.00	5.00		21.00
Office Administrator	1.00			1.00
Investigations Supervisor	1.00			1.00
Investigator	3.00	2.00		5.00
Behavioral Health Specialist	1.00	1.00		2.00
Legal Assistant	5.00	2.00		7.00
Administrative Secretary	1.00			1.00
Clerk	1.00			1.00
Clerk/Receptionist	2.00			2.00
TOTAL PUBLIC DEFENDER	33.00	10.00	0.00	43.00
PUBLIC WORKS				

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
<u>Administration/Accounting</u>				
Director	1.00			1.00
Assistant Director	1.00			1.00
Financial Services Manager	1.00			1.00
Financial Accountant	1.00			1.00
Accounting Technician	1.00			1.00
Account Clerk	1.00			1.00
Administrative Specialist	1.00			1.00
Safety/Training Specialist	1.00			1.00
Clerk/Receptionist	1.00			1.00
Program Specialist	2.00			2.00
Special Programs Manager	1.00			1.00
	12.00			12.00
<u>Engineering</u>				
County Engineer	1.00			1.00
Administrative Secretary	1.00			1.00
Clerk	2.00			2.00
Records Assistant	1.00			1.00
Engineering Manager	4.00			4.00
Engineer	7.00			7.00
Planner	3.00			3.00
Coordinator	1.00			1.00
Survey Technician	2.00			2.00
Senior Professional Land Surveyor	1.00			1.00
Engineering Technician	13.00			13.00
	36.00			36.00
<u>NPDES</u>				
Natural Resource Specialist	1.00			1.00
Engineering Technician	2.00			2.00
Planner	1.00			1.00
	4.00			4.00
<u>Flood Control</u>				
Engineering Manager	1.00			1.00
Administrative Secretary	1.00			1.00
Engineer	3.00			3.00
Engineering Technician	2.00			2.00
	7.00			7.00
<u>Flood - Natural Resources</u>				
Natural Resources Program Manager	1.00			1.00
Clerk	1.00			1.00
Program Specialist	1.00	1.00		2.00
Planner	6.00	(1.00)	1.00	6.00
	9.00	0.00	1.00	10.00
<u>Maintenance & Operations</u>				

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
M&O Superintendent	1.00			1.00
Assistant Superintendent/M & O	2.00			2.00
Safety & Training Specialist	0.00	1.00		1.00
Road Crew Leader	7.00			7.00
Sign Leader	1.00			1.00
Heavy Equipment Operator	9.00	(1.00)		8.00
Senior Road Maintenance Worker	21.00			21.00
Sr Road Maintenance Worker - Sign Crew	3.00			3.00
Sr Road Maintenance Worker - Basket Truck	1.00			1.00
Road Maintenance Worker	20.00			20.00
Engineering Technician	0.00		1.00	1.00
Clerk	2.50			2.50
Administrative Assistant	0.00	1.00		1.00
Administrative Secretary	1.00	(1.00)		0.00
	68.50	0.00	1.00	69.50
<u>Noxious Weed</u>				
Weed Control Coordinator	1.00			1.00
Weed Compliance Inspector	1.00			1.00
	2.00	0.00	0.00	2.00
<u>Ferry</u>				
Coordinator	1.00			1.00
Senior Master	1.00			1.00
Master	1.00			1.00
Master Engineer	1.00			1.00
Purser/ Deckhand	3.00			3.00
Deckhand	3.00			3.00
Regular Relief Deckhands	3.00			3.00
	13.00			13.00
<u>Stormwater & BBWARM</u>				
Stormwater Program Manager	1.00			1.00
Division Secretary	1.00			1.00
Engineer	2.00			2.00
Program Specialist (BBWARM)	1.00			1.00
	5.00			5.00
<u>Equipment Services</u>				
Equipment Services Manager	1.00			1.00
Shop Crew Leader	1.00			1.00
Heavy Duty Mechanic	8.00			8.00
Purchasing Coordinator	1.00			1.00
Purchasing Assistant	3.00	(1.00)		2.00
Shop Service Writer	0.00	1.00		1.00
Clerk	0.50			0.50
	14.50	0.00	0.00	14.50
TOTAL PUBLIC WORKS	171.00	0.00	2.00	173.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
SHERIFF				
Sheriff	1.00			1.00
Undersheriff	1.00			1.00
Chief Criminal Deputy	1.00			1.00
Chief Civil Deputy	1.00			1.00
Inspector	0.50			0.50
Lieutenant	3.00			3.00
Public Safety Communications Manager	1.00			1.00
Crime Analyst	1.00			1.00
Community Programs Coordinator	1.00			1.00
Senior Administrative Assistant	1.00			1.00
Financial Accountant	1.00			1.00
Accounting Technician	1.00			1.00
Records/ID Administrator	1.00			1.00
ID Technician	5.00	1.00		6.00
Coordinator	1.00			1.00
Clerk	8.00	(1.00)		7.00
Sergeant	10.00			10.00
Deputy	72.00			72.00
	110.50	0.00	0.00	110.50
<u>Bureau of Corrections</u>				
Chief of Corrections	1.00			1.00
Inspector	0.50			0.50
Lieutenant	2.00			2.00
Corrections Sergeant	8.00	2.00		10.00
Corrections Deputy	67.00	(2.00)		65.00
Clerk	4.00	(2.00)		2.00
Coordinator	1.00			1.00
Division Secretary	0.00	1.00		1.00
Accounting Technician	0.00	1.00		1.00
Account Clerk	1.00			1.00
Outside Maintenance Coordinator	6.00			6.00
	90.50	0.00	0.00	90.50
<u>Emergency Management</u>				
Deputy Director	1.00			1.00
Program Specialist	2.00			2.00
Coordinator	1.00			1.00
Clerk	1.00			1.00
	5.00	0.00	0.00	5.00
TOTAL SHERIFF	206.00	0.00	0.00	206.00
SUPERIOR COURT				
Superior Court Administration				
Judge	4.00			4.00
Director of Superior Court Admin.	1.00			1.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
Superior Court Commissioner	3.00	1.00		4.00
Court Reporter	3.00			3.00
Judicial Assistant	4.00	1.00		5.00
Pretrial Services Manager	1.00			1.00
Pretrial Services Officer	1.00			1.00
Court Facilitator	1.00			1.00
Therapeutic Court Coordinator	1.00			1.00
Substance Abuse Specialist	2.70			2.70
County Clerk	21.70	2.00	0.00	23.70
Asst SC Administrator/Chief Deputy Clerk	1.00			1.00
Financial Accountant	1.00			1.00
Court Clerk	13.50	(1.00)		12.50
Specialty Court Clerk	6.00	2.00		8.00
Senior Court Clerk	1.00			1.00
Court Services Coordinator	1.00			1.00
Juvenile Court Administration	23.50	1.00	0.00	24.50
Administrative Supervisor	1.00			1.00
Assistant Administrator	1.00			1.00
Accounting Technician	1.00			1.00
Account Clerk	1.00			1.00
Legal Secretary	4.00	(1.00)		3.00
Probation Officer	8.00			8.00
Detention Manager	1.00			1.00
Juvenile Detention Officer	14.00			14.00
Volunteer Guardian Ad Litem Coordinator	3.00			3.00
Dependency Guardian Ad Litem	2.00			2.00
Lead Dependency Guardian Ad Litem	1.00			1.00
Parent Ally Coordinator	0.00	1.00		1.00
Community Programs Coordinator	1.00			1.00
	38.00	0.00	0.00	38.00
TOTAL SUPERIOR COURT	83.20	3.00	0.00	86.20
TREASURER				
Treasurer	1.00			1.00
Chief Deputy	1.00			1.00
Tax Specialist	1.00			1.00
Revenue Deputy	3.00			3.00
Operations/Accounting Specialist	1.00			1.00
Investment Officer	1.00			1.00
Tax Services Manager	1.00			1.00
Accounting Technician	1.00			1.00
Clerk	2.00			2.00
Head Cashier	1.00			1.00

EXHIBIT C - POSITION CONTROL CHANGES

	Adopted 2021 Totals	2021 Changes	Mid-Biennium Changes	2022 Totals
TOTAL TREASURER	13.00	0.00	0.00	13.00
WSU EXTENSION				
Clerk	1.00			1.00
Coordinator	1.00			1.00
TOTAL WSU EXTENSION	2.00	0.00	0.00	2.00
COUNTY TOTAL STAFFING	888.30	30.00	14.60	932.90

Supplemental Budget Request

Status: Pending

Assessor

Suppl ID # 3365

Fund 1

Cost Center 300

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage and benefit adjustments-Assessor

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$144,253
	6210	Retirement	(\$32,030)
	6230	Social Security	\$11,048
	6245	Medical Insurance	\$35,345
	6255	Other H&W Benefits	\$15,339
	6259	Worker's Comp-Interfund	\$1,040
	6269	Unemployment-Interfund	\$386
	Request Total		\$175,381

1a. Description of request:

To add 2% COLA, reduce retirement rates, change other benefit rates and add back 2 FTEs previously "frozen".

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Assessor

Suppl ID # 3422

Fund 1

Cost Center 300

Originator: Rebecca Xczar

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Postage

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6710	Postage/Shipping/Freight	\$6,000
	Request Total		\$6,000

1a. Description of request:

The office is required to mail change of value notices annually, as well as mail personal property renditions and personal property notices annually, and senior exemption renewals. Postage is required to meet these statutory obligations. Costs of postage has increased.

1b. Primary customers:

Property owners in Whatcom County.

2. Problem to be solved:

Postage costs have increased. Mailing notices is a statutory requirement. The increase in postage costs was not previously known or budgeted for.

3a. Options / Advantages:

There is no other option. Mailing notices is a statutory requirement.

3b. Cost savings:

Notices are bundled when there is more than 1 notice going to the same owner, to reduce postage needed. We also offer eNotice and hope to have more proeprty owners sign up this year. There is no cost savings to the increased cost of postage.

4a. Outcomes:

The office will meet its statutory requirements annually.

4b. Measures:

Notices will be mailed.

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General fund.

Supplemental Budget Request

Status: Pending

Auditor

Suppl ID # 3366	Fund 1	Cost Center	Originator: M Caldwell
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: 2022 wage & benefit adjustments - Auditor

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$60,018
	6210	Retirement	(\$7,309)
	6230	Social Security	\$4,599
	6245	Medical Insurance	\$16,216
	6255	Other H&W Benefits	\$6,341
	6259	Worker's Comp-Interfund	\$521
	6269	Unemployment-Interfund	\$161
	Request Total		\$80,547

1a. Description of request:

To record 2% COLA, reduction in retirement rates, other changes in benefit rates and add back 1 FTE position previously "frozen".

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Auditor

Suppl ID # 3453	Fund 1	Cost Center 560	Originator: Stacy Henthorn
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: 2022 - Licensing Revenue Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4341.4801	Auditor Subagent Fees	(\$100,000)
	Request Total		(\$100,000)

1a. Description of request:

Based on current revenue projections, propose to increase the Auditor - licensing revenue account \$100,000 for the 2022 Budget.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3368

Fund 1

Cost Center 1100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Council

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$100,751
	6210	Retirement	(\$6,614)
	6230	Social Security	\$7,713
	6245	Medical Insurance	(\$10,416)
	6255	Other H&W Benefits	\$7,404
	6269	Unemployment-Interfund	\$266
	Request Total		\$99,104

1a. Description of request:

To record 2% COLA for unrep employees and elected official pay raises, reduction in retirement rates and changes in other benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3400

Fund 1

Cost Center 1100

Originator: Dana Brown-Davis

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Delete Revenue Accounts

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4341.9000	Road Vacation Fees	\$490
	4369.9001	Miscellaneous Revenues	\$850
	Request Total		\$1,340

1a. Description of request:

Delete revenue accounts 4341.9000 and 4369.9001.

1b. Primary customers:

Road vacation and franchise applicants.

2. Problem to be solved:

Whatcom County Public Works will soon take over collecting fees for franchises and road vacations, so the Council Office no longer needs these revenue accounts.

3a. Options / Advantages:

N/A

3b. Cost savings:

N/A

4a. Outcomes:

Whatcom County Public Works will collect fees for road vacations and franchises by year 2022.

4b. Measures:

The Council Office will no longer be responsible for collecting fees for road vacations and franchises.

5a. Other Departments/Agencies:

Whatcom County Public Works will be collecting road vacation and franchise fees in 2022.

5b. Name the person in charge of implementation and what they are responsible for:

Andrew Hester

6. Funding Source:

General fund

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3405

Fund 1

Cost Center 1100

Originator: Cathy Halka

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: COVID Pandemic Response Review

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630.902	Professional Services	\$100,000
	Request Total		\$100,000

1a. Description of request:

The Whatcom County Council adopted Ordinance 2021-045 on July 13, 2021 to establish an independent commission to review our community's response to the COVID-19 pandemic and identify lessons learned and opportunities for improvement. On September 14, 2021, Council Committee of the Whole approved staff to submit a budget supplement of \$100,000. This budget supplement will fund the consultant contract to complete the review.

1b. Primary customers:

Businesses and residents in Whatcom County

2. Problem to be solved:

A review of the pandemic response will enable the county to be better prepared for the next public emergency.

3a. Options / Advantages:

An independent review of county operations and community coordination will provide insight for improvements.

3b. Cost savings:

Identifying lessons learned and opportunities for improvement will help the county save time and money when called upon to respond to the next public emergency.

4a. Outcomes:

The consultant will create a final report including data gathered, recommendations, and updates suggested for the Emergency Management Plan.

4b. Measures:

Success of this effort will be the delivery of a final report with recommendations for the next emergency response and for the next update to the Emergency Management Plan.

5a. Other Departments/Agencies:

All staff participating in the pandemic response will be called upon to provide information and feedback to the consultant for this effort, including Health Department, Information Technology, Sheriff's Office, and other partner agencies in Whatcom County.

5b. Name the person in charge of implementation and what they are responsible for:

The special commission/consultant will work with key health department and emergency management staff, as well as staff from partner agencies to receive data and feedback.

6. Funding Source:

General fund

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3391

Fund 1

Cost Center 1150

Originator: Dana Brown-Davis

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Public Communications Consultant for IPRTF

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$50,000
	Request Total		\$50,000

1a. Description of request:

The Task Force will engage a communications strategist individual or team to assist with improving IPRTF public communication efforts. The main tasks for the consultant/team are: 1. The consultant will develop and implement a specific communications campaign for 3-4 Task Force initiatives projects, key focus areas, activities, or messages. 2. The consultant will develop a communications framework for future achievements and initiatives that can be implemented by the Task Force, its Steering Committee, and staff.

1b. Primary customers:

In addition to the general public in Whatcom County, the contractor will be tasked with identifying all potential target audience groups that will have an interest in and may benefit from the work of the Task Force, such as policy-makers, Tribes, BIPOC community, low-income communities, individuals with lived experience in the criminal justice system, service providers, partner agencies, business owners and employees, local media, community influencers, etc.

2. Problem to be solved:

The Task Force has achieved a number of major accomplishments in the community since it was formed. However, those efforts have largely gone unnoticed by county residents. As a result, there is often misunderstanding in the community about the effort from stakeholders to make improvements to the local criminal justice system at all levels, particularly at the intersection of this system with local and regional behavioral health services.

The diversity of county residents results in a myriad of sources from which community members get their information on local government efforts, with a varying degree of accuracy in that information. A robust public relations and communications effort will provide more transparency in the public process, create a more informed community, build trust with community members, and strengthen partnerships with other jurisdictions, agencies and community groups.

The Council and administration are actively working to create better community engagement across all county agencies and departments in response to County Council Resolution 2021-015, Resolution to Review and Enhance Opportunities for Public Participation in Whatcom County. The communications framework developed for the IPRTF could possibly be translated to work for other County groups, departments, and advisory committees.

3a. Options / Advantages:

Task Force Co-Chairs, Steering Committee members, and staff have maximized their public communication activities via traditional communication routes between the public and local government, including speaking engagements with local civic groups, posting extensive information on the County website, developing an outreach roster for interested groups and individuals, and maintaining email lists

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3391

Fund 1

Cost Center 1150

Originator: Dana Brown-Davis

for interested citizens.

Those efforts are not enough on their own to inform the community about the work of the IPRTF and engage their participation in the process. 1. Creating a campaign for select topics will get key messages to as many individuals as possible. 2. Creating a framework for future messaging campaigns will empower Task Force members and staff to continue engaging with the public on a meaningful level.

3b. Cost savings:

N/A

4a. Outcomes:

Deliverables will include campaign materials; messaging and other document templates; a written guide of best practices, guidelines, and tips for developing messages and content; and a final report to include: 1. An Excel spreadsheet that lists all target audience groups and the appropriate content type and distribution channel(s) for each group. 2. Templates for future marketing and outreach materials. 3. Recommendations for improvements to existing communications efforts.

4b. Measures:

1. Launch of communications campaign for 3-4 select Task Force initiatives. 2. Receipt of deliverable documents and reports. 3. Included in the scope of work requirements to develop a process for evaluating the success of the contracted and future communication campaigns.

5a. Other Departments/Agencies:

The deliverables will benefit other departments and stakeholders, but will not impose a burden on other departments, their budgets, or their staff.

5b. Name the person in charge of implementation and what they are responsible for:

The IPRTF and its Steering Committee will oversee the contractor/team. No other department or agency outside the County Council Office will be responsible for implementation.

6. Funding Source:

General fund.

Supplemental Budget Request

Status: Pending

Council

Suppl ID # 3527

Fund 1

Cost Center 1100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Move Granicus to Non Departmental

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	(\$33,125)
	Request Total		(\$33,125)

1a. Description of request:

Companion supplemental to Suppl ID #3495 Move Granicus Annual Maintenance which moves the ongoing maintenance costs to the Historical Preservation cost center in non departmental as Granicus is a repository for historical documentation.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

County Clerk

Suppl ID # 3367

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - County Clerk

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$38,555
	6210	Retirement	(\$27,124)
	6230	Social Security	\$6,498
	6245	Medical Insurance	\$37,725
	6255	Other H&W Benefits	\$12,364
	6259	Worker's Comp-Interfund	\$1,248
	6269	Unemployment-Interfund	\$233
	Request Total		\$69,499

1a. Description of request:

To fund 2% COLA, reduce retirement rates, change other benefit rates and add back 1.5 clerk FTEs previously "frozen".

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

County Clerk

Suppl ID # 3452	Fund	Cost Center 3152	Originator: David Reynolds
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: ARPA Wages and Benefits for Clerk 2022

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$42,567
	6210	Retirement	\$4,363
	6230	Social Security	\$250
	6230	Social Security	\$3,256
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,833
	6259	Worker's Comp-Interfund	\$728
	6320	Office & Op Supplies	\$111
	8301	Operating Transfer In	(\$69,524)
	Request Total		\$0

1a. Description of request:

To continue funding ARPA specialty court clerk position in 2022 to deal with COVID backlog.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

District Court

Suppl ID # 3372

Fund 1

Cost Center 1304

Originator: Bruce Van Glubt

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 District Court COVID backlog

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$80,124
	6210	Retirement	\$8,213
	6230	Social Security	\$6,129
	6245	Medical Insurance	\$32,832
	6255	Other H&W Benefits	\$3,659
	6259	Worker's Comp-Interfund	\$1,248
	6269	Unemployment-Interfund	\$210
	6650	Ct Eval/Investigations	\$50,000
	8301	Operating Transfer In	(\$182,415)
	Request Total		\$0

1a. Description of request:

Management of the backlog of cases created by pandemic related cancelation and rescheduling of court hearings. In addition, these funds will be used to maintain ongoing workload increases created by new processes created to keep the court in operation during the pandemic. This can be achieved by hiring an additional receptionist and court clerk position, along with using the services of pro tem judicial officers.

1b. Primary customers:

The public, prosecutors, public defenders, civil attorneys, and others court users.

2. Problem to be solved:

Management of caseload backlog and ongoing support of new pandemic related processes in District Court:

1. Remote hearings

a. Pre-pandemic, the court did not conduct any remote hearings

b. Takes significantly longer for court clerks to prepare for and coordinate remote hearings. This includes processing remote hearing requests, adding the request and entering the email address into the record, preparing the technology in the courtroom, sending zoom links, processing additional log sheets, and downloading the zoom recordings, in addition to having to hand address and mail court documents to those that attended the hearing remotely.

c. Takes longer for the Judicial Officer to conduct remote hearings. Infraction calendars now take approximately 4 times as long when compared to pre-pandemic.

d. Creates a significant increase in phone call and email traffic over what was experienced pre-COVID.

e. Remote hearings will continue to be offered as the pandemic appears to resolve.

2. Email acceptance of court documents

a. Pre-pandemic emailed documents were not accepted by District Court. The emails are more time consuming and create additional workload as they need to be printed and responded to.

b. Email acceptance of court documents will continue to be offered as the pandemic appears to resolve.

c. Pre-pandemic email inquiries (in addition to court documents) were not an available option. Staff now

Supplemental Budget Request

Status: Pending

District Court

Suppl ID # 3372

Fund 1

Cost Center 1304

Originator: Bruce Van Glubt

respond to 30-50 emails each day.

3. Backlog of criminal cases.

a. During the pandemic, criminal hearings were being canceled and rescheduled at the rate of approximately 900-1100 a month. Cause was found to delay speedy trial timelines.

b. Criminal cases are backlogged due to the fact that District Court did not conduct any jury trials from April, 2020 through June, 2021.

c. The backlog continues to grow as District Court is now only able to conduct one jury trial per week.

4. Backlog of civil case processing

a. Due to Gubernatorial directives, garnishments were suspended for many months which in turn created a backlog of delayed data entry, judicial review and case processing.

b. The suspension of civil trials have created a backlog.

5. Backlog of infraction cases

a. During the pandemic, infraction hearings were canceled and rescheduled. Cause was found to delay speedy trial timelines.

b. During the pandemic, the number of cases per calendar were reduced because of the amount of processing time the remote hearings require.

6. Jury Coordination

a. Jury coordination during the pandemic has continued.

b. Pre-pandemic Jury check in/orientations took one staff member. This process now takes a minimum of five staff members to assure safe social distancing.

7. Online infraction program

a. Although this option was available pre-pandemic, the use of this program has increased significantly during the pandemic. Processing cases with this program are more time consuming than in person hearings.

3a. Options / Advantages:

Eliminating improved customer service options for the public and continue to be unable to adequately process backlogged cases.

3b. Cost savings:

N/A

4a. Outcomes:

Successful management of backlogged cases and maintenance of pandemic related customer service improvements.

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

District Court

Suppl ID # 3380 Fund 1 Cost Center 1300 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 wage & benefit adjustments - District Ct

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$14,001)
	6210	Retirement	(\$40,868)
	6230	Social Security	(\$524)
	6245	Medical Insurance	\$717
	6255	Other H&W Benefits	\$8,857
	6259	Worker's Comp-Interfund	(\$416)
	6269	Unemployment-Interfund	(\$27)
	Request Total		(\$46,262)

1a. Description of request:

Reduce 2022 personnel cost due to senior personnel turnover, reduction in retirement rates and changes in other benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

District Court Probation

Suppl ID # 3382

Fund 1

Cost Center 1310

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Probation

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$6,638
	6210	Retirement	(\$18,707)
	6230	Social Security	\$636
	6245	Medical Insurance	\$2,678
	6255	Other H&W Benefits	\$6,333
	6259	Worker's Comp-Interfund	(\$1)
	6269	Unemployment-Interfund	\$23
	Request Total		(\$2,400)

1a. Description of request:

To record adjustments to 2022 wages due to 2% COA and personnel turnover, reduction in retirement rates and other changes in benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Executive

Suppl ID # 3383 Fund 1 Cost Center 1200 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 wage & benefit adjustments - Executive

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$10,011
	6210	Retirement	(\$8,345)
	6230	Social Security	\$920
	6245	Medical Insurance	(\$3,720)
	6255	Other H&W Benefits	\$2,819
	6269	Unemployment-Interfund	\$29
	Request Total		\$1,714

1a. Description of request:

Record COLA increases, reduction in retirement rates and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Executive

Suppl ID # 3520	Fund 1	Cost Center 1200	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: Director of Strategic Initiatives - New FTE

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$94,680
	6210	Retirement	\$11,600
	6230	Social Security	\$7,243
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,909
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$247
	6320	Office & Op Supplies	\$500
	6510	Tools & Equip	\$3,500
	Request Total		\$136,823

1a. Description of request:

The County Executive is requesting expenditure authority for a new position to provide project management and administrative oversight for the County's strategic initiatives. The new position will have the title of Director of Strategic Initiatives and will be responsible for County initiatives aimed at addressing such community-wide issues as child care, climate change, behavioral health and housing, as well as diversity, equity and inclusion work within County Government.

1b. Primary customers:

All residents of Whatcom County.

2. Problem to be solved:

The pandemic has disrupted our community in many ways and exacerbated longstanding problems. The COVID-19 Community Health Impact Assessment presented by the Health Department in July 2021 identified some of the most acute problems: an emerging child care crisis; social, racial and economic disparities in school readiness; accelerated erosion of housing affordability; heightened expression of behavioral and mental health issues such as anxiety, depression, and substance use; and a sharp surge in homeless families with children.

Simultaneously, new funding streams have emerged to address both immediate COVID impacts (ARPA) and long-term issues (other state and federal programs for child care, housing, climate resilience, broadband, etc.).

The County Executive's Office needs to increase its administrative capacity to respond commensurately to emerging and longstanding needs and to meet the public's rising expectations for proactive problem-solving. With the increased availability of state and federal resources to address issues facing our community, it is important that the County Administration have sufficient capacity to access and deploy these resources.

3a. Options / Advantages:

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Status: Pending

Executive

Suppl ID # 3520

Fund 1

Cost Center 1200

Originator: Tawni Helms

The County Administration has received requests from advisory boards and community advocacy groups to create separate offices in the Executive's Office to address specific issues, such as the Office of Child & Family and Office of Climate Action. While such an approach has symbolic appeal, it would be much costlier and create unnecessary competition for resources.

Establishing the position of Director of Strategic Initiatives is a leaner approach to addressing the key challenges facing Whatcom County. Furthermore, there is a precedent for having a special projects manager in the Executive's Office, and previous administrations have found this approach effective.

Retaining the status quo, where the countywide administrative burden rests on the Executive and Deputy Executive, would inhibit the Administration's ability to adequately respond to current needs and meet the community's expected level of service.

3b. Cost savings:

Creating a single position to manage multiple strategic initiatives represents a cost-effective and fiscally responsible approach to bolstering administrative capacity.

The alternative of hiring multiple directors would incur high costs by severalfold. The alternative of retaining the status quo would undermine the County's ability to address critical social and economic problems, having a long-term impact on the community's socio-economic health with the fiscal impacts resonating for many years to come.

4a. Outcomes:

Significant preparatory work has been done with regard to the Child & Family Action Plan and the Climate Action Plan, with outcomes identified and timelines established. Metrics will be developed for other strategic initiatives as well.

4b. Measures:

Each strategic initiative will have its own set of measurable outcomes, and the Director of Strategic Initiatives will regularly report on results to the County Executive and County Council.

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

general fund

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3362

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage and benefit adjustments-Health

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9332	ELC Grant	(\$433,372)
	4333.9626	DOH COVID-19 Vaccine Svcs	(\$105,856)
	4336.0425	FPHS Grant	(\$404,946)
	6110	Regular Salaries & Wages	\$796,781
	6190	Direct Billing Rate	\$875,257
	6195	Direct Billing Offset	(\$822,772)
	6210	Retirement	(\$81,725)
	6230	Social Security	\$60,745
	6245	Medical Insurance	\$97,139
	6255	Other H&W Benefits	\$37,322
	6259	Worker's Comp-Interfund	\$10,275
	6269	Unemployment-Interfund	\$2,116
	Request Total		\$30,964

1a. Description of request:

Record 2% COLAs, reduction in retirement rates, other changes in benefit rates, budgets for 9 COVID-related FTEs added during fall 2020 and 2021 and the corresponding grant revenue covering the 9 positions.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3362

Fund 1

Cost Center

Originator: M Caldwell

6. Funding Source:

General Fund and Grant Revenues

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3446

Fund 1

Cost Center 675500

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: NSASO Substance Use Block Grant Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9959	DASA Prevention	(\$160,228)
	6610	Contractual Services	\$148,359
	Request Total		(\$11,869)

1a. Description of request:

We are requesting increased spending authority for substance use prevention services due to an increase in the 2021 Substance Abuse Block Grant revenue that will continue into 2022. This funding provides for the continuation of support for substance use disorder outreach services provided by Opportunity Council's Homeless Outreach Team (HOT). This is a continuation of a grant received since 2017. This funding supports street outreach and care coordination to get people into assessments and treatment. He/she will also provide capacity for HOT to ensure appropriate care, including referrals to syringe exchange, treatment, mental health services, health services, and housing.

1b. Primary customers:

Opiate addicts and people with other substance use disorders that are homeless.

2. Problem to be solved:

The Homeless Outreach Team (HOT) lack clinical support for substance use disorders (SUD), yet, more than 80% of the people they contact have SUD issues.

3a. Options / Advantages:

To ensure professional SUD services on the HOT and to ensure appropriate interventions for those who need services.

3b. Cost savings:

Services will be contracted with a local provider.

4a. Outcomes:

Ensure access to SUD services for opiate addicted people who are homeless and provide coordinated care to housing.

4b. Measures:

Number of people getting in for SUD assessment Number of people served Number of people getting into other SUD services, such as syringe exchange or Suboxone clinics.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

North Sound Administrative Services Organization, Federal Substance Abuse Block Grant

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3448

Fund 1

Cost Center 677700

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Emergency Rental Assistance 2022

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4331.2102	American Rescue Plan Act	(\$3,568,628)
	6610	Contractual Services	\$3,500,000
	Request Total		(\$68,628)

1a. Description of request:

The Health Department requests expenditure authority of new federal funding from the US Treasury to provide housing assistance for households in Whatcom County. 90% of these emergency rental assistance funds will be used for payment of rent and utilities among households behind on expenses. The remaining ten percent will be available for housing stability services including personnel required to deliver assistance. The Health Department will work with local housing support service providers to deliver the program. The grant total of \$6,911,585 provides funding beginning in 2021 through September 2022.

1b. Primary customers:

Households in Whatcom County who are below 80% of the Area Median Income (AMI) and have rent or utility obligations that place them at risk of losing their housing or utilities without financial assistance. Households below 50% of the AMI are prioritized.

2. Problem to be solved:

The COVID pandemic has created an economic crisis for many households who have experienced a loss of income and/or a significant increase in costs. This crisis has caused many households to be in arrears or unable to continue paying lease obligations or utility bills. Upon termination of the current Eviction Moratorium, it is expected that many households will lose their housing if financial assistance is not provided. According to the Census Bureau Pulse Survey, approximately 14% of the Washington State renters are not caught up on rent payments, placing them at risk of eviction. This equates to about 4,600 households in Whatcom County.

3a. Options / Advantages:

Whatcom County had the option to accept the federal grant, or to deny the direct funds and defer our share to the state. In order to maximize the amount Whatcom County could receive, the county chose to receive the funds directly from the US Treasury Department. Receiving the monies directly expedited the ability to utilize the funds, thereby affording immediate planning efforts for distribution of assistance.

3b. Cost savings:

Households that might otherwise experience loss of stable housing and perhaps exit to homelessness can now remain in their homes. Stable housing promotes opportunities for gainful employment, education, family and social ties. This provides a positive return on the investment as households can continue to contribute to the local economy with no need to rely on other public assistance.

4a. Outcomes:

Eligible households will receive up to 12 months of rent and utility assistance, distributed in no more than three-month increments. Evictions will be prevented.

4b. Measures:

The program anticipates serving approximately 130 households per month, and anticipates spending the

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3448

Fund 1

Cost Center 677700

Originator: Ann Beck

entire amount by the middle of the year. An estimated 600 households will be served in 2022 with this funding. The average amount of assistance per household is anticipated at \$4,000.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

US Treasury Department / Consolidated Appropriations Act 2021

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3450

Fund 1

Cost Center 660480

Originator: Cindy Hollinsworth

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: WA State DOH-COVID ELC 2022 Grant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9332	ELC Grant	(\$147,735)
	6140	Overtime	\$4,000
	6320	Office & Op Supplies	\$5,000
	6610	Contractual Services	\$20,000
	Request Total		(\$118,735)

1a. Description of request:

In order to support COVID response efforts, the Health Department requests spending authority of dedicated grant funding to support the on-going COVID response operations through December 31, 2022. This funding request will support the continuation of 4 positions established during 2021 to respond to the COVID pandemic, including 3 full-time, benefitted, short term nurses and a COVID manager. These positions are funded for a full 12 months.

In November 2020, Council approved ASR #2021-6303 for an initial Department of Health COVID ELC grant to fund temporary staff for the COVID response through June 2021. The second COVID ELC grant amendment ASR #2021-3198 extended funding for these positions through December 2021. This is part of the Health Department's shift to a more stable staffing response to the COVID pandemic response and recovery efforts.

In addition, these funds include contractual services such as testing site communication or planning as necessary to prevent the spread of COVID.

1b. Primary customers:

Customers are all residents of Whatcom County, who will benefit from timely case and contact investigations, testing availability, quarantine and isolation support, warehouse/PPE management and distribution, and communication support.

2. Problem to be solved:

Temporary positions create a structural barrier for stable and consistent support. Temporary employees may only work full time for three months and then drop hours to 16 hours per week. For many of these positions, it takes a full three months for proficiency. This challenge contributes to turnover in favor of full time positions, instability in staffing, severe administrative burden to continually recruit and hire additional temporary staff, and reduced capacity to respond to the pandemic.

3a. Options / Advantages:

Employees will be advantaged by having benefits, especially among those in higher COVID risk roles, and by having some stability and predictability in their employment status. The County will be advantaged by having a more stable workforce and the ability to attract and retain well-qualified individuals needed to respond to COVID.

3b. Cost savings:

Some of these positions will replace the need for higher cost contractors. The more effective the

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3450

Fund 1

Cost Center 660480

Originator: Cindy Hollinsworth

response, the sooner the county will recover economically.

4a. Outcomes:

More staff available to assist in the response, less administrative time spent in recruitment and hiring, more efficient operations with better trained and more experienced staff, less reliance on costly contracts.

4b. Measures:

Adequate community testing; 90% of cases called within 24 hours; 80% of contacts called within 48 hours; daily monitoring of all people in isolation and quarantine; timely contact with businesses, schools, day cares, healthcare organizations, and long term care facilities.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

WA State Department of Health Consolidated Contract / Epidemiology and Laboratory Capacity (ELC)- Protection Program and Healthcare Grant/ Federal Coronavirus Relief Funding

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3454

Fund 1

Cost Center 627221

Originator: Cindy Hollinsworth

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: DOH Vaccination / Immunization Grant 2022

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9626	DOH COVID-19 Vaccine Svcs	(\$130,542)
	6110	Regular Salaries & Wages	\$36,649
	6210	Retirement	\$3,757
	6230	Social Security	\$2,804
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,790
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$95
	6610	Contractual Services	\$20,000
	Request Total		(\$48,303)

1a. Description of request:

The Health Department is requesting expenditure authority of dedicated grant funding to support the COVID response. The original grant expenditure authority was approved in 2021 by Council with ASR #2021-3200. This request for an additional \$82,239 in expenditure authority will allow the Health Department to finish spending the full grant award of \$853,429. This COVID Relief Fund grant began in 2021 and expires December 2022.

This funding would support the continuation of a full-time, benefitted, short term clerk/site scheduler through December 2022. This regular position is funded for 12 months. This request is part of the Health Department's shift to a more stable staffing strategy to the COVID pandemic response and recovery efforts. In addition, these funds will cover contractual services supporting vaccination planning and community resource information.

1b. Primary customers:

Customers are all residents of Whatcom County, who will benefit increased coordination and access to COVID-19 vaccine.

2. Problem to be solved:

Temporary positions create a structural barrier for stable and consistent support. Temporary employees may only work full time for three months and then drop hours to 16 hours per week. For many of these positions, it takes a full three months for proficiency. This challenge contributes to turnover in favor of full-time positions, instability in staffing, severe administrative burden to continually recruit and hire additional temporary staff, and reduced capacity to respond to the pandemic.

3a. Options / Advantages:

Employees will be advantaged by having benefits and by having some stability and predictability in their employment status. The County will be advantaged by have a more stable workforce and the ability to attract and retain well-qualified individuals needed to respond to COVID.

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3454

Fund 1

Cost Center 627221

Originator: Cindy Hollinsworth

3b. Cost savings:

Some of these positions will replace the need for higher cost contractors. The more effective the response, the sooner the county will recover economically.

4a. Outcomes:

More staff available to assist in the response, less administrative time spent in recruitment and hiring, more efficient operations with better trained and more experienced staff, less reliance on costly contracts.

4b. Measures:

County Vaccination rates

Number of COVID vaccinations provided by community provider sites

Number of COVID vaccine providers in Whatcom County

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

WA State Department of Health Consolidated Contract /Vaccination and Immunization Grant /Federal COVID Relief Funding

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3456

Fund 1

Cost Center 660490

Originator: Cindy Hollinsworth

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: New COVID Epidemiology Lab Capacity (ELC) Grant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9332	ELC Grant	(\$175,000)
	6110	Regular Salaries & Wages	\$79,621
	6140	Overtime	\$4,000
	6210	Retirement	\$8,161
	6230	Social Security	\$6,091
	6245	Medical Insurance	\$32,832
	6255	Other H&W Benefits	\$3,603
	6259	Worker's Comp-Interfund	\$1,456
	6269	Unemployment-Interfund	\$207
	6320	Office & Op Supplies	\$3,271
	Request Total		(\$35,758)

1a. Description of request:

In order to support COVID response efforts, the Health Department requests spending authority of new dedicated grant funding to support the on-going COVID response operations through December 31, 2022.

This funding request includes continuation of 2 Case and Contact Investigator (CCI) positions established during 2021 to respond to the COVID pandemic. These full-time, benefitted, short-term positions are funded for a full 12 months. This is part of the Health Department's shift to a more stable staffing response to the COVID pandemic response and recovery efforts. These positions were previously approved by Council in 2021 with ASR #2021-3198.

1b. Primary customers:

Customers are all residents of Whatcom County, who will benefit from timely case and contact investigations, testing availability, quarantine and isolation support, warehouse/PPE management and distribution, and communication support.

2. Problem to be solved:

Temporary positions create a structural barrier for stable and consistent support. Temporary employees may only work full time for three months and then drop hours to 16 hours per week. For many of these positions, it takes a full three months for proficiency. This challenge contributes to turnover in favor of full time positions, instability in staffing, severe administrative burden to continually recruit and hire additional temporary staff, and reduced capacity to respond to the pandemic.

3a. Options / Advantages:

Employees will be advantaged by having benefits, especially among those in higher COVID risk roles, and by having some stability and predictability in their employment status. The County will be advantaged by have a more stable workforce and the ability to attract and retain well-qualified individuals needed to respond to COVID.

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3456

Fund 1

Cost Center 660490

Originator: Cindy Hollinsworth

3b. Cost savings:

Some of these positions will replace the need for higher cost contractors. The more effective the response, the sooner the county will recover economically.

4a. Outcomes:

More staff available to assist in the response, less administrative time spent in recruitment and hiring, more efficient operations with better trained and more experienced staff, less reliance on costly contracts.

4b. Measures:

Adequate community testing; 90% of cases called within 24 hours; 80% of contacts called within 48 hours; daily monitoring of all people in isolation and quarantine; timely contact with businesses, schools, day cares, healthcare organizations, and long term care facilities.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

New WA State Department of Health Consolidated Contract / CDC Epidemiology Laboratory Capacity (ELC) Grant

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3468

Fund 1

Cost Center 600200

Originator: Erika Lautenbach

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: Health Officer 0.6 FTE request

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$98,930
	6210	Retirement	\$12,119
	6230	Social Security	\$7,568
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$2,272
	6259	Worker's Comp-Interfund	\$437
	6269	Unemployment-Interfund	\$257
	Request Total		\$137,999

1a. Description of request:

Request to add .6FTE authority and funding for the purposes of having two Co-Health Officers, each at .6FTE.

1b. Primary customers:

Residents of Whatcom County, who will benefit from additional medical expertise and guidance from the health department; healthcare providers and other partners, who will have more access to public health medical professionals and coordination around programs, communicable and reportable diseases, and emergency response; residents who require vital records or other services needing a timely Health Officer review and signature.

2. Problem to be solved:

Since 1998, when the previous Health Officer was hired at .6FTE, Whatcom County has grown significantly as have the scope of services provided by the Health Department. In recent years, the previous Health Officer regularly worked more than 24 hours/week, and an additional doctor was hired to cover tuberculosis for 8-10 hours/week. When recruiting for a new Health Officer, there was an opportunity to better staff the role with more FTE authority, including expanding the coordination and leadership within the healthcare community and medical partners.

3a. Options / Advantages:

The first option the Health Department initiated was to hire 1 FTE Health Officer and retain the second doctor providing TB support. After two candidates over two searches declined the position because of the low salary relative to clinical practice, the Health Department recognized the need to provide flexibility for a Health Officer to continue in a part-time role. In addition, the TB doctor will transition out this fall, requiring more than 1FTE to support the full scope of work. Having two Health Officers will ensure on-call coverage, provide diverse perspectives for good decision-making, allow continued clinical practice and connection to the medical field, expand the Health Department's ability to continue COVID-initiated collaborations like the Healthcare Coalition, and meet the scope and complexity of our growing county.

3b. Cost savings:

The county will not need to utilize a contractor or hire out for physician-level clinical services.

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Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3468

Fund 1

Cost Center 600200

Originator: Erika Lautenbach

4a. Outcomes:

Responsiveness and coordination with department staff, county leaders, and healthcare/medical community; continued support for residents and the community.

4b. Measures:

Continued on-call coverage; continued medical consult for staff; continued clinical oversight of communicable disease and TB programs; enhanced coordination with healthcare and medical community; increased support and collaboration with advisory boards, including Health Board

5a. Other Departments/Agencies:

Other departments may benefit/have involvement if a health officer order is needed.

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

The General Fund

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3470

Fund 1

Cost Center 627402

Originator: Cindy Hollinsworth

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: TB Elimination Grant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.9311	TB Control Programs	(\$20,827)
	6320	Office & Op Supplies	\$2,400
	6610	Contractual Services	\$2,000
	7110	Registration/Tuition	\$2,170
	7115	Membership & Assoc Dues	\$400
	Request Total		(\$13,857)

1a. Description of request:

The Health Department is requesting expenditure authority of dedicated grant funding. These funds will allow the Health Department to expand testing and treatment among people at risk for latent Tuberculosis (TB) infection and strengthen case finding and treatment for TB disease. Higher rates of TB in our community has moved us into a higher tier and eligible for additional state funding to support local work. Surplus of revenue over expenditures will cover existing personnel currently in the Health Dept budget, as well as departmental overhead.

1b. Primary customers:

Persons with active and/or latent TB who reside in Whatcom County, Healthcare providers, Program staff.

2. Problem to be solved:

When TB is not identified early it is costly to treat both in terms of health system expenses and long-term impacts on the individual patient.

3a. Options / Advantages:

Additional funding will support staff education and training through conferences and membership in the national TB controller's association, enhanced PPE (CAPRS) for working with infectious patients, and a virtual system for monitoring daily medication administration.

3b. Cost savings:

Without treatment, latent TB infection can become TB disease, early identification and treatment of TB while still in the latent phase has significant cost savings over later detection where a person might develop drug resistant TB needing costly medications to treat (along with side effects.) It costs about \$500 to treat one person with latent TB infection and can cost over \$100,000 to treat one person with multi drug resistant TB.

4a. Outcomes:

Early identification and treatment of active and latent TB in county residents, decreased long term costs to the healthcare system.

4b. Measures:

of persons treated annually

5a. Other Departments/Agencies:

Whatcom County Healthcare Providers, WA DOH TB program

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3470

Fund 1

Cost Center 627402

Originator: Cindy Hollinsworth

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

WA State Department of Health / Consolidated Contract

Supplemental Budget Request

Status: Pending

Health

Community Health

Suppl ID # 3471

Fund 1

Cost Center 677350

Originator: Astrid Newell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Food System Plan

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$40,000
	Request Total		\$40,000

1a. Description of request:

The Health Department is requesting additional expenditure authority for facilitation, drafting, and implementation planning for the Whatcom County Food System Plan (FSP). The FSP, as outlined by the ordinance establishing the Whatcom Food System Committee, is slated to be drafted by the end of 2022. This ASR includes the following activities: 1) hiring a consultant to facilitate this community process, 2) the drafting, editing, and publishing of the FSP.

1b. Primary customers:

The primary customers of this process are members of our local food system, which includes food industry laborers, farmworkers, local and regional food producers, fishermen, food security advocates, food waste/recycling organizations and food consumers in Whatcom County.

2. Problem to be solved:

This ASR addresses the ongoing and emerging problem of a disconnected local food system. Major factors working against a healthy local food system, such as climate impacts, inadequate access to healthy, affordable food, and inequitable labor practices have been identified in several updates to the Whatcom County Community Food Assessment. The Whatcom County Council committed to addressing these problems by supporting the drafting and implementation of a countywide food system plan, as advised by the Food System Committee.

Twelve percent of Whatcom County residents are food insecure, a percent that does not take into account those who accessed emergency food services through the pandemic. Residents who work in the food service and food processing industries experience inconsistent employment, both by hours per week and weeks per year. This has made them especially economically vulnerable during the pandemic. Despite our rich agricultural and fishing economies, most of what we grow and fish here is exported overseas. We are dependent on sourcing food from outside of our county. New water rights laws are disproportionately impacting local sales farmers. Finally, as identified by both the Climate Impact Advisory Committee and the Solid Waste Advisory Committee, there is a need to address food waste in our community.

The FSP will provide a blueprint for County government to not only address these factors, but will also allow for our county to be more nimble in dealing with new food system challenges in the future.

3a. Options / Advantages:

The Ordinance establishing the Food System Committee explicitly outlines the need for a Food System Plan. WCHD has dedicated a staff person to the committee. No other county department has the capacity to carry out this work.

It is possible for the committee to request funding directly from the Whatcom County Council and it is also feasible the committee could apply for federal grants to support this work. These two options, however,

Supplemental Budget Request

Status: Pending

Health

Community Health

Suppl ID # 3471

Fund 1

Cost Center 677350

Originator: Astrid Newell

are likely to take more time. The timeline dictates that the food system plan should be completed by the end of 2022. It has already been delayed a year by the pandemic. This plan is especially important in the COVID recovery response and any more delay may lead to further negative impacts on our community members. While the food system is vast and includes several sectors, providing a public health lens to a food system plan will allow for both immediate and long-term health successes.

3b. Cost savings:

Investment in our food system will allow for a more sustainable and equitable food system. Food will become an increasingly expensive commodity, which will disproportionately affect our low-income, rural, and BIPOC residents. These populations already have poorer health outcomes. By outlining a robust plan, we can prevent negative health outcomes. Additionally, by promoting a more local food system, Whatcom County will be able to continue to provide food for our residents and be less dependent on the global food system. If we dedicate resources to strategic planning today, we can ensure a healthy food growing landscape, which will be good for all of our community's producers in the long-term.

4a. Outcomes:

- Pre-plan work
 - oReview Community Food Assessment (CFA) and other County plans (such as the Climate Action Plan) (January 2022)
 - oEstablish Food System Plan goals, based on CFA review (January 2022)
- Food System Plan facilitation
 - oGuide Food System Committee in outlining community engagement process for plan (February 2022)
 - oCoordinate community engagement process (February, March 2022)
 - oFacilitate prioritization and decision-making of food system plan elements (March, April 2022)
 - oDevelop metrics and system for data collection for each food system plan goal (April, May 2022)
- Food System Plan finalization
 - oProvide a draft of the Food System Plan (no later than October 2022)
 - oDevelop plan for outlining implementation and sustainability of plan (October 2022)
- Focusing equity
 - oEnsure an equitable design and process (January 2022-October 2022)
- Food System Plan reviewed, edited, and adopted by County Council (October-December 2022).

4b. Measures:

The FSP will be approved by the Food System Committee and adopted by County Council. Metrics within the plan will be collected.

5a. Other Departments/Agencies:

It is likely that a county-wide FSP will require input and coordination with other advisory committees, community groups, and County departments. Specifically, there will be overlap with the Solid Waste Advisory Committee, the Climate Impact Advisory Committee, the Conservation Easement Program, WRIA, Washington State Food Policy Forum, the Marine Resources Committee, and the Agricultural Advisory Committee, as well as the Food Security Taskforce. Some community groups and non-profits that may be impacted are the Whatcom County Foodbank Network, the Whatcom Food Network, Opportunity Council, and WSU extension. Since some of work addresses ag zoning and water rights, it is possible the Planning and Development Services and Public Works departments may be impacted.

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3474

Fund 1

Cost Center 675700

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: North Sound ASO Trueblood Grant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4334.0691	HCA - CJTA	(\$98,524)
	6610	Contractual Services	\$95,568
	Request Total		(\$2,956)

1a. Description of request:

We are requesting expenditure authority of new grant funding from the state to support treatment services in the jail and in the community. This funding will support the provision of behavioral health services in the jail and the GRACE program.

1b. Primary customers:

Individuals with serious mental health disorders, particularly class members of the state's Trueblood lawsuit. Class action members include those people with serious mental illness who need to undergo an evaluation of their competency to stand trial, or who have been deemed incompetent to stand trial as a result of a mental illness and require restoration services from a designated hospital.

2. Problem to be solved:

Individuals with behavioral health disorders, especially class action members, have more difficulties than the general population with accessing behavioral health and support services effectively. Decompensation of one's mental illness can lead to hospitalization and increased time in the justice system.

3a. Options / Advantages:

This new funding supports the county's efforts to provide intensive services to people involved in the criminal justice system and who have serious mental health disorders. Trueblood funding is intended to help serve people with behavioral health disorders in their communities in an effort to avoid expensive hospitalizations, arrests and incarceration.

3b. Cost savings:

These monies are not local funds, but rather derive from a state legislative proviso. Therefore, this decreases the burden on local dollars that might be used for these services.

4a. Outcomes:

Outcomes include: Less offender recidivism, increased stability in services, and increased retention in services.

4b. Measures:

Number of offenders with serious mental illness served in the jail and by the GRACE program and connected to ongoing services

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3474

Fund 1

Cost Center 675700

Originator: Perry Mowery

North Sound Behavioral Health Administrative Services Organization- State proviso funds

Supplemental Budget Request

Status: Pending

Health

Community Health

Suppl ID # 3475

Fund 1

Cost Center 621200

Originator: Astrid Newell

Year 2 2022

Add'l FTE ☒

Priority

1

Name of Request: Child & Family/Childcare Program Expansion

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$164,466
	6210	Retirement	\$18,833
	6230	Social Security	\$12,582
	6245	Medical Insurance	\$32,832
	6255	Other H&W Benefits	\$4,138
	6259	Worker's Comp-Interfund	\$1,456
	6269	Unemployment-Interfund	\$428
	6510	Tools & Equip	\$8,000
	6780	Travel-Educ/Training	\$3,000
	Request Total		\$245,735

1a. Description of request:

The Health Department is requesting expenditure authority to expand services for children and families. This request aligns with the Executive's establishment of an Office of Strategic Initiatives and creates capacity for that office related to the Child and Family Well-being Initiative. This request also builds capacity within the Health Department to support key childcare initiatives and ARPA distributions related to childcare capacity planning, partnerships and service expansion.

This funding would support the addition of 2 new positions in the health department including a Child and Family Well-being Manager/Strategic Lead and a Childcare Program Specialist.

1b. Primary customers:

Whatcom County residents, particularly children and families and those most impacted by systemic barriers to accessing needed services and resources.

2. Problem to be solved:

Over the past several years, County leaders and community partners have recognized the critical need and opportunity to address several "big" cross-cutting issues through coordinated and collaborative efforts across jurisdictions, departments, divisions, and communities, working together for a healthier future in Whatcom County. Partners and planning groups have called for the development of additional infrastructure within the County government to organize and lead efforts on these big issues. The Child and Family Action Plan called for infrastructure focused on child and family well-being and at a level able to influence all departments within county government. Without that infrastructure and countywide focus, it has been challenging to move projects and initiatives forward.

3a. Options / Advantages:

The Executive's proposed model creates efficiencies and coordination at the leadership level, and ensures that dedicated resources are available for each issue. In addition, the model allows for some standardization of approach across each of the issues, and recognizes the inter-relatedness of these

Supplemental Budget Request

Status: Pending

Health

Community Health

Suppl ID # 3475

Fund 1

Cost Center 621200

Originator: Astrid Newell

issues.

Adding a Childcare Program Specialist in the Health Department will provide the county with expertise in program planning, outcome measurement, contract development, and distribution of ARPA and other funds to address childcare challenges countywide.

3b. Cost savings:

The Executive's proposed model and staffing within the Health Department will centralize some supportive functions, such as administrative coordination, communications, data analysis, and policy support creating efficiencies over addressing strategic issues in separate offices. In addition, the ability to coordinate efforts on these issues will reduce duplication and maximize opportunities for impact, leading to better outcomes for children, families and communities and decreased need for high-cost crisis interventions in the future.

4a. Outcomes:

The leadership infrastructure and specific capacity for Child and Family Well-being will support progress on the following results, outlined in the Child and Family Action Plan and aligned with emerging work of Healthy Whatcom Community Health Improvement process:

- 1.Children are safe, healthy, and ready to learn
- 2.Families are strong, stable and supported from the start
- 3.Communities are welcoming and supportive places for children and families to live, learn, work and play

4b. Measures:

Measures will address the following indicators:

- Increase School readiness
- Decrease Child maltreatment
- Improved Family financial stability
- Decreased Family homelessness
- Increased Sense of belonging
- Increased Affordable housing
- Increased Child care availability and access
- Increased Behavioral health services and support

5a. Other Departments/Agencies:

This Strategic Lead on Children and Families has significant connections with all departments and divisions of County government, with specific impacts on departments that are serving as "home base" for the Strategic Initiative leads (i.e., the Health Department for Child and Family Well-being Strategic Initiative).

The proposal also has key connections with a wide variety of jurisdictions (cities, tribes), community partners and groups.

5b. Name the person in charge of implementation and what they are responsible for:

Implementation of this approach resides within the Office of the County Executive, working in collaboration with departmental leaders, other jurisdictions (eg. City of Bellingham, small cities) and community entities.

Within the Health Department, the Community Health Manager will be responsible for hiring and overseeing the work of the Childcare Program Specialist.

6. Funding Source:

County General Fund. Some positions may be eligible for ARPA funds for a period of time.

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3477

Fund 1

Cost Center 660525

Originator: Erika Lautenbach

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: Foundational Public Health Services Funding

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4336.0425	FPHS Grant	(\$834,950)
	6110	Regular Salaries & Wages	\$327,778
	6210	Retirement	\$33,598
	6230	Social Security	\$25,075
	6245	Medical Insurance	\$82,080
	6255	Other H&W Benefits	\$9,489
	6259	Worker's Comp-Interfund	\$3,640
	6269	Unemployment-Interfund	\$853
	6320	Office & Op Supplies	\$6,000
	6510	Tools & Equip	\$21,000
	6610	Contractual Services	\$10,000
	6780	Travel-Educ/Training	\$6,000
	Request Total		(\$309,437)

1a. Description of request:

The Health Department is requesting expenditure authority for dedicated grant funding for Foundational Public Health Services which was allocated by the Washington State legislature in 2021. This on-going funding is intended to support increased staff and program capacity for specific foundational public health programs and services, as described more fully here <https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/HealthSystemsTransformation/PublicHealthTransformation>. These core public health services include Communicable Disease services, Environmental Public Health programs, data and assessment, epidemiology, communications, and administrative functions. This funding would support 5 new positions and 4 current positions in the health department in these key areas.

1b. Primary customers:

Whatcom county residents

2. Problem to be solved:

Chronic underfunding of the public health system across WA State has led to significant gaps in the ability of local health jurisdictions to provide core public health services to meet community needs, and respond to urgent and emergent public health issues. The WA State legislature has acknowledged this problem, and provided additional funds to reinforce and expand capacity of the governmental public health system across the state.

3a. Options / Advantages:

The Foundational Public Health Services Steering Committee, a collaborative entity comprised of representatives of the State Dept of Health, State Board of Health, American Indian Health Commission,

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3477

Fund 1

Cost Center 660525

Originator: Erika Lautenbach

and Local Health Jurisdictions have identified and concurred on priority areas for use of this biennium's allocation. Local health funding is targeted to these areas and cannot be used for programs or services outside the designated categories. These categories include: Communicable Disease (General and Hepatitis C), Environmental Public Health (School Environmental Safety, Food Safety, Water System Capacity/Quality, and Sewage Safety), and Cross-Cutting Capabilities (Assessment/Epidemiology, Policy/Planning, Administrative and Business Office Functions, etc)

3b. Cost savings:

This funding covers long-term investments in public health without increasing the burden on the County's General Funds. The intent is to increase state funding for foundational public health services, allowing General Funds to be used to increase support for other local public health priorities.

4a. Outcomes:

The Health Department will have capacity to provide core public health services needed to meet community needs, and respond to urgent and emergent public health issues. Outcomes will include:

- Increased ability to monitor, assess and mitigate the spread of transmittable diseases in our community
- Decreased spread of transmittable diseases
- Improved food and school environment safety
- Improved communication with community
- Improved data systems with increased accessibility
- Increased administrative capacity to meet the needs of Health Department services

4b. Measures:

Measures will be consistent with Health Department performance measures, strategic plan, and accreditation requirements for the positions added and programs/services provided.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

WA State Department of Health / Foundational Public Health Funding Award

Supplemental Budget Request

Status: Pending

Hearing Examiner

Suppl ID # 3385

Fund 1

Cost Center 1600

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Hearing Examiner

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$12,309)
	6210	Retirement	(\$2,968)
	6230	Social Security	(\$941)
	6245	Medical Insurance	\$271
	6255	Other H&W Benefits	\$564
	6269	Unemployment-Interfund	(\$31)
	Request Total		(\$15,414)

1a. Description of request:

Wage adjustments due to senior personnel retirement, retirement rate reduction and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Hearing Examiner

Suppl ID # 3516

Fund 1

Cost Center 1600

Originator: Dana Brown-Davis

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Delete Hearing Examiner Building Maintenance Fees

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6659	Building Maintenance Fee	(\$8,431)
	Request Total		(\$8,431)

1a. Description of request:

Delete Building Maintenance Fees, account 6659, from the Hearing Examiner's 2022 budget prior to transferring funds to Council Office budget (see supplemental request 3509).

1b. Primary customers:

Facilities.

2. Problem to be solved:

The Hearing Examiner's Office has moved into the Council Office suite at the Courthouse and no longer occupies office space at the Forest Street Annex, therefore, we should not be charged maintenance fees for the space.

3a. Options / Advantages:

N/A

3b. Cost savings:

\$8,431 can be returned to the General Fund.

4a. Outcomes:

We will no longer be charged Building Maintenance Fees for office space at the Forest Street Annex.

4b. Measures:

We will no longer be charged Building Maintenance Fees for office space at the Forest Street Annex.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund.

Supplemental Budget Request

Status: Pending

Juvenile

Administration

Suppl ID # 3387

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Juvenile

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$15,450
	6210	Retirement	(\$62,511)
	6230	Social Security	\$1,197
	6245	Medical Insurance	\$7,253
	6255	Other H&W Benefits	\$15,257
	6269	Unemployment-Interfund	\$55
	Request Total		(\$23,299)

1a. Description of request:

To record 2% COLA, wage adjustments due to personnel turnover, reduction in retirement rates and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3406

Fund 1

Cost Center 120

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: General Fund Sales Tax Revenue Adjustments

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.1000	Sales & Use Tax Collecte	(\$4,250,000)
	4313.7100	Criminal Justice Sales T	(\$550,000)
	Request Total		(\$4,800,000)

1a. Description of request:

Adjust general fund sales tax based on 2021 projected plus approximately 5% growth; original 2022 budget was conservatively low due to unknown pandemic economic impacts.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Sales Tax

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3424

Fund 1

Cost Center 4025

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Indigent Burial Budget Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630	Professional Services	\$12,000
	Request Total		\$12,000

1a. Description of request:

As per Whatcom county Code 2.06.120 the medical examiner, after accepting jurisdiction for unclaimed human remains, shall arrange for the transportation and cremation of such remains at the county expense. This budget supplemental will ensure adequate budget authority for 2022 claims based on the 2021 average.

1b. Primary customers:

2. Problem to be solved:

The cost for this fluctuates from year to year. 2021 experienced a significant jump to the number of unclaimed remains and there was a backlog of claims submitted for payment. To ensure adequate budget authority in 2022 we propose the same increased budget for 2022 that was afforded in 2021.

3a. Options / Advantages:

This provides adequate budget authority for anticipated expenses.

3b. Cost savings:

n/a

4a. Outcomes:

Claims for indigent burial (cremation) can be paid.

4b. Measures:

5a. Other Departments/Agencies:

Medical Examiner Office

5b. Name the person in charge of implementation and what they are responsible for:

Medical Examiner

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3480 Fund 1 Cost Center 4250 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: Increase in What-Comm/Prospect Dispatch

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210	Intergov Prof Svcs	\$116,646
	Request Total		\$116,646

1a. Description of request:

Increase 2022 budget for dispatch fees per approved budget from the City of Bellingham::

County paid Fire Districts - \$324 .11% increase

Sheriff's Office - \$116,322 13.23% increase

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

We have developed systems to manage the work but they are complex and require experienced staff to cobble together informations in different software products. There is to much opportunity for error. It is time consuming and as staff reaches the end of their careers it will be difficult to bring new staff up to speed using a cumbersom process. An integrated system will simplefy the process.

3b. Cost savings:

Possible it could save annual audit costs. An reduce the need for additional staff.

4a. Outcomes:

More timely Annual Financial Reports and Budget Documents.

4b. Measures:

Douments will be available on a more timely basis.

5a. Other Departments/Agencies:

May involve the Treasures Office.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

AS cost allocation

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3483

Fund 1

Cost Center 4046

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Whatcom Housing Alliance

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$100,000
	Request Total		\$100,000

1a. Description of request:

Whatcom County will contract with Sustainable Connections to facilitate Whatcom Housing Alliance's goal to create opportunities for more diverse housing in all neighborhoods that will result in equitable, prosperous, healthy, and vibrant communities for everyone.

1b. Primary customers:

2. Problem to be solved:

Whatcom County is facing an unprecedented housing crisis, and citizen surveys indicate homelessness and affordable housing are the top two concerns. The Whatcom Housing Alliance is working with local partners to increase opportunities for people of all income levels to have the opportunity to live in quality, affordable homes in walkable neighborhoods that foster healthy lifestyles.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

Sustainable Connections will provide WHA coordination and management services needed to further the education and technical assistance necessary to advance the work of the Alliance.

4b. Measures:

The Alliance will provide the resources, education and policy consultation to help the community increase more diverse housing types, improve affordability and reduce the incidence of homelessness in Bellingham, Whatcom County and its small cities.

5a. Other Departments/Agencies:

Health Department

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3485

Fund 1

Cost Center 4090

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Association Fees Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7115	Membership & Assoc Dues	\$16,000
	Request Total		\$16,000

1a. Description of request:

Fees have incrementally increased. Whatcom County is also joining the new 5 county advocacy group representing Snohomish, Whatcom, Island, Skagit and San Juan counties and known as SWISS. This 5-county membership will work collaboratively to jointly advocate on issues affecting our residents. Annual dues for SWISS is \$15,000.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3486

Fund 1

Cost Center 4900

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Executive Contingency Fund

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7190	Other Miscellaneous	\$70,000
	Request Total		\$70,000

1a. Description of request:

The Executive Contingency Fund is utilized for non-departmental contracts that come forward during the year for a wide range of services. Increasing the contingency fund allows for greater flexibility when responding emergent and timely matters.

1b. Primary customers:

2. Problem to be solved:

Contingency funding is utilized to meet critical and timely needs in an efficient manner. Having budget authority to respond to allows the Executive to respond in a timely manner.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

The Executive can respond to and address needs with adequate budget authority.

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3409

Fund 1

Cost Center 4019

Originator: Rob Ney

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Totem Pole

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7060	Repairs & Maintenance	\$85,500
	Request Total		\$85,500

1a. Description of request:

The Totem Pole prominently displayed in the front of the Courthouse has been vandalized. Work on this piece must be done by an artist selected by the Lummi Nation. Staff has been provided an Artist by the Lummi Nation and has created a budget for this effort based on the quote provided by the Artist. The price includes staff time for taking down, transporting and reinstalling the totem pole.

1b. Primary customers:

Any person that enters the Courthouse and visualizes the totem pole.

2. Problem to be solved:

The totem pole has been vandalized and should be repaired. This totem pole has faded and is in need of refreshing in any event. This effort will restore the totem pole, extending the life of the piece.

3a. Options / Advantages:

There are not many options other than to utilize the Lummi artist designated by the Lummi Nation. This is the most culturally responsible pathway to restoring the totem pole.

3b. Cost savings:

Staff has estimated the costs and will only expend that amount necessary to restore the totem pole. Any remaining funds will be returned to the fund in which they were provided from.

4a. Outcomes:

Facilities will contract with the Lummi designated artist to restore the totem pole as soon as funds are provided.

4b. Measures:

The totem pole will be restored.
By having the piece restored and reinstalled.

5a. Other Departments/Agencies:

The impacts could only be considered advantageous.
None

5b. Name the person in charge of implementation and what they are responsible for:

Roby Ney, Project & Operations Manager

6. Funding Source:

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3495

Fund 1

Cost Center 4019

Originator: D. Brown-Davis \ P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Move Granicus Annual Maintenance

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$33,125
	Request Total		\$33,125

1a. Description of request:

Move the existing budget Granicus agenda management annual maintenance and hosting from the County Council budget to the Historical Preservation funding in Non Departmental.

1b. Primary customers:

All departments.

2. Problem to be solved:

RCW 36.22.170 allows the county legislature to use historical preservation funding to be used to promote historical preservation of historical programs, including preservation of historic documents. Granicus is the repository for the historic preservation of all legislative actions and its annual maintenance costs are an appropriate use for this funding.

3a. Options / Advantages:

Continue to have Council staff administer the annual maintenance contract and payments out of general fund funding.

3b. Cost savings:

N/A

4a. Outcomes:

The budget for the Granicus agenda management annual maintenance and hosting would be moved from a Council cost center to the Historical Preservation cost center in Non Departmental.

4b. Measures:

The budget would move and IT would start administering Granicus agenda management annual maintenance and hosting payments in collaboration with and on behalf of Council staff.

5a. Other Departments/Agencies:

County Council would experience a budgeting change.

5b. Name the person in charge of implementation and what they are responsible for:

Finance would need to implement the budgeting change.

6. Funding Source:

Historic Preservation Funding

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3507

Fund 1

Cost Center 2100

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Medical Examiner Transition Costs

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$100,000
	Request Total		\$100,000

1a. Description of request:

Dr. Gary Goldfogel has served as Whatcom County's Medical Examiner for 34 years and will be retiring at the end of this year. The County is now actively in the process of recruiting a new Medical Examiner. There are essential tools and equipment used by the Medical Examiner but not owned by the County. Negotiations with a new Medical Examiner candidate will help to determine the equipment needs to assume the role in 2022.

In addition to equipment and tools, partnering agencies will be engaged to ensure the full ME services will continue without interruption. Once the candidate has been selected the County will work to negotiate a new agreement.

Transitional costs are anticipated as follows:

Transportation Agreements
Acquisition of Tools/Equipment
X-Ray Services
Additional Storage

1b. Primary customers:

Whatcom County residents

2. Problem to be solved:

Whatcom County will be transitioning to a new Medical Examiner in 2022.

3a. Options / Advantages:

It is anticipated that costs will be incurred to ensure a smooth transition for the newly appointed Medical Examiner to begin in 2022.

3b. Cost savings:

n/a

4a. Outcomes:

A new Medical Examiner will be appointed to replace our long standing and long serving current ME who is retiring at the end of the year.

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3507

Fund 1

Cost Center 2100

Originator: Tawni Helms

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3526

Fund 1

Cost Center 4530

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: GF transfer to Natural Resources - Climate Plan

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.169117	Operating Transfer Out	\$120,000
	Request Total		\$120,000

1a. Description of request:

Companion supplemental to provide funding for Natural Resources ASR 2021-6435 Climate Action Planner

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund fund balance

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3531

Fund 1

Cost Center 4530

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Public Safety Radio - GF Transfer

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.16700	Operating Transfer Out	\$70,147
	Request Total		\$70,147

1a. Description of request:

Companion Supplemental to Sheriff Emergency Management suppl #3397 to fund public safety radio system annual expenses from General Fund

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3388	Fund 1	Cost Center	Originator: M Caldwell
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: 2022 wage & benefit adjustments - Parks

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$2,043)
	6210	Retirement	(\$49,616)
	6230	Social Security	(\$102)
	6245	Medical Insurance	\$1,971
	6255	Other H&W Benefits	\$10,864
	6259	Worker's Comp-Interfund	\$3,120
	6269	Unemployment-Interfund	\$5
	Request Total		(\$35,801)

1a. Description of request:

To record 2% COLA, wage adjustments due to personnel turnover, reduction in retirement rates and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3303	Fund 1	Cost Center	Originator: Shannon Batdorf
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: Extra Help Rate Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6120	Extra Help	\$41,069
	6230	Social Security	\$3,142
	6269	Unemployment-Interfund	\$165
	Request Total		\$44,376

1a. Description of request:

Parks is proposing an hourly rate increase of \$2.00/hour for extra help employees to bring the hourly rate from \$15.00/hr to \$17.00/hr.

Breakdown by cost center:

6000.6120 - \$5,299.20
6000.6230 - \$405.39
6000.6269 - \$21.20
6003.6120 - \$25,028.00
6003.6230 - \$1,914.64
6003.6269 - \$100.11
6328.6120 - \$750.00
6328.6230 - \$57.38
6328.6269 - \$3.00
6335.6120 - \$2,716.00
6335.6230 - \$207.77
6335.6269 - \$10.86
6352.6120 - \$4,160.00
6352.6230 - \$318.24
6352.6269 - \$16.64
6002.6120 - \$2,850.00
6002.6230 - \$218.03
6002.6269 - \$11.40
6210.6120 - \$266.00
6210.6230 - \$20.35
6210.6269 - \$1.06

1b. Primary customers:

Visitation to all County parks and trails is at an all time high. Seasonal extra help staff is critical to maintain and operate these areas and this directly benefits the citizens of Whatcom County.

2. Problem to be solved:

Recruitment of qualified candidates has become increasingly challenging. One contributing factor continues to be the rising minimum wage and competitive job market. Current minimum wage is \$13.69/hour. The 2022 minimum wage will be announced this fall and is anticipated to be over \$14/hr. Offering a competitive wage that is commiserate with the skills we are looking for will enable us to better

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3303

Fund 1

Cost Center

Originator: Shannon Batdorf

recruit and maintain staff to provide the level of service our customers expect.

Additionally, offering a rate of pay that is reasonable in the current job market helps to reduce turn-over and encourages seasonal staff to return for multiple seasons. This significantly reduces time spent on recruiting, interviewing, orientating and training.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3324 Fund 1 Cost Center 6000 Originator: Shannon Batdorf

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Lodging Tax Lump Sum Payment to DOR

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7230	Taxes & Assess	\$35,000
	Request Total		\$35,000

1a. Description of request:

This request is for back payment of unpaid Special Hotel/Motel Lodging Tax due on the revenue from all transient lodging accommodations (cabins and campsites). This two percent special excise tax levied in the WCC 3.36.010 pursuant to RCW 67.28.180 was recently identified by the Department of Revenue as a tax that Whatcom County Parks is in fact subject to. Per the Department of Revenue, back payment is required dating back to January 1, 2017.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3328	Fund 1	Cost Center	Originator: Shannon Batdorf
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: Supply Cost Increases

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6320	Office & Op Supplies	\$7,000
	6320.002	Office & Op Supplies	\$4,000
	7060	Repairs & Maintenance	\$1,000
	Request Total		\$12,000

1a. Description of request:

Parks is requesting an increase in the budget for cleaning supplies, general supplies, and repair and maintenance due to increased visitation and enhanced cleaning protocols related to COVID. The volume of cleaning supplies now required to maintain facilities has increased due to these enhanced cleaning protocols and increased visitation. Increases in visitation are also resulting in an increase in supplies needed for repair and maintenance as well as additional septic pumping.

Closures due to COVID caused people to explore local parks, trails and campgrounds in record numbers. Between 2019 and 2020, parks saw an overall increase in visitation of 20%. Visitation at Silver Lake Park alone increased by over 100,000 visitors in 2020. This is all without seeing any of the usual Canadian visitors. This year, we are on point to break those records and expect visitation to soar even higher once the restrictions at the border are fully lifted.

6003.6320 - \$6000
6003.6320.002 - \$4000
6335.6320 - \$1000
6003.7060 - \$1,000

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3328

Fund 1

Cost Center

Originator: Shannon Batdorf

6. Funding Source:

Supplemental Budget Request

Status: Pending

Parks & Recreation

Suppl ID # 3329 Fund 1 Cost Center 6003 Originator: Shannon Batdorf

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Silver Lake Shower & Restroom Building Maintenance

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$15,000
	6980	Electric	\$15,000
	Request Total		\$30,000

1a. Description of request:

This request is for additional funding in professional services and electric related to the new shower and restroom facilities at Silver Lake Park

Professional Services:

6003.6610 - \$15,000 - Funding for maintenance contracts for Silver Lake Park septic systems required by the Department of Health for permitting the large on-site septic system.

Electric:

6003.6980 - \$15,000 - Utility increase due to the addition of new shower and restroom buildings at SLP.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Planning & Development Services

Administration

Suppl ID # 3389

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - PDS

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$259,332
	6210	Retirement	(\$56,369)
	6230	Social Security	\$19,909
	6245	Medical Insurance	\$56,909
	6255	Other H&W Benefits	\$23,583
	6259	Worker's Comp-Interfund	\$1,976
	6269	Unemployment-Interfund	\$694
	Request Total		\$306,034

1a. Description of request:

To record 2% COLA, the addition of 3 previously "frozen" positions, reduction in retirement rates and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Planning & Development Services

Building Services

Suppl ID # 3309

Fund 1

Cost Center 830

Originator: Mark Personius

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Fire Inspector Replacement Vehicle

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351	Operating Transfer Out	\$60,000
	Request Total		\$60,000

1a. Description of request:

Purchase a replacement Vehicle for assigned vehicle #124 (2008 Ford F150 pickup).

1b. Primary customers:

Whatcom County Citizens, permit applicants internal and external, Sheriff's Office Arson Investigation.

2. Problem to be solved:

When a new Fire Inspector position was authorized during the budget preparation process for the 2019-2020 Budget. Planning was given authorization to fill the position, however, not given budget authority to purchase a new vehicle. At the time, the vehicle we are currently requesting to replace had been replaced by Equipment Services and was heading to be auctioned. At the Executive's request, we asked Equipment Services to return the vehicle to us so the incoming Fire Inspector could use it. At the time we were told to request a new vehicle during the next budget approval process. Due to the budget constraints related to COVID, we were unable to request a new vehicle during the 2021-2022 budget approval process.

The vehicle #124 the Fire Inspector is currently driving has more than reached the end of its functional life span. It has over 160,000 miles on it and the equipment maintenance staff are not able to continue to keep it in safe working condition without a large investment of time and money. Our Fire Inspectors cover the entire county and are required to respond to emergency calls any time of day or night. They need safe, reliable transportation.

This truck is the only one being used by the Fire Inspectors that is not equipped for clean evidence storage or a heated bed to prevent molding and degradation of tools, evidence, electronics, and safety gear. The truck also has failing electronics, outdated radio systems, outdated emergency lights etc. From a uniformity standpoint it also looks drastically different from the other Inspector vehicles on emergency scenes, large scale work sites, and is no longer presenting a professional image for Whatcom County.

3a. Options / Advantages:

We have been operating under an option since 2019 when a new vehicle was needed and at this time there are no real viable options except replacement

3b. Cost savings:

The county has saved the cost of a new vehicle for several years but it cannot be delayed any longer.

4a. Outcomes:

Purchase of a replacement vehicle.

4b. Measures:

Vehicle will be purchased and fully equipped for Fire Inspector to do their work.

5a. Other Departments/Agencies:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Planning & Development Services

Building Services

Suppl ID # 3309

Fund 1

Cost Center 830

Originator: Mark Personius

This will enable the Fire Inspector to provide the Sheriff's Office with arson investigation services and Northwest Clean Air Agency with burn violation response.

5b. Name the person in charge of implementation and what they are responsible for:

PW Equipment Service-Eric Schlehuber

6. Funding Source:

General Fund--however, we request that finance explore the option of utilizing Federal relief funds to offset some/all of the cost.

Supplemental Budget Request

Status: Pending

Planning & Development Services

Building Services

Suppl ID # 3413

Fund 1

Cost Center 830

Originator: Curtis Metz, Mark Personi

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Fire Inspector Safety/Investigation Equipment

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6510	Tools & Equip	\$55,600
	Request Total		\$55,600

1a. Description of request:

Essential operating and safety equipment for Fire Inspectors to safely investigate fire. Fire Inspector gear is currently outdated or missing; Inspectors are often required to attend fire incidents as part of their investigation where dangerous and toxic conditions are present. They need the proper tools and safety gear to negotiate the site, collect the necessary evidence and store in a procedurally correct fashion.

1b. Primary customers:

Whatcom County Citizens, Northwest Clean Air Agency, Sheriff's Department

2. Problem to be solved:

The Fire Investigation/Arson Investigation is a very important service that our three Fire Inspectors provide to the community and our Sheriff's Department. In the past there was funding for some equipment through the Sheriff's Office. However, over the past few years there has been no ongoing mechanism for keeping the Fire Inspectors tools, equipment and safety gear up to date.

Many of the current necessary tools and equipment are either missing, broken or outdated. In order to ensure Fire Inspectors are able to safely respond to ongoing fire complaints or complete an investigation at a fire incident scene; to effectively do their jobs they need some updated equipment. There is a detailed list of equipment attached to this request providing more specific information. PDS is going to use existing 2021 budget authority for a portion of the equipment, however, for some of the larger tickets items it would require additional budget in 2022.

To explain just a few of the items on the list and their importance:

Scott Self Contained Breathing Apparatus (SCBA) \$42,000 - PDS Fire Inspectors must respond in what is considered "Immediate Danger for Life and Health" (IDLH) Environments which requires appropriate breathing apparatus. Currently we are not meeting the Washington Administrative Code (WAC) or National Fire Protection Association (NFPA) requirements regarding SCBAs for our inspectors. Each of our fire inspectors are responding 20 to 40 IDLH fires each year and their equipment is insufficient. While the cost is high, this is a 20-25 year investment if the proper maintenance is performed on the gear.

Bunker Gear - \$3,000 - PDS has one Fire Inspector using expired bunker gear. The gear is expired, ill fitting and wearing it does not provide adequate protection. The current gear does not meet WAC or NFPA standards.

Scene Light Packs-\$4,500 - Scene lighting for evening fires (the majority of the investigations), allow Fire Inspectors to investigate in a safe and timely fashion without having to hold a scene until daylight which greatly increases overtime hours and pay.

The remainder of the requested funds in the supplemental NFPA Coveralls, Drill/Saw Combination & 4-gas monitor \$6,100.

Supplemental Budget Request

Status: Pending

Planning & Development Services

Building Services

Suppl ID # 3413

Fund 1

Cost Center 830

Originator: Curtis Metz, Mark Personi

Our fire investigators each respond to 20-40 fires each year; this equates to more IDLH exposure than many full time fire fighters. While the cost of the specialized gear is high, this request would provide a "reset" for the Fire Marshal's Office; many of the items will not need to be replaced for 7 or more years. This will allow for the Fire Inspection team to be on a proper replacement and maintenance cycle providing them with critical Personal Protective Equipment to safely complete the vital role they fill in our community and for Whatcom County.

3a. Options / Advantages:

There are no viable options for the larger ticket items. We are stretching our budget authority to cover many of the smaller equipment needs. Some documentation indicates that this type of equipment may be covered by the Federal Relief Funding and presume Finance will explore this possibility.

3b. Cost savings:

4a. Outcomes:

The equipment will be purchased and put into use by Fire Inspectors and they can continue their work in more safe and protected manner.

4b. Measures:

Equipment and gear will be received and put into service

5a. Other Departments/Agencies:

Sheriff's Department, Northwest Clean Air Agency, Whatcom County Fire Districts

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund. However, some documentation indicates that this type of equipment may be covered by the Federal Relief Funding and presume Finance will explore this possibility.

Supplemental Budget Request

Status: Pending

Prosecuting Attorney

Suppl ID # 3390

Fund 1

Cost Center 2619

Originator: Louise Trapp

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Covid backlog request - Prosecuting Attorney

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$250,986
	6210	Retirement	\$28,742
	6230	Social Security	\$19,200
	6245	Medical Insurance	\$62,515
	6255	Other H&W Benefits	\$7,983
	6259	Worker's Comp-Interfund	\$2,496
	6269	Unemployment-Interfund	\$656
	6340	Books-Publications-Supsc	\$4,800
	6780	Travel-Educ/Training	\$1,168
	7115	Membership & Assoc Dues	\$1,000
	8301	Operating Transfer In	(\$379,546)
	Request Total		\$0

1a. Description of request:

The Prosecuting Attorney's Office is seeking approval to continue funding the two attorneys, a legal assistant, and a victim/witness coordinator to address the backlog of cases due to the pandemic.

The Prosecutor's Office needs the funding continued for these positions so that they can properly investigate and litigate the most serious cases, pursue the speedy resolution of criminal findings, and safeguard the rights of victims of crime.

1b. Primary customers:

The primary customers of this request are the citizens of Whatcom County and the victims of crime.

2. Problem to be solved:

The pandemic drastically interfered with the functioning of criminal courts. We have been unable to hold criminal jury trials for over a year, causing cases to be continued over and over again while prosecutors had no ability to force a resolution through trial. The pandemic led to fewer resolutions, which in turn caused an increase in our attorney's caseloads.

3a. Options / Advantages:

N/A

3b. Cost savings:

N/A

4a. Outcomes:

Increasing the number of attorneys and support staff is an ongoing benefit that allows us to meet the obligation of providing quality prosecutorial services to the people of Whatcom County. It allows us to better fulfill our role in the criminal justice system, leading to safer communities.

Supplemental Budget Request

Status: Pending

Prosecuting Attorney

Suppl ID # 3390

Fund 1

Cost Center 2619

Originator: Louise Trapp

4b. Measures:

Indicators of successful outcomes will be measured by the number of resolved cases and the reduction of caseloads per attorney.

5a. Other Departments/Agencies:

We expect that with continued funding for these positions there will be a positive impact on the courts, the Public Defender's Office, and the law enforcement agencies of Whatcom County.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

American Rescue Plan Act funds.

Supplemental Budget Request

Status: Pending

Prosecuting Attorney

Suppl ID # 3423 Fund 1 Cost Center Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 wage & benefit adjustments- Prosecuting Atty

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$57,666)
	6210	Retirement	(\$112,215)
	6230	Social Security	(\$4,459)
	6245	Medical Insurance	(\$16,698)
	6255	Other H&W Benefits	\$21,463
	6259	Worker's Comp-Interfund	(\$208)
	6269	Unemployment-Interfund	(\$122)
	Request Total		(\$169,905)

1a. Description of request:

Adjust 2022 wages and benefits for COLA, reductions caused by turnover in senior personnel, reduction in retirement rates and other changes in benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3401	Fund 1	Cost Center	Originator: M Caldwell
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: 2022 wage & benefit adjustments - Public Defender

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.1675	Coronavirus Emerg Supp Fds	(\$109,520)
	6110	Regular Salaries & Wages	\$67,582
	6210	Retirement	(\$60,342)
	6230	Social Security	\$5,211
	6245	Medical Insurance	\$5,059
	6255	Other H&W Benefits	\$17,332
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$192
	Request Total		(\$73,758)

1a. Description of request:

To record COLA, add 1 grant funded FTE and related revenue budget, reduce retirement rates and reflect changes in other benefit rates

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund and grant funding

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3419 Fund 1 Cost Center 2650 Originator: Starck Follis

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 Career Path Promotions

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$26,585
	6210	Retirement	\$3,257
	6230	Social Security	\$2,034
	6255	Other H&W Benefits	\$135
	6269	Unemployment-Interfund	\$69
	Request Total		\$32,080

1a. Description of request:

The costs associated with this request are for the career path promotions for four attorneys and one SKEP promotion for a legal assistant that are employees in the Whatcom County Public Defender's Office.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3426

Fund 1

Cost Center 2662

Originator: Julie Wiles

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: ARPA Continued Funding for 9 temp positions

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$632,087
	6210	Retirement	\$71,916
	6230	Social Security	\$48,355
	6245	Medical Insurance	\$147,744
	6255	Other H&W Benefits	\$18,132
	6259	Worker's Comp-Interfund	\$6,136
	6269	Unemployment-Interfund	\$1,647
	6320	Office & Op Supplies	\$7,000
	6340	Books-Publications-Supsc	\$8,000
	6720	Telephone	\$1,500
	6760	Miscellaneous Communicat	\$2,030
	6780	Travel-Educ/Training	\$3,000
	6790	Travel-Other	\$4,800
	6810	Advertising	\$2,000
	6860	Equipment Rental	\$2,900
	7115	Membership & Assoc Dues	\$3,225
	8301	Operating Transfer In	(\$960,472)
	Request Total		\$0

1a. Description of request:

The Whatcom County Public Defender's Office requests continued funding for 2022 for temp FTE positions: four attorneys, two investigators, one behavioral health specialist and two legal assistants. We also request funding for office supplies, training, books/Westlaw subscriptions, advertising for positions, office equipment, equipment rental for copy machine, funds for cell phones, added costs for our phone bill, travel costs for investigators, membership dues for the Washington State Bar Association and member dues for the Washington Defender Association.

1b. Primary customers:

Indigent defendants in the Whatcom County Superior and District Courts and respondents in Whatcom County Juvenile Court and Involuntary Treatment Act Proceedings.

2. Problem to be solved:

Current pending caseloads have soared due to the Covid-19 pandemic. For over 1.5 years, we have had no jury trials held in Whatcom County courts and case resolutions have come to a near standstill. Additional impediments to case resolutions include the inability to conduct in-person meetings with clients, victim/witnesses, and opposing counsel, increases in the seriousness of the cases pending and higher

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3426

Fund 1

Cost Center 2662

Originator: Julie Wiles

recidivism rates due to restrictions on booking standards. As a result of the pandemic, the Public Defender's Office has seen open caseloads rise to intolerable levels and experienced lawyers have departed the office, in part due to those heavy caseloads.

3a. Options / Advantages:

The necessary reassignment of cases from attorneys who have departed the office, absences due to FMLA, and exceedingly high open caseloads have caused the Public Defender to send unprecedented number of cases back to the Office of Assigned Counsel. The result is a far less cost-effective defense. The Office of Assigned Counsel's budget for contracted private lawyers will be exceeded in 2021 by a large amount.

3b. Cost savings:

This request should be fulfilled with ARPA funds.

4a. Outcomes:

With additional staffing, the Public Defender's Office will be able to accept more cases, subject to the limitations of Standards of Indigent Defense and the Office of Assigned Counsel will require fewer contract attorneys. Continued additional staffing will also allow us to reduce assignments to attorneys who are carrying excessive open caseloads, which is critical to retaining our current employees.

4b. Measures:

Continued funding will allow our department to function within the Standards for Public Defense and comply other grant funding requirements and allow for better staff retention and morale.

5a. Other Departments/Agencies:

Granting this request will have a positive impact on the Courts and the P.A.'s office. Continuing with more legal staff to process and adjudicate cases will help to alleviate the backlog of cases as a result of the pandemic. In addition, the additional staff will be able to better communicate with the P.A.'s office on cases in order to resolve matters as efficiently as possible.

5b. Name the person in charge of implementation and what they are responsible for:

None

6. Funding Source:

The funding source is the ARPA funding.

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3437	Fund 1	Cost Center 2662	Originator: Julie Wiles
Year 2 2022	Add'l FTE <input checked="" type="checkbox"/>	Priority 1	

Name of Request: ARPA Extra Help for First Appearance Hearings

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6120	Extra Help	\$30,000
	8301	Operating Transfer In	(\$30,000)
	Request Total		\$0

1a. Description of request:

This extra help request is to provide funding for an attorney who will represent our clientele at First Appearance hearings one to two days per week. We have had an attorney who is extra help already working in our office who has been doing our first appearances and we would like to keep him on staff for 2022. That attorney has been grant-funded through 2021 through OPD and has not impacted the General Fund. The grant expires at the end of 2021.

1b. Primary customers:

The primary customers are indigent defendants in the Whatcom County Superior and District Courts.

2. Problem to be solved:

This request addresses the increased work load the exceedingly high case loads the regular FTE attorneys are handling due to Covid-19, while at the same time representing our clientele in first appearance hearings that are referred to our office by the Courts. Our department constantly strives to stay within the State Standards of Public Defense by ensuring that our attorneys do not represent more clientele than what the State Standards indicate.

3a. Options / Advantages:

The only other option is to assign the regular staff attorneys to represent those clientele in First Appearance Hearings and this will drive up the case limits the attorneys have with regard to the State Standards.

3b. Cost savings:

Our department will operate with more efficiency. Having this attorney assigned to conduct First Appearance Hearings one to two days per week will help ensure the regular full time attorneys will be able to concentrate on their assigned criminal cases and hopefully stay within State Standards.

4a. Outcomes:

Granting this request will allow our department to focus on ensuring (to the extent possible) that the criminal referrals we are assigned, will be handled according to State Standards of Public Defense.

4b. Measures:

Granting this request will help to ensure we continue to receive grant funds from the Office of Public Defense (as we have to stay within State Standards in order to continue receiving this funding). In addition, granting this request will have a very positive impact on staff morale.

5a. Other Departments/Agencies:

Granting this request will have a positive impact on the Courts and the Prosecuting Attorney's Office. The Courts and the P.A's office have developed a working relationship with the person currently handling our First Appearances and this has had a positive impact on our department.

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3437

Fund 1

Cost Center 2662

Originator: Julie Wiles

5b. Name the person in charge of implementation and what they are responsible for:

None

6. Funding Source:

This request should be funded by the ARPA funding source.

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3455

Fund 1

Cost Center 2650

Originator: Julie Wiles

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: *Reclassification for two Investigator positions*

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$10,687
	6210	Retirement	\$1,094
	6230	Social Security	\$816
	6255	Other H&W Benefits	\$15
	6269	Unemployment-Interfund	\$26
	Request Total		\$12,638

1a. Description of request:

We are reclassifying two of our Investigators to the positions of Investigator II.

1b. Primary customers:

The primary customers are indigent clients accused of a large range of criminal offenses ranging from misdemeanor offenses to the most serious felony offenses.

2. Problem to be solved:

Retention of high-quality criminal defense investigators who are difficult and time consuming to find replacement at the same level of qualifications.

3a. Options / Advantages:

The ability to offer a larger range for current investigators and provide future candidates a step process that yields future options to move upward as their abilities and skill sets are mastered.

3b. Cost savings:

Allows the office the ability to retain and attract highly trained and educated investigative staff who typically require years of ongoing training and education to reach.

4a. Outcomes:

Higher staff morale.

4b. Measures:

Higher staff retention.

5a. Other Departments/Agencies:

Courts and the P.A.'s office will both be impacted and benefit by having experienced investigators who can testify in Court and work with the P.A.'s office.

5b. Name the person in charge of implementation and what they are responsible for:

None

6. Funding Source:

The funding source is the General Fund.

Supplemental Budget Request

Status: Pending

Public Defender

Suppl ID # 3502

Fund 1

Cost Center 2650

Originator: Julie Wiles

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Funding for Hiring Investigator @ step 8

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$13,246
	6210	Retirement	\$1,357
	6230	Social Security	\$1,013
	6255	Other H&W Benefits	\$19
	6269	Unemployment-Interfund	\$34
	Request Total		\$15,669

1a. Description of request:

The costs associated with the difference between filling a currently funded Investigator position (1.0 FTE) at step at step 8, rather than at step 3.

1b. Primary customers:

Public Defender clientele.

2. Problem to be solved:

The Public Defender's Office is currently funded at step 3 for this Investigator position and we would like to hire a specific candidate at step 8 in order to compensate him for his 20 plus years of experience.

3a. Options / Advantages:

This is the best option in order to hire the person with the most experience who will be able to handle a regular large caseload without any training.

3b. Cost savings:

We will not have to spend months training a candidate with far less experience.

4a. Outcomes:

The ability to hire and compensate a candidate for his experience in the field of criminal investigations.

4b. Measures:

Successful recruitment of qualified candidate.

5a. Other Departments/Agencies:

The Courts and the P.A.'s office will benefit by having an experienced investigator who will be able to navigate the legal system with ease.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The Whatcom County General Fund.

Supplemental Budget Request

Status: Pending

Sheriff

Operations

Suppl ID # 3299

Fund 1

Cost Center 1003521004

Originator: Dawn Pierce

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: DOC DTF JAG FY18

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.1673	Byrne JAG Grant	(\$77,500)
	Request Total		(\$77,500)

1a. Description of request:

Interagency agreement for federal funding to help support positions in the Sheriff's Office: one-half of a clerk position and a portion of one detective assigned to the Whatcom Gang and Drug Task Force. Expenses for personnel are already included in the budget. Total grant award is \$155,053; approximately half will be received in 2021 and half in 2022.

1b. Primary customers:

Whatcom Gang and Drug Task Force

2. Problem to be solved:

This request records the grant revenue.

3a. Options / Advantages:

Funds were awarded specifically to support positions in the Whatcom Gang and Drug Task Force. They may not be used for any other purpose.

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Federal pass-through grant funds in the amount from State of Washington Department of Commerce. Funds originate from U.S. Department of Justice (DOJ), Justice Assistance Grant Program, CFDA No. 16.738

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Suppl ID # 3402

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Sheriff

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$241,551
	6210	Retirement	(\$13,973)
	6230	Social Security	\$18,116
	6245	Medical Insurance	\$22,517
	6255	Other H&W Benefits	\$4,307
	6259	Worker's Comp-Interfund	\$832
	6269	Unemployment-Interfund	\$686
	Request Total		\$274,036

1a. Description of request:

To record COLA, add back 2 previously "frozen" positions, adjust wages for turnover in personnel, reduce PERS rates, and record other changes in benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Suppl ID # 3431

Fund 1

Cost Center 2900

Originator: Doug Chadwick

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Sheriff's Office Coordinator -Temp with Benefits

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$43,992
	6210	Retirement	\$4,509
	6230	Social Security	\$3,365
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,868
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$114
	Request Total		\$70,992

1a. Description of request:

The Sheriff's Office is requesting to hire a full-time temporary coordinator position to assist and support the Chief Inspector responsible for the Office of Professional Standards (OPS). The office has a Chief Inspector, but no additional support staff. The Office of Professional Standards has primary responsibility for the development and implementation of new policy and procedures for the Sheriff's Office (both Corrections, Law Enforcement and Support staff). In addition, OPS is responsible for intake/processing of citizen complaints and conducting administrative investigations into employee misconduct, as well as responding to large public disclosure requests for documents and information. Due to recent changes in legislation and public focus on police reform, the Sheriff's Office has experienced a significant increase in public records requests, as well as time sensitive updates to policies in order to comply with the new laws.

The Sheriff's Office is currently updating policies and transitioning to the Lexipol policy manual for both Law Enforcement and Corrections. Currently, the County Code pertaining to jail operations has been suspended until the new policies can be updated and accessed by the public online. In order to complete the Corrections Policy Manual, we need to allow the Chief to prioritize the development and implementation of new policies. Due to the significant workload, it will require the delegation of some of the OPS responsibilities. The addition of the Coordinator position would assume much of the PDR and citizen complaint processing and allow the Chief to focus on the Lexipol policy manuals.

1b. Primary customers:

The citizens of Whatcom County

2. Problem to be solved:

The workload placed upon the one (1) FTE that we have working in OPS has exceeded that which can be reasonably accomplished in a timely manner. In order to allow the Chief to focus on policy development and implementation, it is necessary to bring in additional support staff to assist with the workload

3a. Options / Advantages:

We considered hiring an FTE to develop and implement policy, however it would be challenging to find someone with the skills and law enforcement/institutional knowledge necessary to write Sheriff's Office policy.

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Suppl ID # 3431

Fund 1

Cost Center 2900

Originator: Doug Chadwick

3b. Cost savings:

While difficult to quantify, having updated Lexipol policies in place will potentially reduce liability related to employee performance/misconduct and associated litigation.

4a. Outcomes:

Completion of the Corrections and Law Enforcement Policy Manuals. Six (6) months to one (1) year for completion of both manuals. Priority will be to complete Corrections manual first, due to the current status of the suspended County Code related to jail operations and administration.

4b. Measures:

Update Corrections and Law Enforcement Policy Manuals will be published, searchable and accessible to the public online. Policies will then be updated annually as needed.

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Sheriff

Operations

Suppl ID # 3439

Fund 1

Cost Center 2940

Originator: Doug Chadwick

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Training Mandates

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6780	Travel-Educ/Training	\$16,500
	7110	Registration/Tuition	\$8,500
	Request Total		\$25,000

1a. Description of request:

This proposal is for funding to support mandated training for Sheriff's Office personnel.

The Sheriff's Office is submitting a corresponding supplemental budget for overtime needed to backfill shift vacancies in order to accomplish the mandated training and maintain minimum staffing for 24/7 operations (see corresponding supplemental ID# 3472).

1b. Primary customers:

All commissioned deputies of the Whatcom County Sheriff's Office.

2. Problem to be solved:

Training is an essential component for safe law enforcement functions. The laws regarding criminal justice reform require every deputy/certified peace officer to undergo an additional 40 hours of training in regards to Initiative 940 (I-940). The newly passed laws require every WCSO deputy be re-trained in use of force, pursuit driving, and receive continuing training for de-escalation, first aid/combat medical training, re-certification on less-lethal devices, intervention techniques, body camera requirements, and basic call response incorporating the requirements of utilizing mental health professional. These trainings are required either annually for all commissioned personnel, with the 40 hours requirement being every third year.

In addition, the Sheriff's Office provides deputies with less-lethal devices to ensure the deputies have the necessary tools and equipment to safely de-escalate incidents. Recent legislative changes now prohibit the use of less-lethal devices previously used by the Sheriff's Office. The Whatcom County Prosecuting Attorney advised in the attached memo, "Due to the legislative prohibition on these types of devices, the Whatcom County Sheriff's Office will need to find other options for less lethal devices that fit within the confines of ESHB 1054." Therefore, the Sheriff's Office is acquiring new less-lethal devices. The new equipment needed to comply with the new laws will also require additional training for safety and proficiency.

3a. Options / Advantages:

There are no reasonable alternatives. The additional training associated with I-940 is State mandated. And the additional training associated with new less-lethal equipment is required for the safe and proficient use of the equipment.

3b. Cost savings:

Training is a cost saving in potential liability and risk management.

4a. Outcomes:

The additional training will allow the Sheriff's Office to comply with State mandates. Deputies will be

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Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Sheriff

Operations

Suppl ID # 3439

Fund 1

Cost Center 2940

Originator: Doug Chadwick

better trained to de-escalate volatile incidents.

4b. Measures:

The positive outcome will be measurable by being in compliance with the law and having skills to de-escalate volatile incidents and preserve human life.

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Washington State Funding for Whatcom County Criminal Justice Legislation.
Authorized under Section 740, Chapter 3334, Laws of 2021 (ESSB 5092).

Supplemental Budget Request

Status: Pending

Sheriff

Operations

Suppl ID # 3472

Fund 1

Cost Center 2940

Originator: Doug Chadwick

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Overtime for Training Mandates

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6140	Overtime	\$21,611
	6210	Retirement	\$1,145
	6230	Social Security	\$1,653
	6259	Worker's Comp-Interfund	\$535
	6269	Unemployment-Interfund	\$56
	Request Total		\$25,000

1a. Description of request:

The Sheriff's Office requests additional overtime funds needed to backfill shift vacancies in order to accomplish training mandates and maintain minimum staffing for 24/7 operations (see Training Mandate supplemental ID# 3439).

1b. Primary customers:

2. Problem to be solved:

Training is an essential component for safe law enforcement functions. The laws regarding criminal justice reform require every deputy/certified peace officer to undergo an additional 40 hours of training in regards to Initiative 940 (I-940). The newly passed laws require every WCSO deputy be re-trained in use of force, pursuit driving, and receive continuing training for de-escalation, first aid/combat medical training, re-certification on less-lethal devices, intervention techniques, body camera requirements, and basic call response incorporating the requirements of utilizing mental health professional. These trainings are required either annually for all commissioned personnel, with the 40 hours requirement being every third year.

In addition, the Sheriff's Office provides deputies with less-lethal devices to ensure the deputies have the necessary tools and equipment to safely de-escalate incidents. Recent legislative changes now prohibit the use of less-lethal devices previously used by the Sheriff's Office. The Whatcom County Prosecuting Attorney advised in the attached memo, "Due to the legislative prohibition on these types of devices, the Whatcom County Sheriff's Office will need to find other options for less lethal devices that fit within the confines of ESHB 1054." Therefore, the Sheriff's Office is acquiring new less-lethal devices. The new equipment needed to comply with the new laws will also require additional training for safety and proficiency.

The additional training requirements will have an impact on 24/7 patrol coverage. Overtime will be needed to backfill shift vacancies in order to accomplish the mandated training and maintain minimum staffing requirements.

3a. Options / Advantages:

Overtime will be needed in order to accomplish state mandated training associated with I-940 and the additional training associated with acquiring new less-lethal equipment.

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Supplemental Budget Request

Status: Pending

Sheriff

Operations

Suppl ID # 3472

Fund 1

Cost Center 2940

Originator: Doug Chadwick

3b. Cost savings:

4a. Outcomes:

The additional training will allow the Sheriff's Office to comply with state mandates. Deputies will be better trained to de-escalate volatile incidents.

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Washington State Funding for Whatcom County Criminal Justice Legislation.
Authorized under Section 740, Chapter 334, Laws of 2021 (ESSB 5092).

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Suppl ID # 3449

Fund 1

Cost Center 2900

Originator: Doug Chadwick

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Law Enforcement Wellness Programs

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$57,000
	6635	Health Care Services	\$25,000
	Request Total		\$82,000

1a. Description of request:

A web-based application that encompasses a wealth of resources for physical, emotional and mental health and wellness of employees and employee's family members. To address, in part, first responder trauma. This program builds off of the existing county EAP program.

1b. Primary customers:

All employees of the Sheriff's Office and their immediate family members

2. Problem to be solved:

It is an undeniable fact that Law Enforcement officers work in a dangerous profession. This profession is unlike any other within the career field and unlike any other entity or department within county, city or federal government. No other county entity or unit outside of Law Enforcement has a concern about or pattern of being assaulted while performing their assigned duties.

While some jobs within the government contain risk of occupational injury, Law Enforcement officers have a significantly higher rate of injury and death – not only from occupational injury but from assaults perpetrated by violent suspects. There are numerous studies and surveys to support these claims. If one were to take a few minutes searching for this data it is supported by the US Bureau of Labor and Statistics, the US Center for Disease Control and Prevention and the Department of Justice to name a few.

- A total of 1,763 law enforcement officers died in the line of duty during the past 10 years, an average of 176 per year. There were 306 law enforcement officers killed in the line of duty in 2020. That represents almost 6 deaths per week in the line of duty. Incidentally, the deadliest year in Law Enforcement history was 1930 where 312 officers were killed in the line of duty. It is startling to note that almost 100 years later, the industry still carries a high lethality.

- According to the FBI's Uniform Crime Report 2019 Law Enforcement Officers Killed (LEOKA) report: There were 56,034 assaults against law enforcement officers in 2019, resulting in 17,188 injuries.

- Police officers have a higher risk of incurring a work-related injury or illness than most other occupations. On average, 115 police and sheriff's patrol officers suffered fatal work injuries each year from 2003 to 2014. Another 30,990 nonfatal injuries involving days away from work were reported for police and sheriff's patrol officers on average each year from 2009 to 2014.

- The rate of fatal work injuries for police officers in 2014 was 13.5 per 100,000 full-time equivalent workers, compared to 3.4 for all occupations. Similarly, the rate of nonfatal occupational injuries and illnesses involving days away from work among police officers was 485.8 cases per 10,000 full-time workers in 2014; the rate was 107.1 cases for all occupations.

- Not only does law enforcement have the concern of injury or death within the line of duty, studies have shown that the average life expectancy of a police officer is 21.9 years less than the general population. Factors believed to contribute to this alarming number are: stress, shift work, obesity and hazardous work

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Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Supp'l ID # 3449

Fund 1

Cost Center 2900

Originator: Doug Chadwick

exposures. (Violanti, et al National Library of Medicine, 2013:15(4):217-28)

The supportive data largely discusses physiological risks and hazards of working in Law Enforcement. However, what is more devastating and pervasive is the toll the career takes on mental health.

The leading cause of death among Law Enforcement is suicide. This is a trend that has climbed year to year in the last 5 years. On a daily basis, Law Enforcement officers deal with human trauma and suffering. They encounter grisly crime scenes and see the parts of society not many other people have to witness. They have notified parents whose children were killed in a car wreck. They have held dead children in their arms. They have seen the signs and effects of physical and emotional abuse perpetrated by one person to another. Law Enforcement officers often miss holidays and family events due to the emergent nature of the work and shift work. Regardless of their current rank, assignment, or stage in life – every law enforcement officer carries an emotional burden that most people cannot fathom.

These are some of the things that cannot be un-seen or un-experienced.

It is a plain reality that as a law enforcement officer you are consistently concerned with things such as:

- Being a target for murder as a result of your position
 - Being violently attacked as a result of your position
 - Being faced with the potential of taking another human life
 - Losing freedom, retirement, and personal assets due to a lawsuit
 - Being in an auto accident at a high rate of speed (during a vehicle pursuit or emergency code run)
 - Having your family being targeted at your home by persons who harbor ill-will toward law enforcement
- Aside from the mandated EAP, Whatcom County and the Sheriff's Office have no wellness or resiliency program in place.

A program such as this will help to mitigate some of the stresses mentioned above, provide industry specific support on a 24/7 emergent and ongoing basis and provide tools to prevent and rehabilitate both physical and psychosocial injury.

3a. Options / Advantages:

We have considered trying to hire a dedicated mental health professional for the Sheriff's Office, a nutritionist and a 'wellness' coordinator who would help implement fitness programs. To hire one of those positions as an FTE would greatly exceed the cost of this proposed program.

3b. Cost savings:

The cost for the proposed program is \$57,000 for a 3-year contract. We are also seeking an additional \$25,000 per year to fund individual critical incident debriefing appointments with an identified trauma certified therapist, as well as fund additional training and wellness program options.

4a. Outcomes:

The outcome will be a robust wellness program with numerous resources at the fingertips of every employee and family member of the Sheriff's Office.

This will be available shortly after the contract is finalized.

4b. Measures:

The company makes it possible to retrieve anonymous analytics to assess which aspects of the program are being utilized and when.

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

None

6. Funding Source:

The American Rescue Act/CARES funding due to the stresses of working throughout and continuing to

Supplemental Budget Request

Status: Pending

Sheriff

Administration

Suppl ID # 3449

Fund 1

Cost Center 2900

Originator: Doug Chadwick

work without interruption during the COVID 19 global pandemic.

Supplemental Budget Request

Status: Pending

Superior Court

Suppl ID # 3403

Fund 1

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Superior Ct

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$26,761
	6210	Retirement	(\$35,565)
	6230	Social Security	\$2,242
	6245	Medical Insurance	(\$8,386)
	6255	Other H&W Benefits	\$7,476
	6269	Unemployment-Interfund	\$69
	Request Total		(\$7,403)

1a. Description of request:

To record COLA, adjust wages for personnel turnover, reduce retirement rates and adjust for changes in other benefit rates

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Superior Court

Suppl ID # 3451

Fund 1

Cost Center 3113

Originator: David Reynolds

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: ARPA Wages and benefits 2022-Superior Ct

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$241,670
	6120	Extra Help	\$38,155
	6210	Retirement	\$29,605
	6230	Social Security	\$18,488
	6245	Medical Insurance	\$32,832
	6255	Other H&W Benefits	\$4,541
	6259	Worker's Comp-Interfund	\$1,456
	6269	Unemployment-Interfund	\$630
	6320	Office & Op Supplies	\$750
	6860	Equipment Rental	\$2,000
	8301	Operating Transfer In	(\$370,127)
	Request Total		\$0

1a. Description of request:

To continue funding ARPA commissioner and judicial assistant positions in 2022 to deal with COVID-related backlog.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

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Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Superior Court

Suppl ID # 3451

Fund 1

Cost Center 3113

Originator: David Reynolds

American Rescue Plan Act

Supplemental Budget Request

Status: Pending

Treasurer

Suppl ID # 3357 Fund 1 Cost Center 3300 Originator: Steve Oliver

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: Statement Postage

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6710	Postage/Shipping/Freight	\$5,300
	Request Total		\$5,300

1a. Description of request:

First class postage increase of \$0.03, flats postage increase of \$0.36, foreign postage increase estimated \$0.30 for 2022

1b. Primary customers:

2. Problem to be solved:

Postage rates for 2022 tax statement mailing have increased. First Class increase is \$0.03, flats increase is \$0.36, and estimated foreign \$0.30/

3a. Options / Advantages:

n/a

3b. Cost savings:

n/a

4a. Outcomes:

The Treasurer is required by RCW 84.56.020 to distribute a tax statement to each taxpayer.

4b. Measures:

5a. Other Departments/Agencies:

all Whatcom County taxing districts and special assessment agencies.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Treasurer

Suppl ID # 3404 Fund 1 Cost Center 3300 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 wage & benefit adjustments - Treasurer

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$10,182)
	6210	Retirement	(\$21,390)
	6230	Social Security	\$1,369
	6245	Medical Insurance	\$974
	6255	Other H&W Benefits	\$4,855
	6269	Unemployment-Interfund	\$54
	Request Total		(\$24,320)

1a. Description of request:

To record COLA, adjust wages for turnover in personnel, reduce retirement rates and reflect other changes in benefit rates.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Treasurer

Suppl ID # 3434 Fund 1 Cost Center 3300 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 Property Tax & Interest Inc Adjustment

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4311.1000	Current Year Collections	(\$650,000)
	4361.1100	Investment Interest	(\$468,000)
	Request Total		(\$1,118,000)

1a. Description of request:

Increase 2022 property tax collections based on \$600 million new construction and higher collection rate than previously projected during the biennial budget process.

Increase interest income from \$732,000 current budget to \$1.2 million based on input from Treasurer Chief Deputy Karen Thomas.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund property tax & interest income

Supplemental Budget Request

Status: Pending

WSU Extension

Suppl ID # 3384

Fund 1

Cost Center 2000

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - WSU Extension

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$2,460
	6210	Retirement	(\$2,963)
	6230	Social Security	\$189
	6245	Medical Insurance	\$542
	6255	Other H&W Benefits	\$790
	6269	Unemployment-Interfund	\$8
	Request Total		\$1,026

1a. Description of request:

Record 2% COLA, reduction in retirement rates and other changes in benefit rates

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Public Works

Administration

Suppl ID # 3386

Fund 108

Cost Center 10895

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Funding Ferry SBR 3377

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.444	Operating Transfer Out	\$2,475
	Request Total		\$2,475

1a. Description of request:

See Ferry Supplemental Budget Request.

The Road Fund is required to contribute 45% to Ferry expenditures.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3301

Fund 108

Cost Center 108106

Originator: Eric Schlehuber

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Carryover of 2021 Capital Improvement Projects

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7060.543500	Repairs & Maintenance	\$75,000
	7060.543500	Repairs & Maintenance	\$25,000
	7380.594430	Other Improvements	\$60,000
	Request Total		\$160,000

1a. Description of request:

To carryover the following 2021 capital improvement projects that are not expected to be completed before 2021 year end, due to staffing shortages, vacancies and COVID related delays:

Road oil equipment building maintenance reviewed)	\$25,000 (original request was \$25K, AS-Facilities reviewed)
N Truck Shed steel I-beam replacements reviewed)	\$75,000 (original request was \$25K, AS-Facilities reviewed)
Concrete pads for sanders reviewed)	\$60,000 (original request was \$30K, AS-Facilities reviewed)
Total	----- \$160,000

1b. Primary customers:

M&O and ER&R.

2. Problem to be solved:

Due to staffing shortages, vacancies and the general building construction and maintenance issues due to COVID over the past 6-9 months, delays have occurred in procuring specs and quotes for these capital projects and will require carryover to 2022 to complete.

3a. Options / Advantages:

Due to budget and staffing constraints during 2021 this is the only option to complete these projects.

3b. Cost savings:

None.

4a. Outcomes:

When the capital improvement projects are complete.

4b. Measures:

When finished.

5a. Other Departments/Agencies:

M&O and Facilities.

5b. Name the person in charge of implementation and what they are responsible for:

Facilities, Rob Ney.

6. Funding Source:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Supp'l ID # 3301

Fund 108

Cost Center 108106

Originator: Eric Schlehuber

Same as before: Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3319

Fund 108

Cost Center 108100

Originator: Gina Miller

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 3500 Gallon Oil Distributor

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.501	Operating Transfer Out	\$360,000
	Request Total		\$360,000

1a. Description of request:

Upgrade a previously approved 1500 gallon, tandem axle oil distributor to a 3500 gallon tandem axle oil distributor. The request is to change the tank size specified on the previous approval.

1b. Primary customers:

All road users.

2. Problem to be solved:

ASR 2021-6155 was approved to purchase a new 1500 gallon, tandem axle oil distributor. The old equipment, a 3500 gallon tandem axle oil distributor, has been used in the interim. It has been identified that the larger tank capacity is very efficient and purchasing a new truck with a smaller, 1500 gallon tank would reduce productivity by increasing trips to refill and carrying less product to the job site. We would not like to move forward with a 1500 gallon truck.

3a. Options / Advantages:

One option is to continue to use the 28 year old truck. This is not desirable because it is past the replacement life, reliability is a concern and maintenance costs increase with vehicle age. Another option is to only use one truck. This is undesirable because it cuts productivity in half and increases overall overtime wage cost.

This is the best option because it improves operational efficiency, equipment reliability and provides the right tool for the job.

3b. Cost savings:

There will be less machines to maintain, this cost varies depending on trailer use and equipment use but averages 20K per year savings. There will be a savings of maintaining a 27 year old distributor and associated down time. The downtime of the crew alone costs \$2000 per hour. Operating with a single distributor ensures downtime each time it leaves the worksite to reload oil (7-8 times per day.)

4a. Outcomes:

Chip sealing will be completed more efficiently and expediently freeing up large crews for other work during the Fish Window. Downtime will be reduced. New equipment will be more reliable.

4b. Measures:

The chip seal program will complete more miles in less days than with one truck. Crew will stop less waiting for material to be delivered and mechanics will work on old equipment less.

5a. Other Departments/Agencies:

Yes, Equipment Services will facilitate the purchase and maintenance of the new equipment.

5b. Name the person in charge of implementation and what they are responsible for:

Eric Schlehuber, Equipment Services manager.

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3319

Fund 108

Cost Center 108100

Originator: Gina Miller

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3332

Fund 108

Cost Center 108100

Originator: Michael Koenen

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Safety Training Vehicle

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.501	Operating Transfer Out	\$55,000
	Request Total		\$55,000

1a. Description of request:

To add a new 1/2 ton 4x4 extended cab pickup truck for the person hired as the Safety and Training Specialist.

This would be an addition to the ER&R fleet.

1b. Primary customers:

All road users would benefit as a result of safer work zones and better trained county road workers.

2. Problem to be solved:

M&O is currently in the process of filling an Industrial Safety and Training Specialist in order to reduce accidents and improve training for our work force. The person that fills this position will need a vehicle that is dedicated to them in order to maintain the tools of the job in one vehicle and so the safety specialist can make on the job safety inspections. Having a dedicated vehicle to this position will allow for prompt responses to accidents involving county employees or vehicles.

3a. Options / Advantages:

The other option would be for the safety and Training Specialist to use another vehicle from the current fleet. Using whatever vehicle is available is not the best option because the needs of the field crews varies by project and there may not be a suitable vehicle for the safety person to utilize. The additional vehicle would be the best option because it would allow the employee to have a consistent vehicle to store and transport tools necessary for the job and allow the specialist the ability to conduct field inspections and trainings without having an impact on the vehicle needs of other crews.

3b. Cost savings:

Cost savings would include more efficient use of time and preventing excessive fuel use. Extra valuable time would be required if the Industrial Safety and Training Specialist had to load and unload tools and materials each day from different vehicles that are in the current fleet. Dedicating one of the vehicles from the current fleet would require the use of larger and less efficient trucks for tasks that generally would not require something as large.

4a. Outcomes:

The outcome is having a Safety and Training Specialist that can respond quickly to accident sites, consistently travel with the tools needed for on site safety inspections and have the flexibility to conduct field visits. The outcome would be delivered as soon as the specialist is able to get into the field.

4b. Measures:

Success will be known when the safety and Training Specialist is able to perform their duties without wasting time looking for searching for a vehicle to drive and having to move equipment from one place to another repetitively.

5a. Other Departments/Agencies:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

1727

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3332

Fund 108

Cost Center 108100

Originator: Michael Koenen

The Equipment Services division of Public Works will be impacted as they will have to add another vehicle to the fleet.

5b. Name the person in charge of implementation and what they are responsible for:

Equipment services will be responsible for purchasing and maintaining the vehicle.

6. Funding Source:

Road Fund,

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3338

Fund 108

Cost Center 108100

Originator: Michael Koenen

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: Engineering Tech for M&O

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110.542900	Regular Salaries & Wages	\$51,500
	6290.542900	Applied Benefits	\$38,107
	Request Total		\$89,607

1a. Description of request:

The Maintenance and Operations division of Public Works is requesting approval to hire 1 Engineering Technician FTE. This employee will provide technical assistance for project planning, plans interpretation and permitting assistance to our 7 crew leaders.

1b. Primary customers:

Maintenance and Operations personnel. The Engineering Technician will provide knowledge expertise and administrative support to the personnel performing the work. This support will improve safety and services, increase efficiency, and provide a quality product to all road users.

2. Problem to be solved:

The maintenance and repair work managed by the Crew Leaders and Supervisors has become more complex and difficult due to changes in requirements and regulations. These changes require the Crew leaders and Supervisors to interpret standards and regulations, design/engineer repairs, procure advanced and lengthy permitting, and other administrative functions of which they are neither trained nor licensed for. In turn, management of the core work is suffering as Crew Leaders and Supervisors are pulled away from managing job site safety, workforce distribution/allocation/planning/coordination, job site quality control and assurance, and training.

The problem is further exacerbated by a full Crew Leader turnover over within the last 3 years. With all the Crew Leaders being new or relatively new to their positions, there are technical aspects of the core job duties that they are still learning. The recent serious employee accident reinforced PW's intention to prioritize a safer workplace that adheres to industry standard specifications. The realigned priority of safety and quality has highlighted new challenges and procedures that affect productivity. The additional FTE will add to our safety effort by alleviating some of the additional advanced duties the crew leaders are asked to perform, leaving them to focus on the safety of their crews and effecting quality work on Whatcom County roadways.

3a. Options / Advantages:

Hiring an Engineering Technician is the best option because it provides M&O with a skilled employee solely dedicated to assisting the crew leaders with their technical needs. The ideal engineering candidate is trained in the various permitting processes required for working near or in water, has knowledge of materials needed for different types of road projects in accordance with WSDOT standards and is available to help with the interpretation and or development of project plans.

Other options include:

The use of other engineers within Public Works. This option is problematic as the engineering pool is shorthanded and already dedicated to funded projects.

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3338

Fund 108

Cost Center 108100

Originator: Michael Koenen

The use of outside consultants. This option is much more expensive and limited to the scope of the contract in both time and scale.

3b. Cost savings:

Cost savings result from a more efficient and effective utilization of the crew leaders' time. Providing a resource for the crew leads will ensure that they are not bogged down by the permitting process and materials or regulatory research.

4a. Outcomes:

As a resource, the Engineering Technician will provide consistent, reliable information and assistance to the Crew Leaders resulting in maintenance and repair jobs that are completed more efficiently while maintaining high standards for safety and quality. Additional outcomes include our crews becoming more efficient with drainage projects and an increased ability to take on the steadily increasing demand for water quality and fish habitat improvement projects. Ideally, we will be able to respond quicker to citizen requests that involve challenging drainage issues.

4b. Measures:

Success will be measured by reductions in incidents, increased number of drainage projects completed and discussions with crew leaders about whether they were able to refocus on their crews. We will look into whether these outcomes have occurred within one year of the new position starting.

5a. Other Departments/Agencies:

Improved communication between the various engineering groups and M&O.

Ideally Human Resources would have less work from us as our greater focus on safety would hopefully reduce accidents and injuries.

5b. Name the person in charge of implementation and what they are responsible for:

Public Works Maintenance and Operations Superintendent, Andy Bowler

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3341 Fund 108 Cost Center 108100 Originator: Gina Miller

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Rubber Tired Roller Upgrade

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.501	Operating Transfer Out	\$90,000
	Request Total		\$90,000

1a. Description of request:

Equipment #436, a 48" steel drum roller is budgeted and scheduled for capital replacement in 2021. This type of equipment no longer meets the business needs of M&O. The request is to surplus the steel drum roller and replace it with a rubber tired roller.

1b. Primary customers:

All Road Users

2. Problem to be solved:

The county owns a 48" steel drum roller. This roller has been used only 38 hours in the last 3 years. The county needs to rent a rubber tired roller each summer at a cost of approximately \$16,000.00. The rubber tired roller rental market is small and one is not always available during the peak season we need it. Surplus a roller that is no longer needed and replacing it with a roller that is required and hard to rent would benefit the road maintenance programs as well as reducing equipment that isn't used.

3a. Options / Advantages:

We could continue to look for a rental roller each summer and pay a vendor for this. Owning one ensures the maintenance program has the equipment required, available when it is needed. Additionally, the service life of the new roller would be long enough that the county would realize a savings over continually renting.

3b. Cost savings:

Cost to rent for 3 years, \$49,000. Cost to purchase is approximately \$89,000. The replacement life for this equipment is approximately 15 years. 15 year rental cost assuming NO inflation, \$244,999. Additional maintenance costs are also incurred with a rental. One time purchase cost is \$89,000. Savings would be approximately \$155,999 over 15 years.

4a. Outcomes:

An unused roller will no longer need to be maintained. A needed roller will be available when projects need it. This will happen as soon as the old equipment is auctioned and the new equipment is put into service.

4b. Measures:

Rental costs will not be incurred for a roller. Maintenance costs will not be incurred for a roller that sits unused. The road maintenance projects will have the roller needed to produce good quality in a timely manner.

5a. Other Departments/Agencies:

Yes, Equipment Services. They will facilitate the purchase and maintenance of the equipment.

5b. Name the person in charge of implementation and what they are responsible for:

Eric Scheduler, Equipment Services Manager.

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3341

Fund 108

Cost Center 108100

Originator: Gina Miller

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3342

Fund 108

Cost Center 108106

Originator: Gina Miller

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Carry Over Remove and Replace CRS Road Oil Tanks

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6190.534430	Direct Billing Rate	\$16,900
	7410.594430	Equipment-Capital Outlay	\$250,500
	Request Total		\$267,400

1a. Description of request:

ASR 2021-6281 approved \$236,500 for this project, which is under way, for the removal of four horizontal road oil storage tanks and replacement with one upright (vertical) storage tank that provides proper storage, heating and agitation of road oil used in our chip seal program. This also includes the removal and replacement of the concrete pad. The project has been started but delayed due to staffing shortages and vendor availability.

The overall cost of this project is expected to be \$278,400 with \$11,000 spent in 2021. In late 2021 new pricing was obtained for the tanks accounting for the 18% project increase.

1b. Primary customers:

All road users.

2. Problem to be solved:

The initial approval was based on this problem; The four existing oil tanks are horizontally mounted and approximately 30 years old. They are dilapidated and repair parts are not readily available. There are no agitators or radiator style heaters in them. Because of the horizontal mounts, the stability of the road oil is compromised due to the large surface area exposed to air. These types of tanks drain very slowly and increase load / unload time.

Due to staffing shortages and general contractor delays during the pandemic, the project has been unable to move at the originally anticipated pace. Two of the tanks have been removed and a contract for structural engineering is in the process of being executed.

3a. Options / Advantages:

Continuing the project into 2022 is the only option to complete the proposal.

3b. Cost savings:

None.

4a. Outcomes:

The project will be completed and road oil can be stored for longer periods of time. Chip seal programs will have greater flexibility.

4b. Measures:

The new tank will be installed and the old tanks will have been removed.

5a. Other Departments/Agencies:

Equipment services will assist with future maintenance of the tanks.

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3342

Fund 108

Cost Center 108106

Originator: Gina Miller

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3369

Fund 108

Cost Center 108100

Originator: Gina Miller

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: Engineering Tech FTE work station

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6510	Tools & Equip	\$5,000
	7070	Minor Remodeling	\$20,000
	Request Total		\$25,000

1a. Description of request:

The proposed addition of one FTE Engineering Tech to M&O, (Suppl ID# 3338) will require a minor remodel to add workspace, a new laptop, two monitors, a desk, county cell phone and a desk phone with extension.

1b. Primary customers:

All Road Users

2. Problem to be solved:

Adding a new FTE requires workspace for them to perform their daily tasks at as well as the proper office equipment.

3a. Options / Advantages:

One option would be to require this employee to share a workstation with another FTE. This would cause scheduling challenges and reduce the availability of the workstation for both FTE's sharing space. Providing the employee with a dedicated workspace is the best option because it allows them to be productive in a consistent environment with available workspace.

3b. Cost savings:

N/A

4a. Outcomes:

The engineering tech will have a space to perform the daily tasks assigned to them, they will have a phone to be reached at and a dedicated workstation available. The work can be performed at the demand of the employee needing the workstation.

4b. Measures:

The outcome will happen when the workstation is installed and the FTE has been hired.

5a. Other Departments/Agencies:

Facilities- They will participate in the remodel. IT- They will set up the computer station.

5b. Name the person in charge of implementation and what they are responsible for:

IT- Perry Rice
Facilities- Rob Ney

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3370

Fund 108

Cost Center 108100

Originator: Gina Miller

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Safety Training Office Equipment

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6510	Tools & Equip	\$5,000
	Request Total		\$5,000

1a. Description of request:

Create a workstation for the Safety and Training FTE. This FTE will need a desk, laptop, monitors, desk phone with extension and county cell phone.

1b. Primary customers:

All road users

2. Problem to be solved:

M&O is hiring an Industrial Safety and Training FTE and the workspace is not yet established. This individual will need a space to write reports, do research and complete other daily tasks. Whatcom County needs to address this as an integral component of the safety program. Maintenance and Operations has some of the highest risk and exposure and the FTE's work space will allow them to move important safety measures forward.

3a. Options / Advantages:

This employee could share a workstation with another FTE. This would result in reduced availability for both FTE's. Establishing a dedicated work station is the best option because it allows for maximum productivity for the FTE's affected.

3b. Cost savings:

N/A

4a. Outcomes:

The Safety FTE will have a workstation to perform their daily tasks at.

4b. Measures:

The outcome will be evident when the workstation is set up.

5a. Other Departments/Agencies:

IT- Will be needed to set up the computer and monitors.

5b. Name the person in charge of implementation and what they are responsible for:

IT- Perry Rice

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3414

Fund 108

Cost Center 108100

Originator: Michael Koenen

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Funding Abel Pit salt and sand storage SBR-3359

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351	Operating Transfer Out	\$45,000
	Request Total		\$45,000

1a. Description of request:

This request funds Supplemental Budget Request 3359 which will provide additional salt and sand storage capacity out at Abel pit.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Maintenance & Operations

Suppl ID # 3500

Fund 108

Cost Center 108100

Originator: Randy

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Swift Creek Transfer Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.128	Operating Transfer Out	\$7,998
	Request Total		\$7,998

1a. Description of request:

Whatcom County is required by a binding consent decree to make \$300k (\$150k Road Fund and \$150K Flood Fund) annual transfers into the Swift Creek Sediment Management Fund for the continued efforts to deal with Swift Creeks sediment. The amount is scheduled to increase annually based on changes to CPI. At the time of the 2021-2022 budgeting it was not anticipated to increase as much as it did. This request brings the budget in line with the 2022 transfers out from the Road Fund.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3447

Fund 114

Cost Center 114

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Veteran Services Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$80,000
	8351	Operating Transfer Out	\$11,352
	Request Total		\$91,352

1a. Description of request:

The Health Department is requesting additional expenditure authority to increase contracted housing case management services specifically for veterans in Whatcom County.

1b. Primary customers:

Whatcom County veterans experiencing homelessness in need of assistance to locate and secure housing. This service will also support veterans in housing who need assistance maintaining housing.

2. Problem to be solved:

The 2021 Point in Time Count reflected 37 veterans who were experiencing homelessness in Whatcom County. There are currently 55 veterans using HUD/VASH vouchers in Whatcom County to provide affordable housing for veterans who were chronically homeless. The VA Case Managers assigned to those housed veterans are not often able to provide the housing case management, and focus more on clinical support of those veterans. Between those seeking housing and those working to maintain housing, additional case management support is needed to get veterans into housing and maintain it.

3a. Options / Advantages:

Currently housing staff working in our permanent supportive housing buildings such as Francis Place and 22 North have been offering support when available to veteran tenants, but due to increased complex needs of many of the residents in the building, the support they are able to offer has been limited. This would create a Case Manager position specifically for those veteran clients who need support to maintain their housing.

3b. Cost savings:

There are an additional 3-5 HUD/VASH vouchers expected to arrive in the community, on top of the 55 already in place. This contracted service would help to get eligible veterans into housing quickly, as well as supporting some of the veterans currently in housing to prevent them from becoming homeless again. This would mean less need of these veterans to access emergency and homeless services and reducing the cost to the community.

4a. Outcomes:

Whatcom County will have the much needed additional support for veterans experiencing homelessness to access and maintain housing. This position will support at least a minimum of 25 veterans over the course of the year and help to reduce the homeless count for veterans in the coming year.

4b. Measures:

The Veteran Housing Case Manager will be hired in 2022 and will keep records of eligible veterans served in the HMIS database. This information will be reported during the same reporting periods as housing case managers not working with veterans.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3447

Fund 114

Cost Center 114

Originator: Ann Beck

5a. Other Departments/Agencies:

This additional veteran resource will impact Catholic Community Services, Opportunity Council and the VASH Case Managers working with both of the PSH programs they operate. This will provide more resources for the housing system, which is already overburdened.

5b. Name the person in charge of implementation and what they are responsible for:

This case manager will be employed by one of the PSH providers, Opportunity Council or CCS.

6. Funding Source:

Fund 114: Veterans Relief Fund. The anticipated Veterans' Fund Balance at the end of 2021 is \$877,000.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3323

Fund 118

Cost Center 118180

Originator: Barry Lovell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Replacement of Large Prisoner Transport Truck

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested	
	8301	Operating Transfer In	\$0	(\$95,101)
	8351	Operating Transfer Out		\$265,267
	Request Total		\$265,267	\$170,166

Note: Fund from Jail Sales Tax Fund, no ARPA transfer

1a. Description of request:

This supplemental request is for the additional funding needed to purchase, license and make ready a replacement Large Prisoner Transport Truck. \$184,733 exists in ER&R. We are seeking approval to get funds to handle the increased cost of a replacement vehicle as well as the increase funding required to mitigate the spread of novel corona virus, commonly known as COVID-19.

The new large Prisoner Transport Truck will be comprised of a long-haul truck cab and chassis with a custom made module attached that holds the offenders. The custom module is designed for the transportation of offenders between our jail partners. Additionally, the custom module be built with additional individual cells to maintain social distancing. I will also have the air handling capability to clean and maintain the air through the use of HEPA filters and UV light sanitation ensuring the safe transport of the offenders.

Breakdown of costs associated with equipment, materials, and construction methods used to reduce the likelihood of the transmission of the Novel Coronavirus (COVID 19) in a TriVan prisoner transport vehicle:

1)construction of (7) segregation cells for the isolation of up to (14) inmates: \$36,750

2)use of polycarbonate shields at outside of segregation cells (outside of perforated aluminum security doors) to allow visibility, but prevent coughing / spitting / urinating directly outside of segregation cells: \$4,119

3)Use of polyurea (aka: bedliner - a tough material that will not absorb moisture or host airborne pathogens) on ALL interior surfaces in transport module (including floor, walls, ceiling, doors, benches, etc) for easy decontamination and cleanout: \$19,521

4)Climate Control System configured so individual segregation cells have individual air exhausts to the atmosphere (to create negative air pressure in segregation cells, and avoiding recirculation of possible airborne pathogens): \$4,599

5)Climate Control System includes the following specific features to minimize the airborne transmission of the Coronavirus: \$30,112

-Climate Controlled Air delivered to individual segregation cells and general population areas by ductwork

-HEPA Filtration to minimize the opportunity for airborne transmission

UV Light Scrubbing for Climate Controlled Air

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3323

Fund 118

Cost Center 118180

Originator: Barry Lovell

The above amounts total \$95,101

1b. Primary customers:

Offenders who have been arrested and need to be transported either to Whatcom County, or from Whatcom County to the county/city where a warrant was issued.

2. Problem to be solved:

The Whatcom County Sheriff's Office, Corrections Bureau transports thousands of inmates annually on the Northwest Cooperative shuttle. We anchor the Northern end of the shuttle, and are reimbursed by Skagit, Island, San Juan Counties and Marysville for transporting their offenders. These contracts help defray the cost of moving offenders arrested in 1 jurisdiction and wanted in another.

The advent of Covid-19 has made it a much greater challenge to safely move offenders from place to place. In order to follow COVID precaution protocols, we need the ability to separate offenders from each other, and be able to control air flow. Evaluating the current transport vehicle, it quickly became apparent that it did not have the capability to provide for even the most basic precautions. In researching solutions, it became apparent that additional compartments were needed in the transport vehicle, a more modern HVAC system was required to filter and sanitize the air as well as directly vent the used air to the outside of the vehicle. and the materials used to create the interior surfaces should be able to be decontaminated and sanitized on at least a daily basis.

The current vehicle has nearly 400,000 miles and is 14 years old. Retrofitting the transport unit would not be cost effective due to the extensive changes to the interior that would need to take place. In addition, the truck unit has had increasingly frequent mechanical failures including engine failures and transmission issues that have left the Transport Deputies and dangerous offenders repeatedly stranded up and down the I-5 corridor. Because of these mechanical failures we have mandated that any deputy leaving the county must have an additional officer for increased safety and security. This necessary safety measure has led to an increase in staffing costs.

3a. Options / Advantages:

A new vehicle is the best choice; further, we have determined that a local company has the skills, materials and excellent reputation in the building of similar vehicles to allow the project to be done within Whatcom County.

The other option is to not purchase the new vehicle. This creates an issue for the jail, as the vehicle we are currently operate is not reliable and is unsafe for both staff and inmates in transit. The current recommendation from the county shop is to NOT operate the vehicle outside of the county because it is unreliable. Not having a Large Prisoner Transport Vehicle limits our ability to maintain our contracts within the Northwest Cooperative Transport system, which in turn limits our ability to bill out for our services to help off-set the transport costs. Additionally, there are times when we must operate the current vehicle because we need to use the safety cells that do exist within the vehicle. Having a vehicle that is not reliable, increases our exposure liability.

3b. Cost savings:

There are no specific cost savings; however the avoidance of liability is an important consideration. The County assumes a greater level of liability if it is using a questionable vehicle to move offenders.

4a. Outcomes:

A realizable and safe vehicle will be available to transfer offenders from one location to another. It will meet the current COVID standards and will be useful in the future to limit exposure to all type of airborne communicable disease. We anticipate that the vehicle can be completed within the 1st 6 months of 2022.

4b. Measures:

When we are notified by the County Shop that the vehicle is ready for use. Success will be measured by the number of times the vehicle is used to transport large numbers of offenders without any mechanical issues.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3323

Fund 118

Cost Center 118180

Originator: Barry Lovell

5a. Other Departments/Agencies:

Yes, this request impacts Public Works, Equipment Services. They will be responsible for the actual purchase of the vehicle and responsible for overseeing compliance with the bid specifications, as well as some additional "make ready" work that will need to be done after the vehicle is turned over to the Corrections.

5b. Name the person in charge of implementation and what they are responsible for:

We have been working with Eric Schlehuber, the Equipment Services Manager, on this project. He has worked with us in developing cost estimations and specifications. The vehicle will be included in the County fleet, and fall under the control of ER & R. Eric will be bringing the bid award request to the County Administration in concert with this supplemental request.

6. Funding Source:

Funding for this request will come out of a combination of the Corrections ER & R fund, the jail sales tax fund and, due to the need for the continued precautions to control the COVID-19 pandemic, funding from the American Rescue Freedom Act.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3353

Fund 118

Cost Center 118160

Originator: Wendy Jones

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Nursing Services

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6635.003	Visiting Nurse Personal	\$88,000
	Request Total		\$88,000

1a. Description of request:

This supplemental will increase the contract amount paid to Northwest Regional Council (NWRC) for the provision of nursing services for the Whatcom County Corrections Bureau. NWRC has held the nursing contract since the latter part of 2013. This request is in addition to the increase granted as part of the 2021/22 budget process. This increase will bring the total cost for the jail's portion of the Nursing care to \$1,502,974 for a total of 24,500 hours of service. This will bring the per hour costs up 4.9% to \$61.35. The increase in hours should allow for the increased work related to both the MOUD program and COVID.

1b. Primary customers:

Offenders at the Whatcom County Jail and Work Center

2. Problem to be solved:

This request is being put forward due to the following 4 factors:

- 1) An existing CBA between NWRC and the Nurses bargaining unit.
- 2) On-going Nursing shortage.
- 3) The significant increase in the offender participation in the MOUD (Medications for Opioid Use Disorder)
- 4) The continued effects of the COVID-19 pandemic on offender populations.

The NWRC has an existing CBA with the Nursing bargaining unit that includes an approximately 5% wage/benefits increase per year. When costs of this program were originally estimated, the annual increase estimate was based on the County's base of 2-3%. Since the base rate is higher than originally used, additional funds are needed to provide this service.

It is anticipated that the demand for Nurses will continue to grow over at least the next 5-7 years as existing Nurses retire and/or exit the workforce and the need for skilled nursing care continues to escalate. This need is even more acute in Correctional Health Care, as the challenges of working in a jail can be an impediment to attracting qualified Nurses. As a result, wages tend to be higher than in other public or private practices in order to attract the type of Nurses that can handle the clientele and the environment.

The Jail's MOUD has grown significantly over the last 2 years. The average number of offenders on some type of medication assisted Opioid treatment has increase 72% between 2019 and 2021. A significant driver to this increase is the number of offenders asking to participate in the program and who reported the use of the combination of Opioid, Methamphetamine and Fentanyl from 7 offenders in 2019 to 46 this year- this is an increase of 557%. The more offenders who are being screened and accepted for the program translates to increase workload for the Nursing staff.

Lastly, the COVID-19 pandemic. Nurses are the primary front line to preventing COVID from invading the Corrections facilities and from there, to the community. We have had 1 limited outbreak at the Work

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Status: Pending

Jail

Suppl ID # 3353

Fund 118

Cost Center 118160

Originator: Wendy Jones

Center early in 2021, where 48 offenders were ultimately diagnosed with COVID. No one had to go to hospital and the cases that were seen and treated presented with mild symptoms. We do see offender coming into the facility with positive rapid tests: the medical protocols developed in collaboration between Custody and Nursing, have limited any additional exposure. Nursing staff have also become state certified to provide a vaccination program within the facilities for any offender who wishes to be vaccinated. This started with providing COVID-19 vaccination and has now spread so that offenders can be vaccinated for a number of common viruses. This reinforces the health of many underserved members of our community and, in the long run, benefits all of our citizens. There have been approximately 1100 hours of nursing services focused on the assessment, testing, direct medical care, patient follow up and vaccination administration for COVID-19.

3a. Options / Advantages:

The Nursing RFP was put out for bid in 2019 and NWRC was awarded the contract as the most responsive bidder. We have a legal requirement under both Washington State law and Federal standards which require us to provide medically necessary care for individual with serious medical needs; further, that level of care is required to meet the standard of our community. Failure to do so can and frequently does result in very expensive lawsuits. An educated and dedicated Nursing staff forestall many of the issues that wind Jails up in Court.

3b. Cost savings:

There are no specific hard cost savings, however, we are proposing a financing plan that will have very little net impact on the Jail's budget. Please see "Funding Source".

4a. Outcomes:

There will be sufficient funds available to enter into a Nursing contract for 2022.

4b. Measures:

Thorough review of the budget status each month, comparing current spending levels against the budget, Regular meetings with the NWRC Nursing Supervisor and Program Manager.

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The funds will come from the Jail Sales Tax Fund. We are proposing to leave a clerical support position assigned to the Work Center open for 2022. This will allow us to off-set \$85,253 of the \$88,000 increase. The remainder can be reallocated from within the Jail's approved budget, An alternative funding source may be the American Rescue Plan Act, as approximately 1100 hours have been used in 2021 for COVID response and/or prevention. We anticipate that this workload will continue through 2022.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3355

Fund 118

Cost Center 118164

Originator: Wendy Jones

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: MOUD medication increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6320.001	Office & Op Supplies	\$25,000
	8301	Operating Transfer In	(\$10,000)
	Request Total		\$15,000

1a. Description of request:

This supplemental seeks additional funding for the purchase of Opioid Substitution medications as part of the Whatcom County Jail MOUD (Medications for Opioid Use Disorder) program. This program, started as the result of a settlement agreement with the ACLU (American Civil Liberties Union) has continued to grow and additional funds are needed to purchase the medication use in the program.

1b. Primary customers:

Offenders with OUD (Opioid Use Disorder)

2. Problem to be solved:

There are insufficient funds in the Jail's 2022 budget for these medications. We are under a legal obligation, agreed to by Whatcom County, to provide this service.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Jail Fund fund balance and CJTA funding from Health

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3361	Fund 118	Cost Center	Originator: M Caldwell
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: 2022 wage and benefit adjustments-Corrections

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$459,671
	6210	Retirement	(\$87,589)
	6230	Social Security	\$35,425
	6245	Medical Insurance	\$101,698
	6255	Other H&W Benefits	\$43,316
	6259	Worker's Comp-Interfund	\$17,991
	6269	Unemployment-Interfund	\$1,249
	Request Total		\$571,761

1a. Description of request:

Record COLA increases, reduction in PERS & PSERS retirement rates, changes in other benefit rates and reinstatement of 5 corrections deputies positions.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Jail Fund

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3364

Fund 118

Cost Center 118160

Originator: Wendy Jones

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Medical Social Worker

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested	
	6630	Professional Services	\$125,000	
	8301.124	Operating Transfer In	(\$62,500)	\$0
	Request Total		\$62,500	\$125,000

Note: Added 50% funding from Behavioral Health Fund- (\$62,500)

1a. Description of request:

This supplemental request is to create a social worker position to work with medically complex offenders in order to coordinate community release plans. The position would be integrated into the Jail Health Program, and would provide critical assistance in coordinating aspects of the criminal justice process with the varied needs of complex offenders. It is anticipated this would be a contract position vs. and FTE.

1b. Primary customers:

Offenders in full custody who have complex medical, emotional, mental health, substance abuse, cognitive and psycho-social issues that require specialized assistance and coordination.

2. Problem to be solved:

The need for this type of position in the jail has increased over the last 18-24 months. We are experiencing significant increases in bookings involving individuals who have a combination of issues, including a variety of health conditions, and issues with substance abuse, mental health and cognitive impairment. We are finding not only the number of people are increasing, the acuity of their illnesses are also. In many of these cases, the core reason someone winds up in jail is due to behavior triggered by their underlying conditions. Law enforcement has to respond to the behavior, which is often to the point that no other facility would accept the individual, and are left with no other choice but to book them into jail. It is only after the individuals are in a controlled environment, with staff who are trained observers, that we are able to identify that there is something going on with the person in addition to breaking the law. We find these individuals are very poor historians and don't remember or are in denial about previous diagnosis or treatments.

The position we are proposing would be someone who is familiar with resources in the community (Social Security Administration, Medicaid rolls, Veterans affairs, community providers such as SeaMar, Unity Care, Compass Health, etc.) and how to access information from those resources and the resources themselves. They can assist medical in determining the existence of underlying medical conditions that can be triggering behavior that appears to be related to mental illness-, determine if the person has support in the community, work to find alternative placement in a treatment/residential facility, bring information to the Defense Attorney and Prosecutor concerning factors that may mitigate the need for someone to remain in custody, etc. In 2 recent cases, offenders who had been booked on property crimes and were, based on their behaviors, presumed to have a serious mental illness, were determine to have cognitive impairments due to brain damage; in one case due to the aftereffects of a significant stroke and in the other, signs of early dementia. Medical reached out to senior custody staff, who interceded to contact the involved attorney's and reach out to some community resources. The end result was that both of the individuals were released. Having a social worker as an in-house resource will give us a consistent and centralized way to perform tasks such as back-tracking an individual's history with various social service and medical agencies, determine if someone may be eligible for assistance via agencies such as

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Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3364

Fund 118

Cost Center 118160

Originator: Wendy Jones

the Veterans Administration, be able to provide information to the criminal justice system about alternatives that are available other than holding someone in custody, coordinate with community case managers, etc.

3a. Options / Advantages:

- 1) Leave things as they are: staff does an excellent job, but given short staffing and the added demands created by COVID protocols, they don't have the time, and in most cases, the expertise needed to work their way through multiple bureaucratic agencies to perform these functions.
- 2) Hire a social worker as a County FTE. We have had excellent results in contracting with community providers for personnel who are specialists in the medical and social service fields. While we carry expertise in supervising and managing Corrections staff, we do not have the subject matter expertise to serve this function for this position.
- 3) Depend on the existing pre-arrest diversion program to divert these individuals from custody: Over the past 18-24 months we have seen this classification of offenders rise in numbers and acuity, not fall, despite the growth of GRACE, LEAD, District Court EHM and the opening of the Stabilization Center. The core issue is that the individuals are presenting with behaviors that make them ineligible for these options leaving law enforcement with few options in order to either keep the individual safe or the community protected. The Social Worker position would provide for more robust post arrest diversion options.

3b. Cost savings:

Early recognition and intercession with offenders fitting within this classification will reduce their length of stay. Every day they are not in jail saves Whatcom County and/or one of our Municipal or Tribal partners \$193.00. If the individual is able to be maintained in the community, the probability of their coming back into custody is significantly reduced. We have seen local results supporting this premise with the GRACE program.

4a. Outcomes:

Contract with a local provider such as NWRC, SeaMar, Unity Care, etc. for the position of a Jail Social Worker. If we are able to work with one of our current providers to expand their contract to include a Social Worker, we anticipate we will have the social worker on-site by the end of 1st quarter 2022. If we have to go out to RFP, it may be the second quarter of 2022.

4b. Measures:

- * Tracking the process of hiring and orienting the individual selected for the position.
- * Monthly statistics will be submitted on agreed upon data points in order to measure items such as the number of contact, community placements, length of stay for participants, etc. The original data points may modified if better measures are determined to exist.
- *The Social Worker will be part of the Jail Health Program and as work closely with Jail Medical and Behavioral Health staff and participate in the quarterly medical meetings

5a. Other Departments/Agencies:

The only impact will be with those departments directly involved with the County contract process. There will be a positive impact on the Prosecutor and Public Defender's offices as the work done by the Social Worker will contribute to final resolution of a category of criminal cases in a more timely manner.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The funding will come from the Jail Sales tax. It appears that we may be able to use some grant funds coming available on a Federal and State level, and this position would also appear to fit within the parameters of Behavioral Health Sales Tax.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3381

Fund 118

Cost Center 118195

Originator: Wendy Jones

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Training

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6140	Overtime	\$30,000
	6210	Retirement	\$3,871
	6230	Social Security	\$2,459
	6255	Other H&W Benefits	\$44
	6259	Worker's Comp-Interfund	\$535
	6269	Unemployment-Interfund	\$118
	7110	Registration/Tuition	\$13,000
	Request Total		\$50,027

1a. Description of request:

This supplemental budget request is to provide additional funds for training for the Corrections Bureau. These funds will cover the increase in the per person cost for the Corrections Officer Academy (\$1,577 per person) and overtime costs and benefits to cover staff time for essential training that has been delayed due to COVID-19.

1b. Primary customers:

Corrections Deputies with the Whatcom County Sheriff's Office

2. Problem to be solved:

Over the past 2 years, a great deal of training has been canceled and/or postponed due to a combination of the effects of the COVID-19 pandemic. We have experienced 2 outbreaks: ; the first in January of 2021 involving offenders and a second in August of 2021 involving staff. In both cases, training had to be canceled because the staff were needed to cover shifts. In addition, some types of training were canceled in order to meet COVID precaution protocols. This has included essential trainings such as the following:

- First aid/CPR
- Firearms
- Defensive Tactics
- Suicide Prevention
- De-escalation training.

In addition to our In-service training, The Washington State Legislature increased the basic Corrections Academy (COA) from 4 weeks to 10 weeks effective July 1, 2021. This was done as part of the overall review and modification of statutes as they applied to Peace Officers and Corrections Officers. As a result, we are covering 6 additional weeks of salary and benefits at the academy, travel expenses, plus increases in the cost of the academy itself.

Failing to have the Corrections Deputies complete essential training places us in violation of Washington State law, requirements of the National Commission on Correctional Health Care (NCCHC), and significantly increases our liability exposure.

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Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3381

Fund 118

Cost Center 118195

Originator: Wendy Jones

3a. Options / Advantages:

The COVID-19 pandemic was instrumental in the creation of this situation and was beyond our control. The training needs to be completed and documented.

3b. Cost savings:

There are no quantifiable savings, however since this issue was created by COVID, it seems reasonable that COVID mitigation funds would be available to cover the increases for 2022.

4a. Outcomes:

All Staff are trained in all essential training and that information is formally recorded in their training records.

4b. Measures:

Review of training records on a quarterly basis

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

The Jail Sales Tax Fund. We would suggest that a majority of this expenditure should be covered by COVID mitigation funds, since it is the reason for the training cancelation, and consideration be given to covering the balance of the cost with the funds provided to the County to mitigate the effect of the 2021 legislative changes, as that has impacted the length of the academy, resulting in staff coverage costs.

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3407

Fund 118

Cost Center 118163

Originator: Wendy Jones

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Extension of COVID testing funds into 2022

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6635	Health Care Services	\$298,000
	8301	Operating Transfer In	(\$298,000)
	Request Total		\$0

1a. Description of request:

This supplemental budget request will extend supplemental 3220 into 2022. Council approved up to \$435,000 in funds to cover testing for COVID-19 in either of the 2 Corrections Facilities. As of the end of August, we have expended \$131,645. We are seeking to extend the spending authority for any balance that remains at the end of 2021 through 2022., as we are anticipating the need to continue testing through the next year. We estimate the maximum amount of the carry over balance to be \$298,000. The original funding came from the American Rescue Plan Act, which allows the fund to be carried over into 2022.

1b. Primary customers:

Offenders at either of the 2 Correction Facilities.

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

Jail

Suppl ID # 3408

Fund 118

Cost Center 118100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Adjust 2022 Sales Tax Revenue

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.7200	Juvenile Criminal Justic	(\$1,200,000)
	Request Total		(\$1,200,000)

1a. Description of request:

Adjust 2022 countywide jail sales tax by 2021 projected plus approximately 5% growth; 2022 budget was conservatively low due to unknown pandemic economic impacts.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Jail sales tax

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3393

Fund 122

Cost Center 122600

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Commerce HEN Grant Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4334.0427	Homeless Grant Asst Program	(\$1,386,142)
	6610	Contractual Services	\$1,386,142
	Request Total		\$0

1a. Description of request:

The Health Department is requesting expenditure authority to utilize additional funding available from Washington State Department of Commerce to support housing and homeless programs. This supplemental increases the revenue and expense for this pass through grant. It includes an increase of in Housing and Essential Needs (HEN) funding during 2022.

1b. Primary customers:

Those qualifying for the Housing and Essential Needs Program (HEN), which requires applicants be unable to work for at least 90 days due to a disability, and have zero income or receive Aged, Blind and Disabled cash benefits.

2. Problem to be solved:

Households who are eligible for this assistance do not have sufficient income to access or retain housing independently, and may need resources for essential needs.

3a. Options / Advantages:

Housing and essential needs such as hygiene and sanitation products are critical to supporting people whose income is not sufficient to access housing without assistance.

3b. Cost savings:

HEN provides state funding to counties to serve those at-risk of or experiencing homelessness, thereby saving local costs being used to meet the basic needs of eligible households.

4a. Outcomes:

It is expected that between 7/1/2021 – 6/30/2022, 350 HEN-eligible households will receive essential needs items and cleaning and move-in supplies; and 230 households will receive HEN rent and utility assistance. The increased funding will allow for an increase in the number of households who receive rent and utility assistance and will support additional housing support staff time needed to remove housing barriers.

4b. Measures:

- Number of HEN eligible households served each month and year to date
- Average amount of subsidy per HEN household
- Number of HEN eligible households defined
- System performance measures as set by the WA State Department of Commerce

5a. Other Departments/Agencies:

Opportunity Council administers HEN funding and the Department of Social and Health Services determines eligibility.

5b. Name the person in charge of implementation and what they are responsible for:

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Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3393

Fund 122

Cost Center 122600

Originator: Ann Beck

Barbara Johnson-Vinna, Housing Program Specialist in the Health Department

6. Funding Source:

Washington State Department of Commerce, Housing and Essential Needs grant.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3395

Fund 122

Cost Center 122900

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: DOC Shelter Program Grant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4334.0421	Commerce Grant	(\$342,977)
	6610	Contractual Services	\$342,977
	Request Total		\$0

1a. Description of request:

The Health Department requests expenditure authority of new funding from the Washington State Department of Commerce in to develop/expand shelter capacity in our community. The goal of the funded services is to bring individuals inside and transition participants to permanent housing quickly. The grant total of \$1,194,211 provides funding from 2021 through June 30, 2023 and it is expected that \$964,000 will be utilized in 2021 and \$342,977 in 2022.

1b. Primary customers:

Whatcom County individuals and families experiencing homelessness.

2. Problem to be solved:

On January 28, 2021, 859 people in Whatcom County were counted as experiencing homelessness during the annual Point in Time (PIT) Count. These are the highest numbers recorded since the annual counts began in 2008. In addition to those counted, hundreds more are known to be at risk of losing their homes and becoming homeless in Whatcom County. In 2019, there were 432 emergency shelter beds available in Whatcom County, and while additional beds were made available in 2020, the number of safe emergency shelter beds does not meet the need in the community. To add to this challenge, increased bed capacity in existing shelter continues to be challenging as congregate living situations are not recommended during the COVID-19 pandemic.

3a. Options / Advantages:

These additional funds will support an expansion of shelter options which will promote individual as well as public health and welfare interests. Providing safe nightly shelter with the opportunity for regular social service supports can help those experiencing homelessness gain stability and begin to access more permanent housing options.

3b. Cost savings:

These funds are supported by state dollars and will not impact local funds. Cost savings will occur as people are stabilized in housing, and the negative impacts to public health and welfare are mitigated.

4a. Outcomes:

Increased shelter opportunities to provide for safety, security and wellness for those experiencing homelessness.

4b. Measures:

Increase in number of additional shelter beds and services in the community to provide support to those experiencing homelessness.

5a. Other Departments/Agencies:

The Health Department will work closely with Whatcom Homeless Service Center's Coordinated Entry

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Rpt: Rpt Suppl Regular

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Status: Pending

Health

Human Services

Suppl ID # 3395

Fund 122

Cost Center 122900

Originator: Ann Beck

Partners as well as other shelter providers willing to enter information into the Homeless Management Information System (HMIS). The Health Department will work with subgrantees to ensure grant requirements are met, and to support their efforts in reducing homelessness. The Health Department will also work with the City of Bellingham, the small cities and the Whatcom County Housing Advisory Committee to ensure coordination of resources and effective communication.

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Washington State Department of Commerce is dispersing these funds which are a part of the state appropriations of the Home Security Fund.

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3415

Fund 122

Cost Center 122200

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Homeless Hsg

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6190	Direct Billing Rate	\$4,370
	Request Total		\$4,370

1a. Description of request:

Adjustment of the direct billing account as a result of 2022 wage & benefit adjustments.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Homeless Housing Fund

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3438

Fund 122

Cost Center 122200

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Housing Services Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$373,000
	6720	Telephone	\$2,000
	8351	Operating Transfer Out	\$53,213
	Request Total		\$428,213

1a. Description of request:

The Health Department is requesting an increase in spending authority in order to increase housing contracted services with community providers.

1b. Primary customers:

Whatcom County residents who are homeless or at risk of being homeless, who require housing support and assistance. Households who have very low income and need stable, permanent housing.

2. Problem to be solved:

Housing availability in the county is limited, and housing costs are rising, challenging many households to find or retain their current housing. Households who are experiencing homelessness, especially families with children, are increasing. Households with very low income are unable to find, much less afford, suitable housing. Without stable housing, employment opportunities, health and well-being are compromised.

3a. Options / Advantages:

The housing program of the Health Department has created a strategic plan that implements solutions along a continuum. Current document recording fees fund these various programs. Increased revenue from this source should be invested in these solutions in order to ensure housing opportunities to additional households.

3b. Cost savings:

Document recording fees are a dedicated source of revenue for programs and services to people in need of housing assistance. Providing supportive services and stable housing not only improves the health and well-being of the community members, but also reduces the cost burden on the county as stable health results in increased employability, positive family life, and improved social relationships.

4a. Outcomes:

Expected outcomes include an increase in the number of households receiving housing assistance.

4b. Measures:

The housing program of the Health Department administers numerous contracts with various housing providers in the community. Each contract has performance measure that are expected to be achieved and reported on a regular basis. Success will be measured by reviewing whether the performance measures have been met.

5a. Other Departments/Agencies:

Services will be delivered by various community partners.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3438

Fund 122

Cost Center 122200

Originator: Ann Beck

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Document Recording Fees from the Homeless Housing fund. The fund balance at the end of 2021 is budgeted to be \$1.5M.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3440

Fund 122

Cost Center 122800

Originator: Ann Beck

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Emergency Solutions Grant-COVID

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4333.1423	Emergency Solutions	(\$1,270,000)
	6610	Contractual Services	\$1,270,000
	Request Total		\$0

1a. Description of request:

We are requesting expenditure authority of additional federal funding (Emergency Solutions Grant – COVID) passed through by the Washington State Department of Commerce from the U.S. Department of Housing and Urban Development (HUD). This funding will be used to prevent, mitigate, and reduce the transmission of COVID-19 in Whatcom County for those experiencing or at high risk of homelessness.

This will be accomplished through the following activities for those experiencing or at high risk of homelessness: 1) expand capacity of emergency motel stays for families with children, youth and young adults, and highly vulnerable singles; 2) add rental assistance resources; 3) add personnel support including case management for achieving housing stability and retention; 4) support additional Homeless Management Information Systems data management costs related to this grant; 5) provide other financial assistance related to housing such as security deposits, utility costs, and application fees. 6) Purchase of furniture, supplies and staffing needed to increase beds for senior women at the YWCA. 7) Provide additional staffing and supplies for Sun House emergency shelter to mitigate the impacts of COVID-19 for residents and staff 8) include Hazard Pay for NWYS staff serving ESG eligible youth

The goal of these funded services is to bring people inside in temporary and permanent housing to reduce the risk of the spread of COVID-19, and facilitate transition to permanent and stable housing quickly. The grant total is \$3,044,770 and provides funding through September 30, 2022. In 2021, Council approved the original grant supplemental budget request #2021-3140. We anticipate \$1,545,000 of the full award to be spent in 2021, leaving a balance \$1,500,000 to be spent in 2022.

1b. Primary customers:

Whatcom County individuals and families experiencing and/or at risk of homelessness.

2. Problem to be solved:

On January 28, 2021, 859 people in Whatcom County were counted as experiencing homelessness during the annual Point in Time (PIT) Count. In addition to those counted, hundreds more are known to be at risk of losing their homes and becoming homeless in Whatcom County. The number of shelter beds available for families with children, youth and young adults, and highly vulnerable singles, is insufficient to meet the current need. Additionally, households living in vehicles, outdoors, and doubled up in overcrowded conditions may be unable to meet social distancing recommendations, and often lack access to sanitary facilities for personal care needs. Congregate living situations are not recommended during the COVID-19 pandemic. Increased case management is needed to increase capacity to assist households in achieving housing stability and retention.

3a. Options / Advantages:

These additional funds will support an expansion of shelter options thereby promoting individual as well as

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3440

Fund 122

Cost Center 122800

Originator: Ann Beck

public health and welfare interests. The provision of safe shelter and rental assistance, in combination with case management and related support, will reduce potential exposure to and spread of COVID-19, and focus on housing stability objectives resulting in permanent housing.

3b. Cost savings:

These funds are supported by federal dollars passed on through the state and will not impact local funds. The intent of these funds is to mitigate, prepare for, prevent, and end the spread of COVID-19 in the community among vulnerable populations. The resources supported by these funds are intended to avoid the spread of COVID-19 in the community and related costs, and support public health. People in emergency shelters and permanent housing, and receiving case management, are more likely to achieve housing stability, and thereby reduce public costs related to homelessness and the spread of COVID-19.

4a. Outcomes:

Increased capacity of shelter and rental assistance resources and increased numbers served for highly vulnerable populations to prevent, mitigate, and prepare for the spread of COVID-19 in the community among vulnerable populations lacking stable housing.

4b. Measures:

Increase in number served of those at high-risk of or experiencing homelessness with increased non-congregate emergency shelter capacity, rental assistance and case management throughout the county.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Washington State Department of Commerce is dispersing these funds which originate from the U.S. Department of Housing and Urban Development (HUD).

Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 3506 Fund 123 Cost Center 123101 Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Stormwater Engineering shift to LWSU

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$72,717)
	6290	Applied Benefits	(\$53,811)
	8301.169	Operating Transfer In	\$126,528
	Request Total		\$0

1a. Description of request:

The Lake Whatcom Stormwater Utility (132) has reevaluated their need for stormwater engineering support in 2022. To accommodate their needs, engineering time and effort will be shifted from the Stormwater Fund (123) to the Lake Whatcom Stormwater Utility Fund (132). This will not result in new FTE's but will instead reallocate their time within the Stormwater Division.

As the Stormwater Fund (123) is funded by the Flood Control Zone District Fund (169), this will result in a net zero change to the Stormwater Fund but will reduce expenditures on the Flood Fund budget by approximately \$126K.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Stormwater funding comes from the flood fund. This reduction in spending will result in savings to the Flood Fund balance.

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3416

Fund 124

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments- Behavioral Health

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$60,552
	6190	Direct Billing Rate	(\$19,826)
	6210	Retirement	\$6,207
	6230	Social Security	\$4,633
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,859
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$158
	Request Total		\$70,727

1a. Description of request:

Add back Community Health Specialist "frozen" position and adjust direct billing rate accounts.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Behavioral Health Programs Fund

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3443

Fund 124

Cost Center 124116

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Triage Facility Maintenance

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6659.002	Building Maintenance Fee	\$39,000
	Request Total		\$39,000

1a. Description of request:

The purpose of this request is to request expenditure authority to cover annual maintenance expenses for the original crisis stabilization center located at 2030 Division Street, Bellingham WA. The facility is owned by the County and provides office space for mental health service providers who provide outreach services for the new Crisis Stabilization Center. When completing the current 21-22 budget, the maintenance expenses for the original facility were unintentionally omitted.

1b. Primary customers:

The facility currently provides a home base for behavioral health agency personnel who provide crisis outreach and recovery support. The professionals who use this space also provide back-up support to the services provided at the newly-constructed Crisis Stabilization Center.

2. Problem to be solved:

The County owned building requires ongoing annual maintenance service. Personnel who provide crisis services need a location close to the Crisis Stabilization Center to provide back-up services.

3a. Options / Advantages:

Use of the facility by behavioral health crisis outreach staff supports the community in services and increases behavioral health crisis support in a location that includes the recently completed Crisis Stabilization Center.

3b. Cost savings:

n/a

4a. Outcomes:

Necessary building maintenance will be completed to ensure the building is available for occupancy

4b. Measures:

Ongoing maintenance will ensure the location is available for tenants.

5a. Other Departments/Agencies:

The Facilities Department manages the building maintenance needs of this County building.

5b. Name the person in charge of implementation and what they are responsible for:

Robert Ney, Facilities Manager

6. Funding Source:

Behavioral Health Program Fund. The Behavioral Health Fund anticipates a balance of \$5.5 M at the end of 2021.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3444

Fund 124

Cost Center 124121

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Training for First Responders & Providers

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4367.1000	Donations	(\$20,000)
	6610	Contractual Services	\$20,000
	Request Total		\$0

1a. Description of request:

The Health Department is requesting expenditure authority to utilize dedicated grant funding to create a training program for community professionals who respond to people experiencing episodes of behavioral health distress. This one-time grant was received in 2021 and continues into 2022. The full grant award is \$27,000.

1b. Primary customers:

Training recipients will include First Responders from Law Enforcement and EMS as well as community social service providers.

2. Problem to be solved:

Whatcom County Health Department is working closely with community partners to expand and develop new programs that will respond and provide support to residents who are experiencing behavioral health distress or crises, or medical issues that don't require emergency services. First Responders and other professionals have identified the need for specialized training to enhance their knowledge, skills and abilities as they work in these new programs.

3a. Options / Advantages:

Training videos and other forms of training will provide responders and community professionals with the tools they need to be effective in their interventions and support of people in need. Curriculum will be available online and accessible.

3b. Cost savings:

Grant funding will provide the support for this training project, saving taxpayer dollars.

4a. Outcomes:

Training materials, websites, and curriculum will be available to professionals for use as needed. First responders and social services providers will be better equipped to manage the people they are working with and will be more familiar with resources in the community.

4b. Measures:

Number of professionals accessing and receiving training from all law enforcement agencies, all EMS districts, and social service providers. Since much of the training will be via video, community professionals will access to the trainings for many years into the future.

5a. Other Departments/Agencies:

The County will work with a consultant to accomplish the project, with input from EMS and Law Enforcement personnel, and GRACE leadership.

5b. Name the person in charge of implementation and what they are responsible for:

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3444

Fund 124

Cost Center 124121

Originator: Perry Mowery

n/a

6. Funding Source:

Whatcom Community Foundation

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3445

Fund 124

Cost Center 124120

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: City of Bellingham GRACE Award Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4337.1001	City of Bham Support	(\$140,000)
	6120	Extra Help	\$10,000
	6610	Contractual Services	\$112,603
	8351	Operating Transfer Out	\$17,397
	Request Total		\$0

1a. Description of request:

We are requesting expenditure authority of dedicated grant funding to expand the GRACE (Ground-level Response and Coordinated Engagement) program. This two-year award was received in 2021 and continues in 2022. This funding supports the addition of an Intensive Case Manager for the GRACE program, new program components that respond to people who are experiencing a behavioral health crisis, and development and training for public education of the programs.

1b. Primary customers:

GRACE serves people who require intensive supports and coordination among providers to ensure stability of general and behavioral health. People who are experiencing a behavioral health crisis, yet are not GRACE members will be served with the new GRACE program component.

2. Problem to be solved:

A. People who use emergency response systems often to try to meet their needs, often cycle through these systems without receiving sufficient benefit.

B. People who are experiencing a behavioral health crisis and call 911 may be more appropriately served by a non-law enforcement response.

3a. Options / Advantages:

A. GRACE provides coordinated care and community support to its members, thereby reducing unnecessary emergency services responses, while promoting greater health and stability.

B. People, who are non-GRACE members, who call 911 when having a behavioral health crisis may receive more effective and appropriate care when behavioral health professionals respond on scene. Law enforcement's primary role is public safety, which is not always relevant to 911 calls for behavioral health crises.

3b. Cost savings:

Behavioral health services delivered pursuant to a coordinated community support plan are less expensive and more effective than numerous emergency services responses from EMS or law enforcement.

4a. Outcomes:

The GRACE program will increase personnel and provide services to an additional 20 people at any given time.

4b. Measures:

Number of additional people served in the GRACE program in conjunction with Bellingham Police

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3445

Fund 124

Cost Center 124120

Originator: Perry Mowery

Department.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Funding for this request is provided by the City of Bellingham, a key partner in the GRACE program.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3469

Fund 124

Cost Center 124100

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Behavioral Health Services Support

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.1400	Chem Dpdcy/Mental Hlth T	(\$1,200,000)
	6610	Contractual Services	\$230,000
	8351	Operating Transfer Out	\$32,637
	Request Total		(\$937,363)

1a. Description of request:

We are requesting an increase in expenditure authority to provide increased behavioral health services much needed in our community. These programs and services are focused on prevention, intervention, treatment courts, recovery support and specialized housing. Approval of this request would allow us to expand these services in 2022.

1b. Primary customers:

Whatcom County residents with behavioral health concerns.

2. Problem to be solved:

A community focus on improving the behavioral health of county residents has been a high priority, especially in efforts to prevent or reduce interface with the criminal justice system, reduce homelessness, and promote the health and welfare of children, youth and their families. The COVID pandemic has impacted many residents, with increasing rates of anxiety and depression being reported. Crisis line calls have increased during the pandemic, and the behavioral health workforce has diminished, creating a challenging situation. Permanent supportive housing programs are experiencing a significant need for on-site behavioral health support due to increasing events of volatile behaviors by the residents and lack of skills for addressing such by resident staff.

3a. Options / Advantages:

Ensuring that programming is in place for people who are experiencing behavioral health disorders or crises is a goal of the Health Department and the community.

3b. Cost savings:

Behavioral health services and support reduce cost burden on the county because they result in increased employability, healthy family life, and improved mental health and well-being.

4a. Outcomes:

Expected outcomes include increased engagement in treatment services, increased housing stability for persons with behavioral health disorders, decreased utilization of costly emergency services, decreased law enforcement contacts, decreased jail bookings and days spent in jail.

4b. Measures:

The Behavioral Health Advisory Committee in conjunction with the Health Department will provide formal reports to the community in 2022. Success will be measured by analyzing performance measures delivered. Performance measures will include number of contacts with identified clients, client caseload ratios, connection to treatment services, access to housing, stability in housing programs, and decreased contacts with emergency services and criminal justice systems.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3469

Fund 124

Cost Center 124100

Originator: Perry Mowery

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Behavioral health sales tax projected revenue increase during 2022.

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3530

Fund 124

Cost Center 124100

Originator: M Caldwell

Year 1 2021

Add'l FTE ☐

Priority 1

Name of Request: Trf in support of Jail Medical Social Worker

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.118	Operating Transfer Out	\$62,500
	Request Total		\$62,500

1a. Description of request:

Companion to Corrections supplemental request #3364 for a Medical Social Worker, provide 50% funding

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Behavioral Health Programs Fund

Supplemental Budget Request

Status: Pending

Superior Court

Suppl ID # 3429 Fund 124 Cost Center Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 wage & benefit adjustments - Drug Ct

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$5,883
	6210	Retirement	(\$5,843)
	6230	Social Security	\$452
	6245	Medical Insurance	\$123
	6255	Other H&W Benefits	\$1,759
	6259	Worker's Comp-Interfund	(\$52)
	6269	Unemployment-Interfund	\$18
	Request Total		\$2,340

1a. Description of request:

Record 2% COLA, reduction in retirement rates and other benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Behavioral Health Fund

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3473

Fund 127

Cost Center 127100

Originator: Perry Mowery

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Specialized Support Services Expansion

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$30,000
	8351	Operating Transfer Out	\$4,257
	Request Total		\$34,257

1a. Description of request:

The Health Department is requesting an increase in spending authority in order to increase contracted services with community providers.

1b. Primary customers:

Whatcom County residents challenged with mental illness and in need of specialized support services and housing.

2. Problem to be solved:

People living with serious and persistent mental illness sometimes require specialized housing and support services in order to attain and retain their housing, and stabilize the symptoms of their illness. The county has prioritized housing for vulnerable populations and the increased revenue in the millage fund allows for additional investment in these services.

3a. Options / Advantages:

Mental Health millage revenue has increased over budgeted expectations. Keeping the funding support at the current level even though revenue has increased does not serve the public well. Millage use is guided by state statute and the county can only use the fund for the activities allowed. It is important to optimize the support allowed under funding availability.

3b. Cost savings:

Mental Health Millage is a dedicated source of revenue for people suffering from mental illness. Providing supportive services and stable housing not only improves the health and well-being of the population, but also reduces the cost burden on the county as stable health results in increased employability, positive family life, and improved social relationships.

4a. Outcomes:

Expected outcomes include increased engagement in treatment services, increased housing stability for persons with serious and persistent mental illness, decreased utilization of costly emergency services, decreased law enforcement contacts, decreased jail bookings and days spent in jail.

4b. Measures:

The Behavioral Health Advisory Committee in conjunction with the Health Department will provide formal program reports to the community in 2022. Success will be measured by analyzing performance measures delivered. Performance measures will include number of individuals who have been served in specialized shelters and permanent housing, to include housing retention data.

5a. Other Departments/Agencies:

Services will be delivered by various community partners.

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3473

Fund 127

Cost Center 127100

Originator: Perry Mowery

n/a

6. Funding Source:

Mental Health Millage fund.

Supplemental Budget Request

Status: Pending

Public Works

Engineering Bridge & Hydraulic

Suppl ID # 3501

Fund 128

Cost Center 128200

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Swift Creek Transfer Increase

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8301.169	Operating Transfer In	(\$7,998)
	8301.108	Operating Transfer In	(\$7,998)
	Request Total		(\$15,996)

1a. Description of request:

Whatcom County is required by a binding consent decree to make \$300k (\$150k Road Fund and \$150K Flood Fund) annual transfers into the Swift Creek Sediment Management Fund for the continued efforts to deal with Swift Creeks sediment. The amount is scheduled to increase annually based on changes to CPI. At the time of the 2021-2022 budgeting it was not anticipated to increase as much as it did. This request brings the budget in line with the 2022 transfers in.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Revenue will be received to the Swift Creek Sediment Management Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3318

Fund 130

Cost Center 130100

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 EMS Revenue & Contractual Adjustments

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4311.1000	Current Year Collections	(\$179,669)
	4313.1500	Special Purpose Tax	(\$420,000)
	4332.9340	GEMT Payment Program	(\$850,000)
	4342.2110	Emergency Medical	(\$178,501)
	4342.2111	City of Blaine	(\$10,501)
	4342.2112	City of Everson	(\$6,301)
	4342.2113	City of Ferndale	(\$31,500)
	4342.2114	City of Lynden	(\$31,500)
	4342.2115	City of Nooksack	(\$4,200)
	4342.2116	City of Sumas	(\$3,674)
	4361.1100	Investment Interest	(\$115,000)
	6110	Regular Salaries & Wages	\$3,969
	6210	Retirement	(\$4,738)
	6230	Social Security	\$305
	6245	Medical Insurance	(\$473)
	6255	Other H&W Benefits	\$898
	6269	Unemployment-Interfund	\$11
	6625	Software Maint Contracts	\$65,596
	6630	Professional Services	\$8,317
	6680	Office Equip Maintenance	\$111,636
	7210.001	Intergov Prof Svcs	\$78,701
	7210.004	Intergov Prof Svcs	\$367,612
	7210	Intergov Prof Svcs	\$262,841
	Request Total		(\$936,171)

1a. Description of request:

This budget supplemental makes the necessary 2022 budget adjustments for increased revenue amounts and contractual cost adjustments. Original revenue assumptions made during the biennial budget process in summer of 2020 were necessarily conservative because of the unknown economic impact of the pandemic. Assumptions concerning the property tax collection rate, sales tax income, GEMT funding and investment interest income have all been increased. Wages and benefits have been adjusted due to 2% COLA, reduction in retirement rates and other benefit rate changes. Budget for the Stryker equipment agreement has been added and Image Trend software maintenance has been increased to account for

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3318

Fund 130

Cost Center 130100

Originator: Tawni Helms

the merge of Bellingham Fire Dept users into the county's contract. County ALS service provider and MPD contracts are tied to the annual June Seattle - Bellevue - Everett CPI-W index which increases the contracts by 6.3% in 2022. Additionally, What-Comm/Prospect has added additional staffing and other changes which increase the EMS contribution by \$367,612 in 2022.

1b. Primary customers:

Whatcom residents and users of the EMS System

2. Problem to be solved:

EMS Administration budget needs to be adjusted for significant changes in revenue and contractual adjustments to allow for accurate financial reporting and adequate expenditure authority in 2022.

3a. Options / Advantages:

Contractual obligations must be met.

3b. Cost savings:

n/a

4a. Outcomes:

The proposed budget increases will cover increased costs in the ALS contracts and other agreements.

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

EMS Fund.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3333

Fund 130

Cost Center 130110

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: EMS Admin Training Specialist 2022 budget

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$1,735
	6210	Retirement	(\$2,064)
	6230	Social Security	\$133
	6245	Medical Insurance	\$271
	6255	Other H&W Benefits	\$396
	6269	Unemployment-Interfund	\$5
	6510	Tools & Equip	\$3,500
	6610	Contractual Services	\$37,000
	6870	Space Rental	\$5,600
	7110	Registration/Tuition	\$10,000
	Request Total		\$56,576

1a. Description of request:

Adjusts Training Specialist wage and benefit to account 2% COLA, reduction in retirement rates and other benefit rate adjustments.

Requests \$10,000 budget authority to develop instructors to provide training to the EMS System. This includes CPR Instructor and EMS Evaluator courses, materials and tuition for the providers, and cost of the lead instructor in the development program. This line item also includes professional development for the Training Specialist to attend courses or conferences. \$5,600 is requested for rental of training space and \$3,500 is requested for equipment to train and educate the EMS System providers and staff.

\$37,000 is requested to provide for an Advanced Airway Course for paramedics, respiratory therapists, physicians, and nurse anesthetists. It is anticipated there will be some cost recovery from non EMS providers and out of county EMS providers. Those fees have not yet been set.

1b. Primary customers:

Whatcom County citizens.

2. Problem to be solved:

This supplemental will provide for further development of the EMS provider training program which is of benefit to all Whatcom County citizens.

3a. Options / Advantages:

Current option is that each agency acquire their own training. There is a benefit to the system to ensure all personnel from various agencies are 1) adequately trained and 2) trained to the same quality standard as the EMS training program will be able to provide. This training is necessary to adequately and appropriately staff the EMS system.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3333

Fund 130

Cost Center 130110

Originator: Tawni Helms

3b. Cost savings:

n/a

4a. Outcomes:

Outcomes will occur as training courses are completed. All EMS agencies will benefit from advanced and continuing education in the subject areas.

4b. Measures:

Personnel will be able to perform the necessary procedures they have been trained on.

5a. Other Departments/Agencies:

All EMS provider agencies will be positively impacted by better training opportunities.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

EMS Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3334

Fund 130

Cost Center 130115

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Community Paramedic 2022 budget

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210	Intergov Prof Svcs	\$196,189
	7210.001	Intergov Prof Svcs	(\$477)
	Request Total		\$195,712

1a. Description of request:

This request adjusts the 2022 Community Paramedic budget to \$196,667 for each of 3 community paramedics at both Fire District 7 and Bellingham Fire Department for a total of \$590,000 for the program.

1b. Primary customers:

2. Problem to be solved:

The third community paramedic position, which is through Bellingham Fire Department, has not been funded as an ongoing position in the biennial budget. This supplemental is needed to fund the position, which was added to the EMS Fund budget in 2021, throughout 2022. At the beginning of 2021, BFD requested that the EMS Fund take over funding of this position as they could no longer afford to do so.

3a. Options / Advantages:

Eliminate the third community paramedic position.

3b. Cost savings:

None

4a. Outcomes:

Three community paramedics will continue to deliver valuable services.

4b. Measures:

5a. Other Departments/Agencies:

Bellingham Fire Department will be provided funding for both of their community paramedics.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

EMS Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3336

Fund 130

Cost Center 130100

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: EMS Administration - Administrative Assistant

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$60,576
	6210	Retirement	\$7,422
	6230	Social Security	\$4,634
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$1,859
	6259	Worker's Comp-Interfund	\$520
	6269	Unemployment-Interfund	\$158
	Request Total		\$91,585

1a. Description of request:

The EMS Administration division has a wide range of responsibilities to administer the Whatcom County EMS System. Administrative support is needed for a high volume of budget processes including financial reporting, accounts payable, and budgeting. Other duties will include recording and retrieval of data and information for new existing and new programs. The administration is also responsible for facilitating several EMS board meetings including Finance Committee, Technical Advisory Board, and the EMS Oversight Board.

1b. Primary customers:

EMS stakeholders.

2. Problem to be solved:

The EMS Administration Division has evolved since the passage of the 2016 EMS Levy. The administration has operated as a functional department managing the countywide EMS system without dedicated administrative support. This has compromised the ability of staff to produce the high volume of work necessary to facilitate meetings schedules, budgeting and other general office duties. The addition of a full time administrative assistant will fill a void and allow for greater effectiveness in the division.

3a. Options / Advantages:

The division has operated with the help and support of the Executive Office staff, volunteers and the willingness of the Manager to perform clerical duties in off hours. With the volume of work increasing it is imperative for the EMS division to assume all administrative functions to more effectively manage their budget, meeting facilitation and other complex duties.

3b. Cost savings:

n/a

4a. Outcomes:

The EMS division will be equipped to complete all administrative duties in an efficient and timely manner.

4b. Measures:

A new FTE will be hired to fulfill the administrative assistant position. This will ensure greater consistency and fulfillment of the required administrative work.

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3336

Fund 130

Cost Center 130100

Originator: Tawni Helms

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

EMS Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3374

Fund 130

Cost Center 130100

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: EMS Administration - Data Analyst Budget

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4369.9001	Miscellaneous Revenues	(\$22,500)
	6510	Tools & Equip	\$2,372
	6610	Contractual Services	\$8,750
	6625	Software Maint Contracts	\$63,100
	7110	Registration/Tuition	\$2,165
	7190	Other Miscellaneous	\$110
	Request Total		\$53,997

1a. Description of request:

The data analyst position is responsible for maintaining, analyzing and elevating the data through various software technology. These technologies are sophisticated and technical requiring ongoing training as well as new software implementation. This budget supplemental recognizes the cost of implementing Tableau software as well as recognizing the ongoing software maintenance fees for Julota which had previously been covered by other funding sources. The Julota software is a mobile integrated software used by EMS, the Health Department and Peacehealth which allows different organizations to share data across platforms. The cost is to be shared between the entities using the program. Tableau is an interactive data analysis and dashboard program that will allow users to see and analyze EMS data that will help drive informed decisions about managing the countywide EMS system.

1b. Primary customers:

EMS, Health and PeaceHealth

2. Problem to be solved:

The Julota software platform provides an automated collaboration between the agencies. Mobile integrated health is essential for ensuring immediate access to timely information by all parties.

Tableau will help users see and make sense of EMS data and provide better decision-making tools.

Ongoing training and certification is essential to managing these data systems.

3a. Options / Advantages:

Not implementing Tableau is an option but results in making decisions in a more subjective manner rather than in a more analytic and data-driven manner. The Julota system is currently being used by all parties. Consistent training is essential to maximizing the software platforms to their full capabilities.

3b. Cost savings:

4a. Outcomes:

Improved processes once Tableau is implemented and personnel are trained. Continued use of Julota which has proven invaluable in sharing clientele information across agencies.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3374

Fund 130

Cost Center 130100

Originator: Tawni Helms

4b. Measures:

5a. Other Departments/Agencies:

IT, all EMS agencies, PeaceHealth and the Health Department and its contractors. Impact will be reliable information to make data-driven decisions (Tableau) and continued ability to share client information between the EMS system, GRACE program, law enforcement and the hospital.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

EMS Fund

Shared cost for Julota software between users; EMS, Health and PeaceHealth.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3427

Fund 130

Cost Center 130110

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Lateral Paramedic Training

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210.001	Intergov Prof Svcs	\$118,672
	7210	Intergov Prof Svcs	\$237,344
	Request Total		\$356,016

1a. Description of request:

Both Fire District 7 and Bellingham Fire Department are recruiting and training lateral paramedic candidates from other agencies as opportunity allows. This budget will provide for training up to 4 lateral candidates at BFD and up to 2 candidates at FD7. Agencies will be reimbursed for actual costs based on budgets of \$9,706 per month for each candidate for up to 6 months of training plus \$1,100 each for evaluation fees.

1b. Primary customers:

The community and EMS system benefits from fully trained and staffed ALS units.

2. Problem to be solved:

Recruiting trained paramedics from other agencies is an effective and more cost effective way to fill paramedic vacancies. The six new laterals will be able to work as paramedics at an accelerated rate because the lateral training is significantly shorter than training new aspiring medics.

Candidates are required to be trained and tested on Whatcom County protocols. These new lateral hires will help to increase the number of paramedics necessary to fully staff the ALS units.

3a. Options / Advantages:

Lateral hires is an efficient, cost saving and timely method of recruiting new paramedics.

3b. Cost savings:

Savings are considerable when considering the cost of training new medics through the Bellingham Technical College/BFD sponsored program.

4a. Outcomes:

Fully trained paramedics will be available in 4 - 6 months if they pass the training evaluations.

4b. Measures:

Success will be measured when candidates have successfully passed all evaluations.

5a. Other Departments/Agencies:

Bellingham Fire Department and Fire District 7 as Whatcom County ALS providers. Impact will be increased number of paramedics available for service.

5b. Name the person in charge of implementation and what they are responsible for:

Chief Hewitt and MSO Ryckman for BFD
Chief Hoffman and Chief Boyko for FD7
responsible for oversight of the trainees

6. Funding Source:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3427

Fund 130

Cost Center 130110

Originator: Tawni Helms

EMS Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3461

Fund 130

Cost Center 130110

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Paramedic Training Class

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210	Intergov Prof Svcs	\$1,555,200
	Request Total		\$1,555,200

1a. Description of request:

Contract with Bellingham Fire Department for 2022 Paramedic Training Class for 10 students (7 from BFD and 2 from FD7 and 1 N. Whatcom).

The contract will cover the following costs:

Lead Instructor	\$184,500
Physician	16,000
Instructors	56,000
Facilities	15,000
Administrative	33,000
BTC Fees	26,200
Cadaver Lab	30,000
Preceptor Fees	50,000
Evaluation Fees	11,000
Student Equipment	63,500
Student Wages & Benefits	1,070,000
Total	\$1,555,200

1b. Primary customers:

citizens of Whatcom County

2. Problem to be solved:

With the addition of a 5th Medic Unit as well as current paramedic attrition due to turnover and retirements, a new paramedic training class is needed in 2022.

3a. Options / Advantages:

Lateral paramedic candidates are also being recruited, there is enough need to accommodate laterals and new students.

3b. Cost savings:

None

4a. Outcomes:

10 new paramedics available for duty approximately 9 months after the class starts.

4b. Measures:

Success will be measured by all candidates passing the course and being able to serve on an ALS rig.

5a. Other Departments/Agencies:

BFD, FD7 and BTC all 3 agencies will be involved in providing students and/or providing training.

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3461

Fund 130

Cost Center 130110

Originator: M Caldwell

Steve Cohen/EMS Training Specialist provides oversight

6. Funding Source:

EMS Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3432

Fund 130

Cost Center 130200

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Public Safety sales tax adjustment

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.7300	Criminal Justice(Sp Purp	(\$200,000)
	Request Total		(\$200,000)

1a. Description of request:

To adjustment Public Health & Safety - Criminal Justice portion sales tax based on 2021 projected plus approximately 5% growth

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Sales Tax

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3467

Fund 130

Cost Center 130120

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 5th Medic Unit Implementation

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210	Intergov Prof Svcs	\$1,496,500
	Request Total		\$1,496,500

1a. Description of request:

Contract with Bellingham Fire Department for 5th medic unit implementation costs:

Costs covered include:

IT Equipment	\$13,000
Durable Medical Equipment	18,000
PPE	27,000
Medical Kits	7,500
Miscellaneous	15,000
Subtotal	\$80,500

Plus up to 10 paramedic FTEs currently paid in the COB General Fund that will be moving to mixed ALS/fire status in 2022. They will staff a part time rig as capacity permits. BFD will be reimbursed for the actual costs of the paramedics which are estimated to be \$11,800 per month each for a total of \$1,416,000.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

Bellingham Fire Department

5b. Name the person in charge of implementation and what they are responsible for:

Chief Hewitt

6. Funding Source:

EMS Fund

Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 3505

Fund 132

Cost Center 132100

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Lake Whatcom Stormwater Utility 2022 Update

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$72,717
	6290	Applied Benefits	\$53,811
	6630	Professional Services	\$10,500
	6780	Travel-Educ/Training	\$500
	7060	Repairs & Maintenance	\$70,000
	7110	Registration/Tuition	\$1,000
	7380	Other Improvements	(\$200,000)
	Request Total		\$8,528

1a. Description of request:

The Lake Whatcom Stormwater Utility (132) has re-evaluated its needs for its 2022 budget. Major changes include:

- A determination that the assistance of an engineer FTE is necessary to move projects forward. This FTE will be reallocated from the Stormwater Fund (123)
- A reduction in the 2022 large project construction program
- An increase in the 2022 small works (repair and maintenance) projects
- An increase in professional services for social marketing and graphic design contracts.

1b. Primary customers:

Property owners residing in the Lake Whatcom Stormwater Utility district

2. Problem to be solved:

At this time, capital improvement projects in Lake Whatcom are primarily covered by REET funding. Rather than spending \$250,000 of LWSU funds on capital projects in 2022, it was decided that REET should continue to be the primary funding source. This will allow the LWSU fund balance will build up over the next few years so that it's available as needed to supplement future capital projects. Additionally, the M&O NPDES crew has encountered staffing and resource shortages that have prevented them from completing the requested maintenance and repair projects for the past few years. In 2022, contractors will be hired to complete the necessary small works projects, which requires an increase in budget over last year.

3a. Options / Advantages:

N/A

3b. Cost savings:

N/A

4a. Outcomes:

The overall budget request is only increased by \$8,528. LWSU funding will be directed more toward maintenance and small works repair projects, rather than large capital projects in 2022. Additional funding will also be spent on education and outreach graphic design contracts and social marketing campaigns in

Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 3505

Fund 132

Cost Center 132100

Originator: Randy Rydel

Lake Whatcom.

4b. Measures:

N/A

5a. Other Departments/Agencies:

The LWSU will rely less on Road Maintenance and Operations crews for completion of necessary maintenance and repairs to facilities. This should open them up for more of the tasks that M&O has traditionally completed.

5b. Name the person in charge of implementation and what they are responsible for:

Holly Faulstich, Natural Resource Specialist III in the Stormwater Division is responsible for overseeing the LWSU program, budget and implementation.

6. Funding Source:

Lake Whatcom Stormwater Utility Fund 132

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3442

Fund 133

Cost Center 133100

Originator: Ann Beck

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: Affordable Housing Development

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.2500	Housing & Related Svcs Tax	(\$1,181,215)
	6110	Regular Salaries & Wages	\$123,905
	6230	Social Security	\$9,479
	6245	Medical Insurance	\$32,832
	6255	Other H&W Benefits	\$16,434
	6259	Worker's Comp-Interfund	\$1,456
	6269	Unemployment-Interfund	\$323
	6610	Contractual Services	\$850,000
	8351	Operating Transfer Out	\$146,786
	Request Total		\$0

1a. Description of request:

The Health Department requests budget authority to add capacity to the Housing and Behavioral Health Programs in Whatcom County. This funding would support an additional Housing Specialist and Coordinator in the Human Services Division of the Health Department. This funding would also support case management and behavioral health services for eligible community members, with a large focus on the increased number of families becoming homeless. Per RCW, 60% of these funds must be dedicated for the development of affordable housing in the community such as construction and renovation.

1b. Primary customers:

The affordable housing developed with these funds will be available to those at 60% Area Median Income or below, with a particular focus on veterans, seniors, families with children, people with disabilities and survivors of domestic violence. This funding is tied to RCW 82.14.530 and housing and facilities providing housing must serve those populations specified in the RCW. Case management and behavioral health programs would also be focused on these same customers.

2. Problem to be solved:

In regards to the positions for staffing, the expanse and complexity of work in the homelessness and affordable housing program has increased significantly over the past few years. Grant revenues from the state and federal government have increased, along with the need for comprehensive reporting to the funders as well as program development. Homelessness issues locally have increased the need for the county to work more closely with city and community partners, and has also increased the need for county staff to provide intensive technical assistance to housing providers and developers. Two new local revenue sources have created the need for a robust affordable housing development component in the housing program that requires new sets of skills and relationships with community partners. The current two Housing Specialists have been struggling to meet the growing work demands of the program now, and with additional monies and associated expectations, staffing is now insufficient to meet the expectations, demands, and opportunities that the multimillion-dollar program has.

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3442

Fund 133

Cost Center 133100

Originator: Ann Beck

In regards to funding portion for housing development and services available, the concerns and challenges around homelessness and behavioral health needs in the community continue to grow. This new funding would expand housing inventory as well as the services needed for folks to be achieve and maintain stable housing.

3a. Options / Advantages:

The Human Services Manager and Human Services Supervisor have been performing some of the work of the Housing Specialists in an effort to meet work demands. This is not sustainable at the level currently required. New stable local monies require staff technical expertise in affordable housing development and a consistent point person in the county. Hiring an additional Housing Specialist and Coordinator is the best option to meet the increasing demands of the program and achieve greater outcomes while simultaneously creating in-house expertise and stability in affordable housing development.

Staff has continued to support services in the community with the available resources, but the needs are increasing and this funding can help increase capacity for services and housing. This funding would offer the new human services positions dedicated funds to focus on creating more affordable housing options, as well as the corresponding funds to offer programming to those in need of supportive and stabilizing services.

3b. Cost savings:

This new source of local funding which supports affordable housing development eliminates the need for general fund support to increase housing staff capacity. Increased revenue from document recording fees will also help offset the costs of this new position in future years.

Increased affordable housing in the county will relieve pressure on the current system and help to move people from shelter to permanent housing. Emergency shelter, such as motel stays is an expensive model that could be reduced with more housing options available. Additional staff time will increase Whatcom County's ability to secure grants and other funding from state and federal sources, as well as deploy it effectively in Whatcom County.

4a. Outcomes:

Capacity for behavioral health and housing services will be increased in the community with newly developed programs and partnerships before the end of 2022.

The county will have an affordable housing development specialist that will facilitate creation of new housing units in the county, serve as the county point person for affordable housing efforts, and support the need for reasonable workloads for the housing program staff who can then meet demands with high quality work.

4b. Measures:

The new Housing Specialist will be hired and begin to assume the work already initiated in affordable housing, and expand upon it.

With added housing capacity there will be movement of households out of emergency shelter and into permanent housing within the various programs providing support, and the additional services and supports will increase the number of Whatcom residents who achieve and maintain stability in housing projects.

5a. Other Departments/Agencies:

The City of Bellingham is supportive of additional county staffing since it will improve collaborative efforts in both affordable housing development as well as addressing the current challenges facing those who are experiencing homelessness. The City of Bellingham will continue to meet regularly with County staff to maximize funding to serve those in need throughout Whatcom County with housing and services. Small city governments are depending on the county to provide leadership and technical expertise in affordable housing development outside the limits of the city of Bellingham.

5b. Name the person in charge of implementation and what they are responsible for:

n/a

Supplemental Budget Request

Status: Pending

Health

Human Services

Suppl ID # 3442

Fund 133

Cost Center 133100

Originator: Ann Beck

6. Funding Source:

Fund 133- Sales and Use for Housing and Related Services

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3476

Fund 138

Cost Center

Originator: Erika Lautenbach

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: COVID Response Staffing and Health Data System

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$1,392,828
	6120	Extra Help	\$270,596
	6190	Direct Billing Rate	\$97,295
	6210	Retirement	\$144,740
	6230	Social Security	\$106,822
	6245	Medical Insurance	\$574,290
	6255	Other H&W Benefits	\$63,772
	6259	Worker's Comp-Interfund	\$25,480
	6269	Unemployment-Interfund	\$3,621
	6510	Tools & Equip	\$12,000
	6520	Software	\$100,000
	6610	Contractual Services	\$280,000
	8351	Operating Transfer Out	\$788,747
	Request Total		\$3,860,191

1a. Description of request:

In order to support COVID response efforts, the Health Department requests spending authority to support the on-going COVID response operations through December 31, 2022.

This funding request supports the continuation of 35 full time, benefitted, short-term positions for 12 months and 12 part-time temporary positions. These positions include case and contact investigators (CCI), nurses, logistics coordinator, communication specialists, clerks, site schedulers, emergency response specialist, interim manager, and program specialist.

In November 2021, Council approved ASR #2021-6303 for an initial Department of Health COVID ELC grant to fund temporary staff for the COVID response through June 2021. The second COVID ELC grant amendment ASR #2021-3198 extended funding for these positions through December 2021. This is part of the Health Department's shift to a more stable staffing response to the COVID pandemic response and recovery efforts.

In addition, this request includes contractual services such as testing site communication or planning as necessary to prevent the spread of COVID.

The Health Department also requests expenditure authority of \$380,000 to improve and modernize the Department's data systems and data infrastructure. This funding supports a systems analyst position, software upgrades, technical assistance and specialized design. The three-year project will focus on

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3476

Fund 138

Cost Center

Originator: Erika Lautenbach

building interoperability across data systems to improve data access, data quality, ease of use, reporting, and reduce duplicative efforts, maintenance and operational costs.

1b. Primary customers:

Customers are all residents of Whatcom County, who will benefit from timely case and contact investigations, testing availability, quarantine and isolation support, warehouse/PPE management and distribution, accurate data and timely communication responses.

2. Problem to be solved:

Temporary positions create a structural barrier for stable and consistent support as temporary extra help employees may only work full time for three months and then drop hours to 16 hours per week. This challenge contributes to turnover in favor of full-time positions, instability in staffing, severe administrative burden to continually recruit, hire and train additional temporary staff, and reduced capacity to respond to the pandemic.

During the last peak in January/February 2021, we supported this work through shared staffing from other agencies through the structure of Whatcom Unified Command. However, with the stand down of unified command on July 31, after 18 months staff that were fulfilling these roles have been returned to their home agencies.

In order to meet support, response and communications needs required to support substantial and high levels of transmission of COVID-19 in Whatcom County, we need full-time temporary with benefits personnel in logistics, clerical, communications and outreach to manage that workload. The program specialist position will provide community outreach, information, referral, service coordination and health promotion related to COVID-19 for Hispanic/Latino/Latinx community members who experience cultural and linguistic barriers. The Communication Specialist request is in response to the sustained need for timely, reliable, and comprehensive communication and tools to reach residents and the media.

While the intensity of COVID case burden has varied throughout the pandemic, the demand for regular communication locally has consistently remained high and is tied to the success of prevention measures and the credibility of the Health Department and Whatcom County. This position will both provide additional support for communication, with an emphasis on graphic design and videography for the successful candidate or by reassignment of duties within the existing team of Communications Specialists. These are two areas of communication for which the Health Department has contracted services that could be met, in part, with additional in-house capacity. Additionally, adding another full-time position would allow the Health Department to achieve its communication objectives in 2022 without relying on other County or city agencies for temporary staffing reassignments.

In terms of current data systems at the Health Department, multiple programs are using outdated data systems and the current functionality no longer meets their business needs. Data systems currently lack interoperability to collate, analyze and use data. In addition to this, several of the department's data systems have been built internally and lack sufficient ongoing maintenance support. As a result, staff continue to create workarounds that impact productivity and often require additional staff time to address inefficiencies. Some processes still require manual entry of data which increases the risk for human error. The mix of paper-based processes and the lack of interoperability of computer-based systems affect the ability to use data to inform program planning and evaluation. It also impacts the agency's ability to use data for performance accountability and communicate programmatic impacts to stakeholders and the community.

3a. Options / Advantages:

Employees will be advantaged by having benefits, and by having some stability and predictability in their employment status. The County will be advantaged by having a more stable workforce and the ability to attract and retain well-qualified individuals needed to respond to COVID. With the 5th surge of COVID cases, we will be able to support logistics requests from partner agencies, public communications and administrative support for test and vaccine scheduling.

Supplemental Budget Request

Status: Pending

Health

Communicable Disease & Epidemiology

Suppl ID # 3476

Fund 138

Cost Center

Originator: Erika Lautenbach

Modernizing data systems and improving the data infrastructure will increase the department's ability to effectively communicate with stakeholders and the public and inform program planning, evaluation and policy development. It will also decrease the need for manual data entry and data management which can lead to errors and staff time making corrections.

3b. Cost savings:

These positions will support the COVID response and allow regular staff ability to take vacation and decrease overtime. These positions will also reduce need to pull regular staff from other program areas (or other agencies) to support COVID surge response.

A more efficient and appropriate data infrastructure will improve program delivery and evaluation. We will also reduce ongoing maintenance and operational costs of outdated systems and staff time spent on manual data entry and data management.

4a. Outcomes:

Whatcom County businesses and healthcare facilities will be supported with PPE and other supplies logistics coordination. Communication support will result in increased information and data to residents, media and elected officials countywide, and additional volume of linguistically and culturally appropriate education materials and tools for organizations impacted by the virus. More staff available to assist in the response, less administrative time spent in recruitment, hiring and training, more efficient operations with better trained and more experienced staff, less reliance on pulling regular staff from other program areas; when regular staff are surged, there is often a period training/refreshing needed not to mention leaving the programs that are pulled from shorthanded

The Health Department's data systems and the ability to collect, manage, analyze and report program and contractual data will improve.

4b. Measures:

Adequate community testing; 90% of cases called within 24 hours; 80% of contacts called within 48 hours; daily monitoring of all people in isolation and quarantine; timely contact with businesses, schools, day cares, healthcare organizations, and long-term care facilities. Outbreaks will be minimized and managed effectively in partnership with employers. Increased social media posts, information on website, media briefings, education materials, and other communication tools as needed

The data system upgrade measures include:

1. Completion of a Department wide data system assessment, prioritization and project plan for improving the department's data infrastructure.
2. A minimum of 3 data systems upgraded within the first year.
3. Improvement in reports and communications on the impact and effectiveness of the Department's programs and the funds provided for contractual programs in the community.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

American Rescue Plan Act (ARPA) funds

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3343	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: ARPA - Housing Security

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$1,000,000
	7220	Intergov Subsidies	\$1,000,000
	7350	Buildings & Structures	\$1,500,000
	Request Total		\$3,500,000

1a. Description of request:

Housing security will be addressed through a multi-faceted approach. Whatcom County will dedicate funding to infrastructure, temporary shelter and respite and hygiene facilities.

Whatcom County leadership has committed to keep children from sleeping unsheltered in our community, as well as focusing on the well-being of vulnerable youth. The number of families with children entering homelessness has increased throughout the COVID pandemic. The current shelter solution is motel stays while they work with homeless housing providers to move back into permanent housing. Increased efforts, in partnership with the City of Bellingham, are focused on rapidly re-housing these families but the need for emergency housing is part of those efforts. This funding would continue to support motel stays and staffing needed to help families transition out of homelessness.

As winter months approach there is a continued need to support vulnerable youth in the community who are over 18 and living unsheltered. NWYS is operating a winter shelter to offer a space for these youth to safely sleep during the winter months, which will also increase capacity at Basecamp as those youth move from that larger congregate shelter, to a smaller setting designed to meet the needs of youth 18-24. Funding for operations is needed to support this temporary shelter during the winter months.

This supplemental will also support the buildout of a medical respite and hygiene facility for vulnerable populations, primarily the unhoused. The project will provide accessible medical respite beds and showers and laundry services for vulnerable populations.

The County will also be working with community agencies to acquire new affordable housing units. The housing crisis has only been exacerbated by the COVID pandemic. Acquiring new affordable housing units will help support the effort to reduce homelessness in Whatcom County.

\$1M Contractual Services to be used to provide shelter to homeless youth and families
\$1M Intergovernmental Subsidies will be dedicated to pending affordable housing projects
\$1.5M Buildings & Structures to support the build out of a medical respite and hygiene facility for vulnerable populations

1b. Primary customers:

Whatcom County residents, unhoused youth and families and vulnerable populations.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3343

Fund 138

Cost Center

Originator: Tawni Helms

2. Problem to be solved:

This funding would continue to support motel stays and staffing needed to help families transition out of homelessness.

The continued need to support vulnerable youth in the community who are over 18 and living unsheltered. NWYS is operating a winter shelter to offer a space for these youth to safely sleep during the winter months, which will also increase capacity at Basecamp as those youth move from that larger congregate shelter, to a smaller setting designed to meet the needs of youth 18-24.

Funding is also dedicated to providing medical respite and recovery beds to vulnerable populations. Additionally, the site will provide accessible showers and laundry resources for vulnerable populations. Medical respite has the potential to significantly improve the lives of a severely vulnerable population while reducing hospital admissions, decreasing inpatient days and increasing outpatient provider visits. (Biederman, Gamble, Wilson, Douglas, & Feigal, 2019). Readily accessible shower and laundry facilities are a continuing and growing need in the community.

Housing security will be addressed working with community organizations to acquire affordable housing units.

3a. Options / Advantages:

Supporting efforts to mitigate the homeless crisis in our community impacted by the COVID pandemic is an eligible and outcome based use of ARPA funding.

3b. Cost savings:

n/a

4a. Outcomes:

Funding will be dedicated to the vulnerable homeless youth population and used to ensure medical respite beds and accessible showers and laundry are readily available to this vulnerable community impacted by COVID.

4b. Measures:

Access to a facility that provides medical respite beds, showers and laundry will be available to this vulnerable population.

5a. Other Departments/Agencies:

Health Department,

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

American Rescue Plan Act Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3345

Fund 138

Cost Center

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: ARPA - Economic Recovery - Childcare - Capital

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$3,500,000
	Request Total		\$3,500,000

1a. Description of request:

ARPA funding will be used to acquire both buildings and structures in qualified census tracts (Aloha, Millworks, Barkley, BGC Lynden, and Forest Street) to be re-purposed for childcare facilities. As childcare facilities they will be used to increase the capacity for desperately needed childcare services throughout Whatcom County.

1b. Primary customers:

Eligible families in need of quality childcare services.

2. Problem to be solved:

Child care needs far outweigh the community's availability of affordable childcare opportunities in Whatcom County. During the pandemic 80% of Whatcom County child care providers closed temporarily. One in four remain closed today while 67% of child care centers are at risk for closing and 47% of family child care providers are at risk of closing. The amount of currently available child care for kids under age 5 will need to triple by the year 2025 in order to meet Whatcom County's anticipated child care needs. By acquiring these facilities Whatcom County can provide the undisputed need for more readily available quality child care space. These services will help to align families in need of childcare with affordable care.

3a. Options / Advantages:

Low inventory of childcare options in Whatcom County has undermined the community's economic recovery. Reduced options and high cost of child care threaten family budget stability which further impacts the community's economic recovery.

3b. Cost savings:

n/a

4a. Outcomes:

Affordable quality childcare will be available for families in need of affordable quality childcare.

4b. Measures:

These new facilities will be utilized by families needing affordable quality childcare.

5a. Other Departments/Agencies:

Community Partners

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

American Rescue Plan Act

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3346	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: ARPA - Economic Recovery - Childcare Workforce

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$2,000,000
	Request Total		\$2,000,000

1a. Description of request:

Existing childcare facilities are currently understaffed as childcare workers have steadily left the workforce for higher paying jobs as a result of burnout and low wages. The pandemic escalated an already tough employment industry into a staffing crisis. Workers are trading their childcare jobs for other jobs that pay more and have better benefits. Whatcom County will use ARPA funding to support workforce development opportunities to help attract, train and recruit qualified childcare staff. Additionally, incentives and premiums will be used to attract and retain quality workers in this critical industry.

1b. Primary customers:

Families in need of childcare services. Childcare facilities in need of qualified workforce.

2. Problem to be solved:

Childcare services are limited throughout Whatcom County. Families unable to find affordable, quality childcare are most often unable to return to work. Increasing the availability of childcare services by expanding the workforce with well-trained and competitively paid childcare providers will encourage economic recovery in our community as more families can return to work outside of the home.

3a. Options / Advantages:

Childcare opportunities are an integral component to our economic recovery. Without quality, affordable childcare, families are unable to resume full time employment. Having a strong workforce will help the community's economic recovery.

3b. Cost savings:

n/a

4a. Outcomes:

Quality and affordable childcare will be available throughout the community. The childcare workforce will grow as a result of training, recruitment and higher wages.

4b. Measures:

Families will have access to affordable quality childcare.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

America Rescue Plan Act

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3347	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: ARPA - Capital Projects- Community Infrastructure

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7220	Intergov Subsidies	\$3,000,000
	Request Total		\$3,000,000

1a. Description of request:

Whatcom County will work with Bellingham, PUD and the Port of Bellingham on Infrastructure projects such as East Blaine Sewer and the Lynden Fair Stormwater projects. Other small city infrastructure projects may include Blaine's Harvey Water Pump Station and Ferndale's Church Road Sewer Boost and/or their downtown water/sewer projects.

Using ARPA funds to invest in these infrastructure projects will help these communities address their high priority infrastructure needs and help with the economic recovery.

1b. Primary customers:

Whatcom County residents will benefit from the investment in public infrastructure projects and economic recovery.

2. Problem to be solved:

Small cities have big infrastructure needs and ARPA funding can help address them and help with the communities' economic recovery.

3a. Options / Advantages:

Whatcom County is committed to working with the small cities to develop ARPA eligible projects that will serve the public good.

3b. Cost savings:

n/a

4a. Outcomes:

Infrastructure projects will be identified in the small cities and completed utilizing ARPA funds.

4b. Measures:

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

America Rescue Plan Act

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3348	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: ARPA - Broadband Support

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7220	Intergov Subsidies	\$2,000,000
	Request Total		\$2,000,000

1a. Description of request:

Rural broadband has been widely recognized as a crucial resource in establishing equitable opportunities for business and education. Whatcom County will use ARPA funds to add broadband capability for the last mile projects in the Deming, Glacier and Point Roberts communities. The ability for our rural communities to access high speed broad will maximize educational and work opportunities. Both will support the economic recovery in our community.

1b. Primary customers:

Whatcom residents will benefit from access to broadband.

2. Problem to be solved:

Broadband access in our rural communities has been limited and sparse. The opportunity to finally bring that capability into these communities will increase business and educational opportunities to these rural neighborhood communities.

3a. Options / Advantages:

Completing the last mile broadband projects will assist the county in our economic recovery.

3b. Cost savings:

N/a

4a. Outcomes:

the last mile of broadband will be made available to our rural communities.

4b. Measures:

Broadband will be available in our rural communities.

5a. Other Departments/Agencies:

Port of Bellingham

5b. Name the person in charge of implementation and what they are responsible for:

Gina Stark

6. Funding Source:

America Rescue Plan Act Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3356	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: Leased space for Public Defender's new staff

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6870	Space Rental	\$100,000
	Request Total		\$100,000

1a. Description of request:

Rental space is being requested to accommodate the addition of 9 new Public Defender staff to deal with the court case backlog caused by the pandemic. The unfinished second floor of the Public Defender's building will be remodeled to accommodate the increased staffing related to the backlog and will also provide much needed attorney/client privilege meeting rooms. Until this remodel is completed there is an immediate needs for more office space.

1b. Primary customers:

Indigent defendants in the Whatcom County Superior and District Courts will benefit from this additional office space. Providing space for new Public Defenders Office staff will have a positive impact on the courts and P.A.'s office as well because more cases will be processed.

2. Problem to be solved:

The Public Defenders Office is hiring nine additional attorneys to help mitigate the significant backlog of cases. These new attorneys will need a place to work until the 2nd floor remodel is accomplished. Creating new office space will serve to meet the additional space will serve to meet the additional space needs of the department.

3a. Options / Advantages:

Remote work opportunities were also being considered but does not address the need for client/attorney privacy. New attorneys will also benefit from being able to work in the same location as other staff rather than starting a new job remotely. Leasing rental space to accommodate increased staffing until the remodel is complete will ensure the critical work of the Public Defenders Office will not be impacted.

3b. Cost savings:

n/a

4a. Outcomes:

New office space to accommodate the new Public Defenders staff can be acquired during the 2022 year until the remodel is complete.

4b. Measures:

Office space will be leased until the 2nd floor of the Central Plaza Building has been remodeled to accommodate increased staffing needs.

5a. Other Departments/Agencies:

Public Defender, AS-Facilities and AS-IT to set up the new office space.

5b. Name the person in charge of implementation and what they are responsible for:

Rob Ney and Starck Folis

6. Funding Source:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3356

Fund 138

Cost Center

Originator: Tawni Helms

ARPA Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3360	Fund 138	Cost Center	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: *Adminstrating ARPA-Grant Mgr.*

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$81,933
	6210	Retirement	\$10,037
	6230	Social Security	\$6,268
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$2,183
	6259	Worker's Comp-Interfund	\$728
	6269	Unemployment-Interfund	\$214
	6610	Contractual Services	\$100,000
	Request Total		\$217,779

1a. Description of request:

The Grants Manager working out of the Executive Office to respond to the innumerable and unprecedented grant opportunities being made available through ARPA and the new infrastructure package. The work will be accomplished through a small Economic Relief and Recovery team working under Administrative Services and tasked with identifying opportunities, preparing and managing grant applications using ARPA funds. The goal of this team is to improve efficacy of programs that help address negative economic impacts.

1b. Primary customers:

Whatcom County residents and the community at large.

2. Problem to be solved:

Whatcom County is poised to apply for and receive an unprecedented amount of funding through the American Rescue Plan Act. Access to these funds will be contingent on our ability to identify opportunities, align projects with funding eligibility requirements, and submit well-written and timely project proposals and applications.

To accomplish this, Whatcom County must increase its grant administration capacity.

3a. Options / Advantages:

Without adequate personnel to pursue and administer grant funding opportunities, Whatcom County will not be able to take advantage of the unprecedented funding opportunities now available to local governments.

3b. Cost savings:

n/a

4a. Outcomes:

The position will ensure Whatcom County is positioned to receive and administer funding opportunities.

4b. Measures:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

<i>Suppl ID #</i> 3360	Fund 138	Cost Center	Originator: Tawni Helms
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Funding will be secured through new grant opportunities. Those grants will be monitored and administered in compliance with Federal, State and local requirements.

5a. Other Departments/Agencies:

Departments and partnering local governments seeking grant information and support will have access to this resource.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

American Rescue Plan Act Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3441	Fund 138	Cost Center	Originator: Tawni Helms
Year 2	2022	Add'l FTE <input type="checkbox"/>	Priority 1

Name of Request: COVID Transport Van Staffing

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6120	Extra Help	\$62,000
	6410	Fuel	\$2,000
	Request Total		\$64,000

1a. Description of request:

Whatcom County's Emergency Medical Services division has hired temporary extra help Emergency Medical Technicians (EMTs) to support the transportation needs of the Health Department, Hospital, Emergency Medical Services and the Mobile Integrated Health Teams.

will continue providing transportation for COVID suspected patients/clients by providing medical navigation between clinics, homeless camps, diversion centers, hospitals and the Isolation and Quarantine Facilities. This work will continue into 2022.

1b. Primary customers:

Whatcom County citizens.

2. Problem to be solved:

Transportation services for COVID suspected patients/clients is an essential service to ensure safety of our community.

3a. Options / Advantages:

The provision of transportation for COVID suspected patients is an ongoing need and helps to ensure the community's safety.

3b. Cost savings:

4a. Outcomes:

COVID suspected patients will be safely transported to ensure safety for them and the community.

4b. Measures:

Patients will arrive safely to their intended destinations with little impact/exposure to the community.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3512 Fund 138 Cost Center 138100 Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Transfer out to fund dept ARPA expenditures

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351	Operating Transfer Out	\$2,393,971
	Request Total		\$2,393,971

1a. Description of request:

Transfers to fund the following departmental expenditures:
Suppl ID 3379 \$52,979 AS-Finance Grant Compliance Specialist
Suppl ID 3452 \$69,524 County Clerk court COVID related backlog
Suppl ID 3372 \$182,415 District Court COVID related backlog
Suppl ID 3407 \$298,000 Jail COVID testing
Suppl ID 3390 \$379,546 Prosecuting Attorney court COVID related backlog
Suppl ID 3426 \$960,472 Public Defender court COVID related backlog
Suppl ID 3451 \$370,127 Superior Court court COVID related backlog
Suppl ID 3437 \$30,000 Public Defender First Appearances COVID related backlog
Suppl ID 3399 \$50,908 AS-HR Additional HR Rep - COVID related hiring

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3529 Fund 138 Cost Center 138100 Originator: M Caldwell

Year 2 2022 Add'l FTE ☐ Priority 1

Name of Request: 2022 ARPA revenue from U.S. Treasury

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4331.2102	American Rescue Plan Act	(\$22,264,271)
	Request Total		(\$22,264,271)

1a. Description of request:

Budget for second half ARPA payment to be received from U.S. Treasury in June 2022

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

Health

Administration

Suppl ID # 3428

Fund 140

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments - Solid Waste

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	(\$10,140)
	6190	Direct Billing Rate	(\$30,209)
	6195	Direct Billing Offset	\$17,807
	6210	Retirement	(\$5,270)
	6230	Social Security	(\$774)
	6245	Medical Insurance	(\$1,488)
	6255	Other H&W Benefits	(\$109)
	6269	Unemployment-Interfund	(\$26)
	Request Total		(\$30,209)

1a. Description of request:

Record wage and benefit adjustments due to staff turnover and benefit rate changes.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Solid Waste Fund

Supplemental Budget Request

Status: Pending

Health

Environmental Health

Suppl ID # 3457

Fund 140

Cost Center 140100

Originator: Sue Sullivan

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Solid Waste Property Cleanup with Liens

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$50,000
	8351	Operating Transfer Out	\$12,840
	Request Total		\$62,840

1a. Description of request:

The Health Department is requesting expenditure authority for the Whatcom County Solid Waste Program. The purpose of this request is to establish a program for cleanup of properties with egregious solid waste violations on them. The program would be used to abate and clean up violations of health regulations, and the Solid Waste fund would be replenished upon sale of the property and collection of the lien.

1b. Primary customers:

Residents of Whatcom County

2. Problem to be solved:

Solid Waste staff encounter properties where an extreme violation of a public health regulation exists, multiple complainants have contacted the Health Department about the property, and all existing avenues of mitigating the health violation have been exhausted to no effect. Whatcom County Code 24.07, Administrative Notice Proceedings, Civil Penalties and Abatement, states that "the county may institute a civil suit in any court of appropriate jurisdiction for the collection of any civil penalty imposed, for the cost of any work of abatement, and/or for its administrative costs pursuant to this chapter, against any person whose violation or violations of a health regulation resulted in the penalty, the abatement, or the costs. The civil penalty, the cost of abatement, and the administrative costs are also joint and several personal obligations of any person in violation," and, "WCHD shall have a lien for any civil penalty imposed, the cost of any work of abatement, and/or its administrative costs which may be foreclosed and enforced in the civil suit authorized by this chapter against the real property on which the civil penalty was imposed, the administrative cost incurred, or any of the work of abatement was performed."

3a. Options / Advantages:

The Solid Waste program maintains a voucher program to assist homeowners and occupants with property cleanups. This program is very successful when the property owner or occupant is willing to cooperate with the County and work to mitigate the violation. Occasionally, property owners have no interest or motivation to perform a cleanup of their property, and the violation continues to affect the health and well-being of the neighborhood. The County has the option to assess civil penalties on the property owner, but those are unlikely to be paid, as many property owners with solid waste complaints do not have the financial ability to perform a cleanup, let alone pay a civil penalty, and it does not address the problem of the health violation. This program is expected to be used infrequently, in those situations where all other attempts to mitigate the violation have been unsuccessful.

3b. Cost savings:

The lien on the property would enable the County to be reimbursed for expenses incurred.

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Environmental Health

Suppl ID # 3457

Fund 140

Cost Center 140100

Originator: Sue Sullivan

4a. Outcomes:

Properties with long-term solid waste violations would be cleaned up, and the county would lien the property for the entire cost of the cleanup. Properties that are cleaned up would no longer be considered a public health nuisance. Outcomes could include vector remediation, decreased threat of hazardous materials reaching the environment, and decreased threat of exposure to hazardous materials or disease-causing materials, such as used syringes.

4b. Measures:

Closed Solid Waste complaints after a cleanup is performed.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Solid Waste Fund

Supplemental Budget Request

Status: Pending

Health

Environmental Health

Suppl ID # 3458

Fund 140

Cost Center 140201

Originator: Sue Sullivan

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Pt Roberts Trailer

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7350	Buildings & Structures	\$150,000
	8351	Operating Transfer Out	\$38,520
	Request Total		\$188,520

1a. Description of request:

The Health Department is requesting 2022 expenditure authority to purchase a replacement trailer at Point Roberts. The purchase was approved by Council in 2019, but due to time constraints was not completed. This expenditure authority covers purchase and installation of a replacement trailer at the County-owned Point Roberts solid waste transfer station. The budget has been increased from the original budget request due to several factors. The original proposal assumed that the previous owner of the transfer station would be responsible for removal and disposal of the existing trailer, all electrical and plumbing connections, and site prep. The County will accrue the additional expense in the removal. Due to COVID-19, demand for these trailers has risen, which has increased the price, and transportation through Canada is heavily regulated and requires very specific equipment. Due to these reasons, the budget has been increased.

1b. Primary customers:

Residents of Whatcom County

2. Problem to be solved:

Outdated facility requires improvements for safety and efficiency.

3a. Options / Advantages:

Improvements to County owned solid waste handling facilities will make them safer and result in more effective use by the county residents.

3b. Cost savings:

The current County-owned 1961 Point Roberts transfer station mobile office trailer, used by both the public and by the lessee, as leased property, as per leasehold agreement, is unpermitted, dilapidated, unsafe, fully depreciated and contains asbestos. A cost savings exceeding \$100,000 will be realized through the elimination of risk of potential liability and litigation resulting from personal injury to either public users of the facility, or the lessee, due to negligence of the county to maintain the leased property, as per leasehold agreement.

4a. Outcomes:

County owned solid waste handling facilities will be safer and more effectively utilized by the county residents.

4b. Measures:

Improvements completed.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Health

Environmental Health

Suppl ID # 3458

Fund 140

Cost Center 140201

Originator: Sue Sullivan

n/a

6. Funding Source:

Solid Waste Excise Tax

Supplemental Budget Request

Status: Pending

Health

Environmental Health

Suppl ID # 3465

Fund 140

Cost Center 140204

Originator: Sue Sullivan

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Solid Waste Facilities Improvements

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6610	Contractual Services	\$20,000
	8351	Operating Transfer Out	\$5,136
	Request Total		\$25,136

1a. Description of request:

We are requesting 2022 expenditure authority to repaint the floor at the Disposal of Toxics facility. The facility is required to have a chemically resistant floor coating due to Department of Ecology regulations, in order to prevent chemical spills from entering the environment. The floor coating at the facility is over 20 years old and the floor has many cracks and scrapes, and has never been repainted.

1b. Primary customers:

Residents of Whatcom County

2. Problem to be solved:

Moderate Risk Waste facility floor needs maintenance

3a. Options / Advantages:

Improvements to County owned solid waste handling facilities will make them safer and decrease the chance of a chemical spill getting released to the environment.

3b. Cost savings:

A cost savings of \$10,000 or more can be realized by preventing a costly cleanup from a chemical spill reaching the environment.

4a. Outcomes:

County owned solid waste handling facilities will be safer and be brought up to state regulations.

4b. Measures:

Improvements completed.

5a. Other Departments/Agencies:

n/a

5b. Name the person in charge of implementation and what they are responsible for:

n/a

6. Funding Source:

Solid Waste Excise Tax Fund Balance

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3482

Fund 141

Cost Center 14100

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Lodging Tax Commitments

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.3000	Hotel/Motel Tax	(\$400,000)
	6610	Contractual Services	\$728,575
	Request Total		\$328,575

1a. Description of request:

The Lodging Tax Advisory Committee's 2022 funding recommendations were approved through Resolution #2021-037. Funding will be used for awarded applicants working to increase tourism and generate additional tax revenue. This request also reflects increased 2022 revenue projections as a result of economic recovery over and above what was projected during the biennial budget process last summer.

1b. Primary customers:

Whatcom County

2. Problem to be solved:

3a. Options / Advantages:

The lodging tax (convention center tax) is dedicated to tourism related activities.

3b. Cost savings:

n/a

4a. Outcomes:

Tourism will be generated to bring tourists into the community and helping to encourage the economic recovery.

4b. Measures:

Events and festivals will resume in 2022. Applicants are obligated to survey the number of tourists attracted to their respective events/festivals.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Lodging Tax Fund

Supplemental Budget Request

Status: Pending

Prosecuting Attorney

Suppl ID # 3425

Fund 142

Cost Center 14200

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 wage & benefit adjustments- Victim Witness

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$3,376
	6210	Retirement	(\$2,690)
	6230	Social Security	\$259
	6245	Medical Insurance	\$542
	6255	Other H&W Benefits	\$792
	6269	Unemployment-Interfund	\$11
	Request Total		\$2,290

1a. Description of request:

Record changes due to 2% COLA, reduction in retirement rates and changes in other benefit rates

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Victim Witness Fund

Supplemental Budget Request

Status: Pending

Sheriff

Emergency Management

Suppl ID # 3397

Fund 167

Cost Center 1673519001

Originator: John Gargett

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Public Safety Radio System - Annual Expenses 2022

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4337.0002	Other	\$14,400
	6870	Space Rental	\$55,747
	8301.4530	Op Trf In - Non-Departmental	(\$70,147)
	Request Total		\$0

1a. Description of request:

Northwest Law Enforcement Administrative Radio Network (NW LEARN) coordinated the development and maintenance of the public safety radio network serving Island, San Juan, Skagit, and Whatcom Counties for more than thirty years. The Northwest Regional Council dissolved NW LEARN effective 12/31/2020 and transitioned all of the administrative purchasing function related to NW LEARN back to member agencies. Whatcom County Sheriff's Office Division of Emergency Management (WCSD-DEM) now has the responsibility for leasing radio towers and for the repair and maintenance of radio equipment. WCSD-DEM needs budget authority for these expenses.

1b. Primary customers:

Fire, EMS, Law Enforcement, and Public Works agencies in Whatcom County.

2. Problem to be solved:

Having managed the Public Safety Radio System for the first nine months in 2021, WCSD-DEM has been able to assess the tower requirements for radio and microwave support and requires additional budget authority for the necessary tower leases.

Also, the \$14,400 expected from Other Entity Support has not materialized and support from the General Fund is needed to offset this loss of revenue.

3a. Options / Advantages:

There are no other options since the leased radio towers are required for a functional system.

3b. Cost savings:

This necessary expense will provide for a functional Public Safety Radio System in Whatcom County.

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

Multiple jurisdictions, departments, and agencies utilize the Whatcom County Radio System.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

General Fund (Fund 001)

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3293

Fund 326

Cost Center

Originator: Rob Ney

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Courthouse Security Upgrades

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7380	Other Improvements	\$217,000
	Request Total		\$217,000

1a. Description of request:

Facilities Management is requesting a one-time allocation of funds (to be placed in a project based budget) for security improvements to the Whatcom County Courthouse. These improvements are related to vulnerabilities identified with Camp 210, as well as other desired security upgrades and improvements. A list of requests is as follows:

- 1.A panic button system that will immediately lock the Courthouse. This involves installing mechanical equipment in the rotunda as well as the south entrance that would automatically lock all public doors upon request. \$30,000+WSST
 - 2.Additional surveillance cameras to provide full coverage of public areas of the Courthouse (cameras, cabling, programming) . \$40,000+WSST
 - 3.Adding a video surveillance viewing station in Lottie Street for the Sheiff Department, giving the SO the ability to monitor video and of external activity \$5,000+WSST
 - 4.Install additional external camera coverage to the outside of the jail. There are large voids in this coverage. \$10,000+WSST
 - 5.Video Storage upgrades necessary to accommodate the additional camera coverage and storage needs. \$40,000+WSST
 - 6.Facilities staff labor to coordinate the above effort. \$15,000
 - 7.Network upgrades and Siemens programming. \$51,000+WSST
 8. Intercom System to South Entrance for ADA. \$8,000+WSST
- \$199,000+ Washington State Sales Tax, rounded to \$217,000

1b. Primary customers:

Whatcom County employees as well as citizens of Whatcom County entering County Courthouse.

2. Problem to be solved:

During the crisis created by Camp 210, it was quickly identified that the Courthouse should be made more secure with the ability to quickly lock down the facility as well as monitor public activity both on the inside and outside of the Courthouse. Currently, all but one door in the Rotunda must be physically locked by a person and there is not the ability to quickly secure the Courthouse without putting staff in a compromised position.

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3293

Fund 326

Cost Center

Originator: Rob Ney

3a. Options / Advantages:

There are not many other alternatives to this request. The only other option would be to not make the improvements.

The safety and security of our employees as well as the public within the Courthouse is paramount.

3b. Cost savings:

There are not many cost saving and most of the cost of materials are fixed. Facilities will be prudent with procurement to ensure the most economical selections are made that meet the needs of the County.

4a. Outcomes:

Facilities will prioritize the panic button and this improvement will be made as soon as funding is available. The remainder of the items will be performed as staff time allows, which is why we would also be requesting a project based budget for these funds

4b. Measures:

Facilities will implement improvements as soon as possible.

When improvements are installed

5a. Other Departments/Agencies:

The impacts could only be considered advantageous.

All County departments within the Courthouse would receive benefit for the improvements.

5b. Name the person in charge of implementation and what they are responsible for:

Rob Ney, Project & Operations Manager

6. Funding Source:

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3410

Fund 326

Cost Center

Originator: Rob Ney

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Courthouse Signage

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7060	Repairs & Maintenance	\$125,000
	Request Total		\$125,000

1a. Description of request:

The Council passed Resolution 2021 on January 12, 2021 directing staff to provide multi language signage to all public buildings. As this is a quite costly action, and staff wants to test the effectiveness of implemented measures, this ASR is for that signage replacement project within the Courthouse.

Staff proposes two electronic directories and information displays, one at each public entrance on the first floor of the Courthouse. Each electronic device will display office locations for each Department, as well as the Court docket for that day. Each item will be displayed in multiple languages. Additionally, each floor will be provided a new directory at the lobby in addition to all new suite and building signage.

1b. Primary customers:

Any citizen that enters the Courthouse in need of County services.

2. Problem to be solved:

Staff needs to address the Resolution passed by Council. This action will apply to the Courthouse and will be the pilot project for the rest of the County. If effective, similar measures will be requested in the rest of the County buildings.

3a. Options / Advantages:

This is the only measure staff has considered. However, all options will be well thought out and executed. This plan may be fluid based on our findings. However, any action must have budget authority to carry out.

Creating a budget and further developing an action plan, then implementing this plan will comply with Resolution 2021-001.

3b. Cost savings:

Staff will evaluate each alternative and implement a plan that is cost effective at addressing the Council action.

4a. Outcomes:

Multi-lingual signage will be installed to assist citizens that need assistance in languages other than English.

4b. Measures:

The signage will be installed.

Staff will work with Departments to see if there are comments from citizens on this topic.

5a. Other Departments/Agencies:

The impacts could only be considered advantageous.

None.

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3410

Fund 326

Cost Center

Originator: Rob Ney

Rob Ney, Project & Operations Manager

6. Funding Source:

REET I

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3263

Fund 332

Cost Center 332248

Originator: Suzanne Mildner

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: POB County Rural Broadband EDI-2021

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7220	Intergov Subsidies	\$2,000,000
	Request Total		\$2,000,000

1a. Description of request:

This request is for EDI Program funding to support the Port of Bellingham's Rural Broadband construction project

1b. Primary customers:

Unincorporated Whatcom County, as well as the townships of Kendall, Mt. Baker, Deming and Glacier.

2. Problem to be solved:

In May 2021 the County Council approved and EDI Board recommendation to provide additional grant funding in the amount of \$2,000,000 to the Port of Bellingham in support of the rural broadband construction project. This project consists of engineering and construction of an open access dark fiber network; this will provide broadband to our local businesses and community members who currently are unserved and underserved by the current fiber infrastructure.

3a. Options / Advantages:

The EDI Board has determined that this project continues to meet the objectives of the EDI Program project guidelines.

3b. Cost savings:

N/A

4a. Outcomes:

The introduction of rural broadband will make our rural communities more marketable to new businesses and will encourage growth of more home-based businesses. The project includes four routes throughout the county totaling 113.2 miles.

4b. Measures:

Final project report and budget summary.

5a. Other Departments/Agencies:

Project development and success involves many partners such as PUD#1 of Whatcom County, tribes, small cities

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Public Utilities Improvement Fund

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3430

Fund 332

Cost Center 332100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 2022 Public Improvement Fund Tax revenue adjust.

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	4313.1800	Sales & Use Tax-Distresd	(\$1,100,000)
	Request Total		(\$1,100,000)

1a. Description of request:

Adjust 2022 Public Utilities Improvement Fund sales tax revenue based on 2021 projected plus 5% growth

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Sales Tax

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3484

Fund 332

Cost Center 332219

Originator: Tawni Helms

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Economic Development - Tri-Funder Agreement

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7210	Intergov Prof Svcs	\$708,165
	Request Total		\$708,165

1a. Description of request:

Whatcom County, the Port of Bellingham and City of Bellingham have partnered since 2011 to join their funding resources on a multi-year basis to increase efficiencies and coordination of countywide economic development services. Funding supports economic development programs and personnel through the Port of Bellingham to facilitate the creation, retention and promotion of economic development purposes throughout the county.

Funding through Whatcom County has increased to allow for more targeted services utilizing the existing collaboration including the implementation of a countywide strategic plan and a vision for economic development for the entire regions.

1b. Primary customers:

Whatcom County

2. Problem to be solved:

Collaborative efforts create consistency and efficiencies in economic development services. Allow for special projects to be completed for countywide infrastructure and economic development.

3a. Options / Advantages:

Collaborating and joining resources creates continuity and efficiencies in countywide Economic Development

3b. Cost savings:

n/a

4a. Outcomes:

Business retention
Business expansion
Assistance for start-up businesses
Business recruitment
Asset and capacity building
Strategic planning
Special countywide GIS project

4b. Measures:

The Port of Bellingham presents their annual accomplishments to the Bellingham and Whatcom councils each year.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3484

Fund 332

Cost Center 332219

Originator: Tawni Helms

6. Funding Source:

Economic Development Investment (EDI) Program.

Supplemental Budget Request

Status: Pending

Non-Departmental

Suppl ID # 3519	Fund 332	Cost Center 332212	Originator: Tawni Helms
Year 2 2022	Add'l FTE <input type="checkbox"/>	Priority 1	

Name of Request: EDI Housing Affordable (HATWF) Loan Program

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7220	Intergov Subsidies	\$500,000
	Request Total		\$500,000

1a. Description of request:

The Housing Affordable through the Workforce (HATWF) program has been very successful in the last 10 years providing 122 loans for eligible EDI Impact fees on new affordable housing construction. Homebuilders, including Habitat for Humanity of Whatcom County and Whatcom Skagit Housing, applied for funding from the County through the HATWF program. These loans were applied to direct payment to municipalities for eligible impact fees. By the end of the year the program will have a balance of just over \$1,000. This budget supplemental will provide the necessary funding to continue this valuable program.

In addition, over \$375k in loan repayments will be used to establish a revolving loan fund to secure ongoing funding of this program.

1b. Primary customers:

Low to moderate income families in needs of affordable housing.

2. Problem to be solved:

The Housing Affordable through the Workforce (HATWF) program has commitments in 2021 that will draw down the fund to just over \$1,000 by the end of the year. This supplemental will inject funding necessary to continue the loan program. The EDI Board met on September 29, 2021 and made a unanimous recommendation to approve \$500,000 in supplemental funding to the HATWF program to ensure the continuation of loan opportunities for new affordable housing projects.

3a. Options / Advantages:

Ensuing funding is available for new loans will allow the HATWF program to continue in its success in assisting housing agencies.

3b. Cost savings:

4a. Outcomes:

Impact fee loans made through the HATWF program average around \$16,000 each. This supplemental funding will provide the necessary funding to continue the successful HATWF program.

4b. Measures:

Affordable housing will continue to be constructed for eligible families.

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Non-Departmental

Supp'l ID # 3519

Fund 332

Cost Center 332212

Originator: Tawni Helms

Public Utility Imprvoement Fund - EDI

Supplemental Budget Request

Status: Pending

Public Works

Ferry & Docks

Suppl ID # 3377

Fund 444

Cost Center 444520

Originator: Lummi Island Ferry Com

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Sanican Rental and Support at Gooseberry Dock

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6860	Equipment Rental	\$5,500
	8301.108	Operating Transfer In	(\$2,475)
	Request Total		\$3,025

1a. Description of request:

The Ferry Division, on behalf of The Lummi Island Ferry Advisory Committee, requests funds for the rental and maintenance of a handicapped accessible sanican at the Gooseberry Point Terminal.

1b. Primary customers:

Lummi Island Ferry commuters.

2. Problem to be solved:

Currently, there are no year round bathroom facilities at this location.

3a. Options / Advantages:

The Lummi Bay Market opened for business in March of 2020. It is directly across the street from the Gooseberry Point ferry terminal with 6 am to 9 pm operating hours and has restrooms available for paying customers.

Customers historically have used the underside of the dock as a bathroom. This option is not ecologically sound or hygienic and should be discouraged.

3b. Cost savings:

There is no cost savings associated with this request.

4a. Outcomes:

Provide a safe, maintained space for bathroom use as well as a hand washing station that is convenient for ferry traffic.

4b. Measures:

Success will be measured by a decline in public feedback regarding a need for on site bathrooms.

5a. Other Departments/Agencies:

No

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

55% Ferry Fund and 45% Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3257

Fund 501

Cost Center ~~501400~~ 501600

Originator: Andy Bowler/Eric Schlehu

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Expanded Shop Service Writer Office Remodel

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7380	Other Improvements	\$40,000
	Request Total		\$40,000

1a. Description of request:

This request funds a central shop office reconfiguration eliminating the current Shop Service Writer office that due to size no longer meets the needs of this expanded position and installing a pre-built/self contained modular office with windows, door and ceiling/roof. An expanded office is appropriate for this position to provide space for organization and meeting with clients, resulting in better efficiency and improved customer service from the Shop Service Writer.

1b. Primary customers:

All Whatcom County govt departments with fleet vehicles.

2. Problem to be solved:

The Shop Service Writer's office is currently not adequate for the demands of the position. It does not allow for enough usable operating space even with only basic furniture (one desk, one file cabinet and one chair). The lack of space makes communication with ER&R customers challenging and often results in conversations in the busy mechanic bays instead. This remodel allows for better organization, efficiency, communications and customer service to all of ER&R's customers.

3a. Options / Advantages:

The preferred option is to expand/eliminate the current Shop Service Writer office and install a pre-built/self contained modular office with windows, door and ceiling/roof.

This option is the least disruptive, quickest and easiest to implement.

3b. Cost savings:

None.

4a. Outcomes:

When the Shop Service Writer has enough office operating room to conduct their job responsibilities and meet with customers.

4b. Measures:

When completed.

5a. Other Departments/Agencies:

AS-Facilities

5b. Name the person in charge of implementation and what they are responsible for:

AS-Facilities/Rob Ney.

6. Funding Source:

ER&R

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3300

Fund 501

Cost Center 501100

Originator: Eric Schlehuber

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Carryover of 2021 Capital Veh Replacements

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$812,000
	Request Total		\$812,000

1a. Description of request:

To carryover the following 2021 budgeted capital equipment replacements that are not complete:

M&O	Blade truck	#228	\$375,000
M&O	Loader	#335	\$290,000
M&O	Air Compressor	#453	\$30,000
M&O	Sander	#454	\$32,000
Parks	1 ton truck w/ workboxes	#886	\$85,000
Total			\$812,000

1b. Primary customers:

M&O and Parks.

2. Problem to be solved:

Due to staffing shortages, vacancies and COVID related delays over the past year not all of the ER&R capital replacements will be complete before 2021 year end.

3a. Options / Advantages:

Due to vehicle and equipment supply issues including microchips, unavoidable delays have occurred over the past 12-18 months.

3b. Cost savings:

None.

4a. Outcomes:

When eligible vehicles and equipment are replaced per the ER&R replacement schedule.

4b. Measures:

When replaced.

5a. Other Departments/Agencies:

Delayed vehicle replacements for M&O and Parks departments.

5b. Name the person in charge of implementation and what they are responsible for:

AS-Finance.

6. Funding Source:

ER&R- Fund 501.

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3339

Fund 501

Cost Center 501100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: PDS Fire Inspector Vehicle

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$60,000
	8301.001	Operating Transfer In	(\$60,000)
	Request Total		\$0

1a. Description of request:

Companion supplemental to PDS supplemental # 3309 for a replacement fire inspector vehicle.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3359

Fund 501

Cost Center 501600

Originator: Michael Koenen

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Abel Pit salt and sand storage

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7380	Other Improvements	\$45,000
	8301.108	Operating Transfer In	(\$45,000)
	Request Total		\$0

1a. Description of request:

2020 Supplemental Budget Request #1 approved \$90,000 for the construction of covered road salt bunkers at Pt Roberts and Abel pit. This proposal requests a carry over of that budget authority for the Abel pit portion which has not been completed.

The budget will fund additional storage capacity of road salt for the Maintenance and Operations division by constructing a covered storage area at the county owned gravel pit on Abel Rd. The storage area would incorporate a 40' x 50' arch cover on top of a 40' x80' concrete pad.

1b. Primary customers:

Citizens of Whatcom County.

2. Problem to be solved:

In February 2019, the Washington faced a statewide snow and ice storm event that contributed to salt rationing from suppliers and forcing the county to find alternative sources for road salt in order to meet the safety expectations of Whatcom County residents. After that storm we registered with the WA State DES salt procurement program that guarantees us 120% of our average annual use but requires us to purchase at least 80% of our average annual use. This structure would allow us to store salt for extreme snow events and provide us with extra capacity to purchase our contracted amounts during light snow years.

3a. Options / Advantages:

Other options include paying a higher price for salt, if available during a snow emergency. Reducing the amount of treatment on roadways when our supply runs low. Storing salt uncovered which could result in leaching of salt into aquifers.

3b. Cost savings:

Cost savings result from pre-ordering a specified quantity of salt at a predetermined rate.

4a. Outcomes:

An adequate salt supply to meet our storm response level of service.

4b. Measures:

When the motoring public is able to safely navigate Whatcom County roads during snow and ice events.

5a. Other Departments/Agencies:

No.

5b. Name the person in charge of implementation and what they are responsible for:

M&O - Michael Koenen

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3359

Fund 501

Cost Center 501600

Originator: Michael Koenen

6. Funding Source:

Road Fund.

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3417

Fund 501

Cost Center 501100

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: M&O Safety Training Vehicle

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$55,000
	8301.108	Operating Transfer In	(\$55,000)
	Request Total		\$0

1a. Description of request:

Companion supplemental to M&O supplemental #3332 for a Safety Training Vehicle

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3418

Fund 501

Cost Center 501100

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: 3500 Gallon Oil Distributor Companion

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$360,000
	8301.108	Operating Transfer In	(\$360,000)
	Request Total		\$0

1a. Description of request:

Companion supplemental to M&O supplemental #3319 for a 3500 Gallon Oil Distributor.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3420

Fund 501

Cost Center 501100

Originator: Randy Rydel

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Rubber Tired Roller Upgrade Companion

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$90,000
	8301.108	Operating Transfer In	(\$90,000)
	Request Total		\$0

1a. Description of request:

Companion supplemental to M&O supplemental #3341 for a Rubber Tired Roller

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Road Fund

Supplemental Budget Request

Status: Pending

Public Works

Equipment Services

Suppl ID # 3532

Fund 501

Cost Center 501100

Originator: M Caldwell

Year 1 2021

Add'l FTE ☐

Priority 1

Name of Request: Large Prisoner Transport Truck - Companion

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	7410	Equipment-Capital Outlay	\$450,000
	8301	Operating Transfer In	(\$265,267)
	Request Total		\$184,733

1a. Description of request:

Companion supplemental to Corrections suppl #3323 for Large Prisoner Transport Truck replacement. Cost of vehicle will be \$450,000, there is existing equity of \$184,733. Transfer in from Jail Fund will fund \$265,267 additional amount over and above equity.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Equity balance and transfer from Jail Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Administration

Suppl ID # 3358

Fund 507

Cost Center

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Record 2022 wage & benefit adjustments-Admin Serv

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$302,595
	6190	Direct Billing Rate	\$1,843
	6195	Direct Billing Offset	(\$3,261)
	6210	Retirement	(\$102,151)
	6230	Social Security	\$23,786
	6245	Medical Insurance	\$91,007
	6255	Other H&W Benefits	\$39,697
	6259	Worker's Comp-Interfund	\$13,622
	6269	Unemployment-Interfund	\$830
	6610	Contractual Services	(\$168,888)
	Request Total		\$199,080

1a. Description of request:

Record 2% COLA increase from 2021 settlements, reduction in PERS rates, add budget for reinstated frozen positions, add budget for 3 custodians added during 2021 and remove contracted cleaning service budget.

AS Admin increase \$4,880 (COLA)

AS IT \$182,379 increase (COLA plus 2 reinstated positions)

AS Facilities increase wages/benefits \$175,547 (COLA + 3 custodial positions, remove cleaning contract budget)

AS Finance increase \$83,356 (COLA plus 1 reinstated position)

AS HR decrease \$78,194 (senior position turnover and restructure)

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Administration

Suppl ID # 3358

Fund 507

Cost Center

Originator: M Caldwell

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

AS Fund Balance

Supplemental Budget Request

Status: Pending

Administrative Services

Administration

Suppl ID # 3528

Fund 507

Cost Center 507100

Originator: M Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Leave Cash Out Reserve

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6135	Leave Payout	\$100,000
	Request Total		\$100,000

1a. Description of request:

Request to set up leave cash out reserve to fund leave payouts for terminating employees.

1b. Primary customers:

Terminating AS employees

2. Problem to be solved:

Senior staff leave payouts for retiring employees put an extra burden on division budgets and cause unnecessary delays in filling essential positions.

3a. Options / Advantages:

Continue funding all leave payouts from each divisions budget. Setting up a leave payout reserve, such as the General Fund has, will mean divisions do not have to carry the full load of the cash outs and therefore have to delay hiring new staff until such time as there is adequate budget lapse to cover both the new hiree and the leave payouts.

3b. Cost savings:

none

4a. Outcomes:

Faster turnaround on filling vacancies.

4b. Measures:

New personnel will be on board and getting trained.

5a. Other Departments/Agencies:

N/A

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

AS Fund fund balance

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3412

Fund 507

Cost Center 50710

Originator: Rob Ney

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: *Reclassification Facilities Assist to Admn Assist*

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$4,068
	6210	Retirement	\$1,930
	6230	Social Security	\$311
	6255	Other H&W Benefits	\$278
	6269	Unemployment-Interfund	\$11
	Request Total		\$6,598

1a. Description of request:

As Facilities continues to grow in staff and take on more and more challenging projects to make up for deferred maintenance and new development project, the administration of the department is becoming overwhelming in need of additional administrative capacity. The Facilities Assistant (Union) job was reclassified to an Administrative Assistant (Unrepresented).

1b. Primary customers:

The entire staff of Facilities Management, as well as other Departments that receive services from Facilities Management.

2. Problem to be solved:

In order to continue to produce high quality results and manage an ever increasing workload, additional administrative capacity is necessary in Facilities Management. This proposal would elevate an existing staff member to a Facilities Administrative assistant, consistent with other AS Departments. No additional staff is requested, just a reclassification. This reclassification occurred after the 2022 budget was created.

3a. Options / Advantages:

Lessening the workload of Facilities. However, that pathway is not desired or palatable. The many decades of deferred maintenance of County Facilities has necessitated an ambitious response to bring the fleet of buildings into a managed and consistent state of repair.

This will allow the Project and Operations manager to delegate some of the responsibility of administration of Facilities Management, resulting in better and faster results in a hectic and fast paced work environment.

3b. Cost savings:

There is no cost savings option other than not performing the work at this time.

4a. Outcomes:

This reclassification will result in immediate additional responsibilities for the newly appointed Administrative Assistant.

4b. Measures:

Additional work and responsibilities will be performed by the reclassified employee.
Performing additional workload.

5a. Other Departments/Agencies:

Supplemental Budget Request

Status: Pending

Administrative Services

Facilities Management

Suppl ID # 3412

Fund 507

Cost Center 50710

Originator: Rob Ney

This project will have no impact to other staff.

NA

5b. Name the person in charge of implementation and what they are responsible for:

Rob Ney, Project & Operations Manager

6. Funding Source:

Supplemental Budget Request

Status: Pending

Administrative Services

Finance

Suppl ID # 3379

Fund 507

Cost Center 507130

Originator: Marianne Caldwell

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Grant Compliance Specialist

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$72,309
	6210	Retirement	\$8,858
	6230	Social Security	\$5,532
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$2,135
	6259	Worker's Comp-Interfund	\$520
	6269	Unemployment-Interfund	\$189
	8301	Operating Transfer In	(\$52,980)
	Request Total		\$52,979

1a. Description of request:

The Grant Compliance Specialist will assist departments with research and compliance with state and federal grant requirements. Internal controls insuring grant contract compliance are required. The current Finance office staffing is inadequate to provide the required support to departments to ensure that complex grant requirements are adequately researched, communicated and addressed on a timely basis.

1b. Primary customers:

2. Problem to be solved:

Whatcom County does not have the capacity and dedicated expertise necessary to properly manage all aspects of federal and state grants. The number, dollar value and complexity of state and federal grants has increased over the last 5 years. The ARPA funding is subject to the complex federal requirements and will overwhelm our ability to address the issues inherent in federal grants.

3a. Options / Advantages:

Staffing of Administrative Services is lean. If the County wants to take advantage of grants it is necessary to provide staffing to properly administer the grants. If the county has inadequate internal controls over grants it will result in expanded scope of the state audit and increase audit costs.

3b. Cost savings:

4a. Outcomes:

The position will be filled in the 4th quarter of 2021. Beginning in late 2021 grant support will be available to departments

4b. Measures:

5a. Other Departments/Agencies:

Supplemental Budget Request

Status: Pending

Administrative Services

Finance

Suppl ID # 3379

Fund 507

Cost Center 507130

Originator: Marianne Caldwell

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Part ARPA and part Administrative Services Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Finance

Suppl ID # 3481

Fund 507

Cost Center 507130

Originator: Brad Bennett

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Financial Reporting Cloud Subscription

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$30,000
	Request Total		\$30,000

1a. Description of request:

The proposal is to subscribe to a service to improve our financial reporting systems including our Annual Financial Report, Budget and quarterly reports.

1b. Primary customers:

The primary customers of this service are taxpayers, bond holders and internal customers.

2. Problem to be solved:

The problem is in today's environment financial reporting is complex and requires adjustments to our General Ledger specifically for financial reporting. These adjustments make it challenging to use the financial system for management reporting. We need a tool to assist in using the same data for both internal and external reporting.

We are also challenged to generate the Annual Financial Report and the Biennial Budget Document on a timely basis. The current financial reporting systems have integrated tools to generate documents more efficiently.

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3504

Fund 507

Cost Center 507130

Originator: B. Bennett \ P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: *Electronic Timesheets*

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$80,000
	6630	Professional Services	\$50,000
	Request Total		\$130,000

1a. Description of request:

Implement electronic timesheet system.

1b. Primary customers:

County departments

2. Problem to be solved:

Whatcom County has an active project to modernize our JD Edwards Financial System. A consultant (SoftResources) was selected and completed a needs analysis in 2020. Our Project Steering Committee (Finance, HR, IT, Treasurer, Public Works) has endorsed upgrading the JD Edwards Financial System from the World version to the EnterpriseOne version as the most viable and cost effective option at this time. SoftResources helped our committee identify some gaps in this upgrade that could be filled using third party software. A significant current and future gap that has been identified is electronic time and attendance. The majority of employees fill out and print a Microsoft Excel spreadsheet for their timesheet each week. The timesheet is paper based and then scanned and entered into our JD Edwards payroll system. It has been challenging and resource intensive to use our current paperbased system during the COVID-19 global pandemic.

3a. Options / Advantages:

The COVID-19 global pandemic has highlighted the need to continue the move from paperbased to electronic systems with efficient workflows.

3b. Cost savings:

The county would save time by reducing duplicate time entry and having an electronic approval workflow.

4a. Outcomes:

In 2022 we would select, procure, configure, pilot and implement an electronic timekeeping system that would interface with both JD Edwards World (current) and JD Edwards Enterprise One (future).

4b. Measures:

Time studies will be done before and after the implementation of these projects to measure the process and quality improvements.

5a. Other Departments/Agencies:

Yes. Electronic timekeeping will benefit all departments

5b. Name the person in charge of implementation and what they are responsible for:

Electronic Timekeeping - B. Bennett \ M. Keeley \ P. Rice

6. Funding Source:

Administrative Services Fund

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3373

Fund 507

Cost Center 507140

Originator: Melissa Keeley

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Compensation Consultant for Unrepresented Study

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630.911	Professional Services	\$50,000
	Request Total		\$50,000

1a. Description of request:

Funding for an outside consultant to perform a classification and compensation study of benchmark unrepresented positions. Primary objective is to determine if County compensation is externally competitive, internally equitable, and consistent with County objectives. The study would also provide a recommendation on potential changes that may improve on the County's current traditional salary structure and compensation policies. The cost is an estimate and may vary from the budget request after completion of the RFQ process.

1b. Primary customers:

The consultant will evaluate Department Head, Management, Supervisory, Professional and Support positions within the elected and non-elected County departments.

2. Problem to be solved:

The last compensation study was performed in 2016. It is a best practice to periodically review compensation, including a comparable market analysis, to determine appropriateness of County pay and classification structure.

3a. Options / Advantages:

A professional compensation consultant with breadth and depth of experience can provide unique market insights, better maintain focus on the project, provide objective findings, and recommend impartial solutions in a timely manner.

3b. Cost savings:

Fair and competitive compensation results in better recruitment and retention of County employees. The cost of turnover (lost productivity, recruitment, training) is expensive. Additionally, when employees feel valued they are generally more engaged and productive.

4a. Outcomes:

The County will be confident its pay structure is appropriate for unrepresented employees and that current job classifications are properly aligned. Competitive salaries will result in a positive work environment that attracts and retains quality employees.

4b. Measures:

The consultant findings and recommendations will determine if salaries are externally competitive and internally equitable and whether any changes to structure are recommended.

5a. Other Departments/Agencies:

Potential to impact all County departments.

5b. Name the person in charge of implementation and what they are responsible for:

Following a competitive RFQ process and the selection of a consultant, this project will be implemented and monitored by Human Resources with oversight from the Executive's Office.

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3373

Fund 507

Cost Center 507140

Originator: Melissa Keeley

6. Funding Source:

General Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3376

Fund 507

Cost Center 507140

Originator: Melissa Keeley

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: *Reclassification of HR Representative III*

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$3,804
	6210	Retirement	\$489
	6230	Social Security	\$291
	6255	Other H&W Benefits	\$42
	Request Total		\$4,626

1a. Description of request:

This is a request to reclassify an HR Representative III position ID 130 to a Senior HR Representative. Following two leadership retirements in the past year, capacity at the Senior level is needed to act as a lead for HR Reps, to provide technical expertise for complex, cross-organizational personnel actions, to provide project management, and to provide leadership support and coverage for periods when the HR Manager and/or Associate Manager are out of the office or unavailable due to extended meetings and negotiations.

1b. Primary customers:

All County employees and elected officials with special focus to help advise leaders.

2. Problem to be solved:

Two recent leadership retirements created a gap in higher level work capacity.

3a. Options / Advantages:

This option allows the County to retain the required expertise needed through internal promotion of existing staff. The Senior HR Representative classification has been used successfully in HR in the past and allows for better distribution of workload across HR Reps, promotes the capacity for project management and continued process improvement, and provides the necessary technical expertise to help manage employment risk.

3b. Cost savings:

Retaining current staff through promotion offers a large cost savings at a minimal cost compared to recruitment and training of new personnel.

4a. Outcomes:

Immediate ability to provide capacity to perform lead work, technical expertise, and assistance to management.

4b. Measures:

Performance will be monitored and appropriate training provided to ensure success. Generally speaking, promoted employees feel recognized and valued and will be satisfied, engaged, and productive with their work.

5a. Other Departments/Agencies:

Positive impact to a variety of departments through added higher level HR work capacity.

5b. Name the person in charge of implementation and what they are responsible for:

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3376

Fund 507

Cost Center 507140

Originator: Melissa Keeley

6. Funding Source:

Administrative Services Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3399

Fund 507

Cost Center

Originator: Melissa Keeley

Year 2 2022

Add'l FTE ☒

Priority 1

Name of Request: 1 FTE Human Resources Representative II

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$68,668
	6210	Retirement	\$8,413
	6230	Social Security	\$5,254
	6245	Medical Insurance	\$16,416
	6255	Other H&W Benefits	\$2,116
	6259	Worker's Comp-Interfund	\$520
	6269	Unemployment-Interfund	\$179
	6320	Office & Op Supplies	\$250
	8301	Operating Transfer In	(\$50,908)
	Request Total		\$50,908

1a. Description of request:

The Human Resources Division of the Administrative Services Department requests an additional HR Representative II to assist with the increase in workload experienced since the start of the COVID-19 pandemic. For many years, HR has provided services with a small, but mighty team of 7 FTEs. Four of our FTEs are HR Representatives who work as HR Generalists providing a range of HR services for assigned departments. For a short period, an additional FTE was added from 2007-2009 to assist with classification and compensation work. Following the great recession, that FTE was not replaced.

The COVID-19 pandemic caused an increase in workload in the following areas: recruitment and employment for COVID response positions, interpretation and application of new federal and state leave laws and benefits, leave of absence administration due to COVID exposure/illness and school closures, multiple union contract and unrep resolution amendments due to COVID, telework policy revision and administration, and workplace safety compliance. Much of our regular work was pushed to the side to address the immediate needs our departments faced related to COVID.

We anticipate continued additional work in the areas of recruitment for the newly funded ARPA positions and to meet the ongoing needs of the Health Department. HR is also administering the recent vaccine mandates, bargaining impacts with affected unions, processing exemption requests and evaluating reasonable accommodations.

We require additional staffing to assist with the County's DEI initiative and to promote a diverse and inclusive work environment to include potential changes to recruitment, staff training, and leadership orientation.

We also require additional staffing to fulfill the Executive appointed role of the Americans with Disabilities (ADA) Coordinator as set out in County Code 2.86. This role requires ongoing facilitation of an advisory committee to the Executive, the ability to interface with the public on accessibility issues, interaction with

Supplemental Budget Request

Status: Pending

Administrative Services

Human Resources

Suppl ID # 3399

Fund 507

Cost Center

Originator: Melissa Keeley

all departments regarding needed accessibility improvements, and recordkeeping.

The County's labor environment is growing more complex with the addition of three new Union groups since 2019. An additional HR Rep would assist with contract interpretation and administration for their assigned department, take notes during bargaining and provide input on proposal development.

Finally, we expect to take on some large projects with Finance and IT in the near future to modernize our services through new technology which will require dedicated staff to implement.

While the total cost for this additional FTE is \$101,816, due to a retirement and subsequent reorganization, we anticipate a savings of \$51,670 from our 2022 base budget which brings the actual cost of this request to \$50,146.

1b. Primary customers:

HR Reps are assigned specific County departments.

2. Problem to be solved:

Staff resources for additional work due to COVID, DEI initiative, ADA Coordinator appointment, and growing complex labor environment.

3a. Options / Advantages:

It has become evident over the last 18 months that we cannot sustain our current workload with existing staff. We anticipate continued challenges due to COVID and potential expansion and growth from some departments which will need HR services.

3b. Cost savings:

Providing timely and efficient HR services to County departments results in cost savings and minimizes liability.

4a. Outcomes:

Current HR staff burn out will be alleviated, workload will be better balanced, and department satisfaction with HR services will remain high.

4b. Measures:

Evaluation of workload factors and feedback from departments.

5a. Other Departments/Agencies:

Increase in service delivery to County departments.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Administrative Services Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3517

Fund 507

Cost Center 507140

Originator: M. Keeley \ P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Enhanced HR Recruitment Software

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$15,000
	6630	Professional Services	\$30,000
	Request Total		\$45,000

1a. Description of request:

Replace the current HR electronic recruitment system with one that better meets needs.

1b. Primary customers:

All county departments

2. Problem to be solved:

Whatcom County has an active project to modernize our JD Edwards Financial System. A consultant (SoftResources) was selected and completed a needs analysis in 2020. Our Project Steering Committee (Finance, HR, IT, Treasurer, Public Works) has endorsed upgrading the JD Edwards Financial System from the World version to the EnterpriseOne version as the most viable and cost effective option at this time. SoftResources helped our committee identify some gaps in this upgrade that could be filled using third party software. A significant current and future gap that has been identified is talent management, recruitment and training.

Whatcom County currently uses the CivicHR recruitment platform. The system has not been able to meet expanded needs during the global pandemic and the current high level of staffing transitions. The current vendor also does not have additional products or features such as onboarding, training and performance management / evaluation. A new recruitment system is needed that can also be expanded to meet other areas of Human Resources for a more integrated approach.

3a. Options / Advantages:

Continue with the current system that has not been meeting needs.

3b. Cost savings:

The county would save time with a new electronic recruitment system that has more features that would allow additional paperbased and separate electronic systems to be integrated.

4a. Outcomes:

The current HR recruitment system would be replaced in 2022.

4b. Measures:

A new HR recruitment system will be in place with additional features.

5a. Other Departments/Agencies:

HR will collaborate with Finance and IT to integrate the new system into our current environment.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3517

Fund 507

Cost Center 507140

Originator: M. Keeley \ P. Rice

Administrative Services Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3488

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Replace Firewall Intrusion Detection System

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630	Professional Services	\$30,000
	Request Total		\$30,000

1a. Description of request:

Replace the intrusion detection components of the countywide firewall.

1b. Primary customers:

All county departments.

2. Problem to be solved:

Whatcom County purchased our main network firewall in 2017 and its life expectancy is until 2024. However, the intrusion detection additional components of this firewall are end-of-life in March of 2022. It is critical that we keep our network security components current to minimize cyber threats.

3a. Options / Advantages:

The primary alternative is to try to use our intrusion detection system beyond its end-of-life date. We would not be able to get regular threat updates which would quickly degrade the usefulness of the system and expose the county network to cyber threats.

3b. Cost savings:

This request is the lifecycle replacement of existing critical security infrastructure that helps to minimize the impact of cyber threats.

4a. Outcomes:

Our vendor would assist with the installation and configuration of a new intrusion detection system.

4b. Measures:

A new intrusion detection system would be fully integrated with our firewall and actively listening for and preventing unwanted cyber intrusions.

5a. Other Departments/Agencies:

The intrusion detection system installation would be done outside of normal business hours to minimize impact to county operations.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Administrative Services Fund
or
ARPA (Cyber Security)

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3490

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: COVID Related Video Conferencing / Remote Access

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$30,000
	Request Total		\$30,000

1a. Description of request:

Continue subscriptions of video conferencing and remote access licenses for departments that were setup in 2020 in response to the COVID-19 global pandemic.

1b. Primary customers:

All county departments.

2. Problem to be solved:

In 2020 in response to the COVID-19 global pandemic, Whatcom County made 1-year subscription purchases of online video conferencing systems such as Zoom and GoToMeeting for remote meetings and court proceedings. GoToMyPC 1-year subscriptions to support remote work for employees were also purchased. These remote online tool subscriptions were funded one-time from the Coronavirus Aid, Relief and Economic Security (CARES) Act. Departments continue to need to use these online tools in response to the evolving pandemic and new funding is needed.

3a. Options / Advantages:

The primary option is to discontinue the use of a high level of video conferencing and remote access tools. This would be counter productive given how effective Whatcom County departments have been in using these tools to continue operations during the global pandemic.

3b. Cost savings:

Video conferencing is a necessity to efficiently continue county operations during the ever evolving COVID-19 global pandemic.

4a. Outcomes:

County departments would continue to have video conferencing tools needed to continue operations during the COVID-19 global pandemic.

4b. Measures:

County Information Technology (IT) would have the funding to continue video conferencing and other remote tool subscriptions in use by all county departments.

5a. Other Departments/Agencies:

All county departments will be using these video conferencing licenses.

5b. Name the person in charge of implementation and what they are responsible for:

County IT partners with our IT contacts in each department to setup and use these video conferencing licenses.

6. Funding Source:

ARPA

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3491

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority

1

Name of Request: Multi-Factor Authentication for Remote Access

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$16,000
	Request Total		\$16,000

1a. Description of request:

Subscribe to an online service that provides multi-factor authentication for employees and vendors to remotely access our network.

1b. Primary customers:

Employees and vendors that currently remotely access our network.

2. Problem to be solved:

Remote access to the county data network exposes the county to cyber threats. Requiring multi-factor authentication for employees and vendors in order to connect to the county network increases overall security. In order to qualify for cybersecurity insurance, providers are now requiring that multi-factor authentication be in place for all remote access to our network.

3a. Options / Advantages:

Continuing to allow remote access to our network without using multi-factor authentication increases security risks and also jeopardizes the county's ability to qualify for cybersecurity insurance.

3b. Cost savings:

Multi-factor authentication would increase our security and reduce the risk and costs associated with a catastrophic cyber event.

4a. Outcomes:

Whatcom County Information Technology (IT) is working on a contract using 2021 base budget funding to configure our current firewall and directory services to use multi-factor authentication. These licenses would allow IT to roll out this important security measure to all 300 employees and vendors that remotely access our network in 1Q2022.

4b. Measures:

All employees and vendors that remotely access our network would be using multi-factor authentication.

5a. Other Departments/Agencies:

Current employees and vendors that are remotely accessing our network would need to be setup and trained on the new way to remotely access our network.

5b. Name the person in charge of implementation and what they are responsible for:

N/A

6. Funding Source:

Administrative Services Fund
or
ARPA (Cyber Security)

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3492

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Website Platform Upgrade to Civic Evolve Additions

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630	Professional Services	\$41,000
	Request Total		\$41,000

1a. Description of request:

Add \$41,000 in funds to the \$80,000 budgeted in 2022 for the website platform upgrade and redesign.

1b. Primary customers:

All county departments and citizens.

2. Problem to be solved:

In 2020, County Council approved \$80,000 in one-time funding (ASR#2021-6236) in 2022 for a platform upgrade and redesign of our public website. Our team has worked extensively with our vendor (CivicPlus) this year to further refine the project. We have learned that we need additional resources since we have a higher page count to migrate, need more implementation services and a project contingency of 10% to be successful.

3a. Options / Advantages:

Start the project with the initial \$80,000 in funding. This funding will not be enough to migrate all of our existing pages so a tremendous amount of limited IT and department resources will be needed which would limit the success of the project. Our public website is a critical tool for communicating and engaging with our citizens. Providing additional funding will allow our team to successfully complete the project.

3b. Cost savings:

A new website platform and design will allow IT and department content editors to provide more services more efficiently to citizens via our public website.

4a. Outcomes:

It is anticipated that our public website would be migrated to the CivicPlus Engage Evolve platform and redesigned by the end of 2022.

4b. Measures:

Our public website will undergo the first redesign since 2015, the site will be on a new platform and department pages will be successfully migrated to the site and fully operational.

5a. Other Departments/Agencies:

Yes. All departments will need to be involved to assist the design and content changes to their particular web pages.

5b. Name the person in charge of implementation and what they are responsible for:

P. Rice \ J. Pearson (IT) and A. Haines (Executive's Office) will be responsible for the overall implementation.

6. Funding Source:

Administrative Services Fund

Tuesday, October 26, 2021

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3493

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Website Accessibility Enhancements

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$12,000
	Request Total		\$12,000

1a. Description of request:

Continue to improve our public website's accessibility for all of our citizens by adding an dynamic overlay or comparable tool.

1b. Primary customers:

All citizens.

2. Problem to be solved:

In 2019, Whatcom County implemented a service by SiteImprove for website metrics and accessibility. SiteImprove provides robust website metrics and it also scans and identifies accessibility issues for county department content editors to address. It is important for the underlying accessibility issues to be resolved, but it takes time. We need a separate overlay service or comparable tool that dynamically masks website accessibility issues almost immediately.

3a. Options / Advantages:

Continue to use our current accessibility tools. Adding a dynamic overlay to our public website will improve accessibility while our department content editors resolve the underlying issues.

3b. Cost savings:

Citizen accessibility to our website will increase and the time to find information will decrease.

4a. Outcomes:

A dynamic overlay service or comparable tool will be added to our public website in 2022 to increase accessibility.

4b. Measures:

A new accessibility service will be added to our public website.

5a. Other Departments/Agencies:

All county departments will have improved accessibility to their web pages.

5b. Name the person in charge of implementation and what they are responsible for:

A. Haines from Executive's Office will be instrumental in the implementation.
County IT and our vendor will partner with department website content editors to roll out new accessibility features.

6. Funding Source:

Administrative Services Fund

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3494

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: COVID Related Laserfiche Forms License Additions

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$10,000
	Request Total		\$10,000

1a. Description of request:

Purchase Laserfiche Community User subscription licensing block of 500 licenses to allow departments to electronically authenticate and transmit accounts payable batches to the County Finance department.

1b. Primary customers:

All county departments.

2. Problem to be solved:

In 2020, at the onset of the COVID-19 global pandemic, County Finance quickly implemented a system for departments to sign, print, scan and electronically transmit accounts payable batches. This is a manually intensive process for Finance, but it transitioned the accounts payable process to go from paper to electronic. County Information Technology (IT) and Finance have completed a project to use our existing Laserfiche document imaging system to electronically authenticate, transmit, index and store an accounts payable batch to Finance. To complete the project, we need the additional Laserfiche licenses so that all of the accounts payable approvers can use the new process.

3a. Options / Advantages:

Continue to use the current system, but it has become too time intensive for County Finance.

3b. Cost savings:

This is a key mitigation strategy to allow remote or hybrid employees during the global pandemic to continue to process accounts payable.

4a. Outcomes:

In 1Q2022 or sooner, the new license subscription will be added to our Laserfiche system. Finance and IT will then roll out the improved process to electronically authenticate, transmit, index and store accounts payable batches electronically.

4b. Measures:

All departments will be submitting their accounts payable batches using the new system. Limited Finance staff will spend less time manually organizing the current electronic files coming in via e-mail so they have more time to review and work with departments to resolve payment issues.

5a. Other Departments/Agencies:

All county departments will be using the new process following a pilot implementation.

5b. Name the person in charge of implementation and what they are responsible for:

County Finance and IT are working collaboratively on this project.

6. Funding Source:

ARPA for an initial funding period and then the ongoing costs will need to be funded from a new source.

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3510

Fund 507

Cost Center 507111

Originator: P. Rice

Year 2 2022

Add'l FTE ☐

Priority 1

Name of Request: Website Online Forms Automation

X

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6625	Software Maint Contracts	\$19,000
	Request Total		\$19,000

1a. Description of request:

Add the new CivicPlus CivicOptimize module to our web platform to enhance online services for citizens

1b. Primary customers:

All county departments and citizens.

2. Problem to be solved:

The Whatcom County CivicPlus public website has basic forms with limited forms intelligence and workflow. The global pandemic has highlighted the importance of providing citizens with increased online tools to access government services. The CivicPlus CivicOptimize module would allow the county to create intelligent web apps, forms and electronic workflows to provide and streamline digital services. Electronic workflows would allow citizens to access their applications each step of the way, simplify multi-department approval processes and setup conditional routing and notifications. Over 160 government templates can be used to setup out-of-box automated workflows with minimal configuration. Low code development tools are available to integrate with other business systems.

3a. Options / Advantages:

Our current and planned CivicPlus web platform will provide basic forms with limited workflows. We could continue the status quo, but citizens and departments need increased online services to meet needs.

3b. Cost savings:

In general, time will be saved by departments and citizens by having more intelligent forms and electronic workflows.

4a. Outcomes:

The CivicOptimize module would be first implemented inconjunction with our CivicPlus upgrade to the CivicEngage Evolve platform in late 2022. During this upgrade, County IT would start by using CivicOptimize to improve the forms that we are currently using. Overtime we would add intelligent forms with automated workflows across departments.

4b. Measures:

The county will have more intelligent forms and automated workflows available to citizens, business partners and employees.

5a. Other Departments/Agencies:

Over time, County IT would work with web contacts in each department to review, prioritize and enhance their web pages with improved digital services.

5b. Name the person in charge of implementation and what they are responsible for:

6. Funding Source:

Supplemental Budget Request

Status: Pending

Administrative Services

Information Technology

Suppl ID # 3510

Fund 507

Cost Center 507111

Originator: P. Rice

Administrative Services Fund

or

ARPA for an initial funding period and then the ongoing costs will need to be funded from a new source.



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-630

File ID:	AB2021-630	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Authorizing the Levy of Taxes for Conservation Futures Purposes for 2022

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Pursuant to Home Rule Charter Section 6.10, this ordinance requests authorization to levy taxes for Conservation Futures purposes in 2022.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance

PROPOSED BY: Executive
INTRODUCTION DATE: November 09, 2021

ORDINANCE NO. _____
ORDINANCE AUTHORIZING THE LEVY OF TAXES
FOR CONSERVATION FUTURES PURPOSES FOR 2022

WHEREAS, pursuant to Home Rule Charter Section 6.10 the County Executive is required to submit for Council consideration a budget and proposed tax and revenue ordinances necessary to raise sufficient revenues to balance the budget; and,

WHEREAS, the County Council has approved a budget for the 2021-2022 biennium, including all sources of revenues and anticipated expenditures on November 24, 2020; and,

WHEREAS, the County Council has determined it is not necessary to increase the Conservation Futures Fund property tax levy for 2022; and,

WHEREAS, the County Council held a public hearing regarding the county biennial budget which included property taxes, and other revenues;

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Whatcom County Council that amounts collected through the County Conservation Futures levy shall be limited to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property. A property tax increase, in addition to the amount resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, is hereby authorized for the 2022 levy in the amount of \$0, which is a percentage increase of 0% from the previous year.

ADOPTED this ____ day of _____, 2021

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() APPROVED () NOT APPROVED

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Singh Sidhu Executive

Date:



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-632

File ID:	AB2021-632	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Authorizing the Levy of 2022 Property Taxes for County Road Purposes

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Pursuant to Home Rule Charter Section 6.10, requests authorization to levy property taxes for county road purposes in 2022.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance

ORDINANCE NO. _____
ORDINANCE AUTHORIZING THE LEVY OF 2022
PROPERTY TAXES FOR COUNTY ROAD PURPOSES

WHEREAS, pursuant to Home Rule Charter Section 6.10 the County Executive is required to submit for Council consideration proposed tax and revenue ordinances necessary to raise sufficient revenues to balance the Budget; and,

WHEREAS, the County Council has approved a budget for the 2021-2022 biennium, including all sources of revenues and anticipated expenditures on November 24, 2020; and,

WHEREAS, the County Council, in the course of considering the mid-biennium review and modification has reviewed all sources of revenue and examined all anticipated expenses and obligations; and,

WHEREAS, the County Council has determined it is not necessary to increase the Road Fund property tax levy for 2022; and,

WHEREAS, the County Council has held public hearings regarding the county biennial budget and mid-biennium review, which included property tax revenues, and other revenues;

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Whatcom County Council that the amounts collected through the County Road levy shall be limited to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property. A property tax increase in addition to the amount resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property is hereby authorized for the 2022 levy in the amount of \$0, which is a percentage increase of 0% from the previous year.

BE IT FURTHER ORDAINED AND ESTABLISHED, that the Whatcom County Council does hereby authorize diverting \$806,530 of the County Road District levy for the budget year 2022 to the General Fund. Diverted County Road Taxes are to be used for traffic law enforcement in the unincorporated areas of Whatcom County.

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() APPROVED () NOT APPROVED

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Singh Sidhu, Executive

Date: _____



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-633

File ID:	AB2021-633	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Authorizing the Levy of Taxes for County and State Purposes in Whatcom County, Washington, for the Year of 2022

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Pursuant to Home Rule Charter Section 6.10, requests authorization to levy taxes in the General Fund to fund essential county services.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance, Exhibit B

ORDINANCE NO. _____

**ORDINANCE AUTHORIZING THE LEVY OF TAXES
FOR COUNTY AND STATE PURPOSES
IN WHATCOM COUNTY, WASHINGTON,
FOR THE YEAR OF 2022**

WHEREAS, pursuant to Home Rule Charter Section 6.10 the County Executive is required to submit for Council consideration a budget and proposed tax and revenue ordinances necessary to raise sufficient revenues to balance the budget; and,

WHEREAS, the County Council has approved a budget for the 2021-2022 biennium, including all sources of revenues and anticipated expenditures on November 24, 2020; and,

WHEREAS, the County Council, in the course of considering the mid-biennium review and modification has reviewed all sources of revenue and examined all anticipated expenses and obligations; and,

WHEREAS, the County Council has determined it is not necessary to increase the General Fund property tax levy for 2022 to fund essential county services; and,

WHEREAS, the County Council has held public hearings regarding the county biennial budget and mid-biennium review, which included property tax revenues, and other revenues;

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Whatcom County Council:

- (A) The property taxes for Whatcom County are hereby levied and are to be charged to the assessment and tax rolls of Whatcom County; and,
- (B) Property taxes are levied in 2021 for collection in 2022; and,
- (C) The amounts collected through the County general levy shall be limited to the amount of 2021 taxes increased for the addition of new construction and improvements to property and any increase in the value of state assessed property; and,

(D) Because the State of Washington is currently unable to provide the figures and documentation necessary to establish fixed levy rates, as these figures do become available from the state, levies shall be fixed per "Exhibit A" which shall be prepared by the County Assessor, and attached and incorporated herein by reference.

BE IT FURTHER ORDAINED, that the taxes to be levied against parcels of property within the Diking Districts, Drainage Districts, and Drainage Improvement Districts are to be credited to the individual maintenance funds for the year 2022, and the amounts to be apportioned to the original assessments for construction in said districts are as follows per "Exhibit B" attached hereto and incorporated herein by reference.

BE IT FURTHER ORDAINED, that if the Washington State Legislature changes any laws affecting levies contained herein, and the Prosecuting Attorney's Office concurs, the Whatcom County administration will change such levies accordingly.

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() APPROVED () NOT APPROVED

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Singh Sidhu , Executive

Date:_____

**EXHIBIT A WILL BE
AVAILABLE AFTER THE
FIRST OF THE YEAR 2022**

BUDGET FOR 2022**District Name:** **Butler Ditch District****As of December 31, 2020**

Cash in Account	<u>\$17,212</u>	\$20,116
WCIP Investments	<u>\$73</u>	
Uncollected Assessments (including 2021 and past years)	<u>\$2,831</u>	
Actual 2021 expenditures	<u>\$75</u>	\$2,465
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$2,390</u>	
Projected 2022 beginning balance		<u><u>\$17,651</u></u>

2022 Budget**Revenues**

Assessments	<u>\$6,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$6,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$23,651</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated		
Maintenance Expenses	\$7,000	
New Project and Unforeseen Expenses	<u>\$16,151</u>	
Total Expenditures		<u><u>\$23,651</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$6,000.00**

BUDGET FOR 2022**District Name: Consolidated Drainage Improvement District #1 / 623****As of December 31, 2020**

Cash in Account	<u>\$19,737</u>	}	\$38,587
WCIP Investments	<u>\$17,479</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$1,372</u>		
Actual 2021 expenditures	<u>\$16,511</u>	}	\$16,511
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			\$22,076

2022 Budget**Revenues**

Assessments	<u>\$4,000</u>	
Other Revenue	<u>\$1,500</u>	
Total 2022 Revenues	<u>\$5,500</u>	
Total available for 2022 Budget Allocation		<u><u>\$27,576</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$4,500	
New Project and Unforeseen Expenses	<u>\$22,576</u>	
Total Expenditures		<u><u>\$27,576</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$4,000.00**

BUDGET FOR 2022**District Name:** Consolidated Drainage Improvement District 20 / 631**As of December 31, 2020**

Cash in Account	<u>\$22,760</u>	\$46,546
WCIP Investments	<u>\$21,598</u>	
Uncollected Assessments (including 2021 and past years)	<u>\$2,188</u>	
Actual 2021 expenditures	<u>\$1,045</u>	\$3,045
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$2,000</u>	
Projected 2022 beginning balance		<u><u>\$43,501</u></u>

2022 Budget**Revenues**

Assessments	<u>\$6,000</u>	
Other Revenue	<u>\$252</u>	
Total 2022 Revenues	<u>\$6,252</u>	
Total available for 2022 Budget Allocation		<u><u>\$49,753</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$6,900	
New Project and Unforeseen Expenses	<u>\$42,353</u>	
Total Expenditures		<u><u>\$0</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$6,000.00

BUDGET FOR 2022**District Name: Consolidated Drainage Improvement District 31 / 634****As of December 31, 2020**

Cash in Account	<u>\$8,086</u>	}	\$43,887
WCIP Investments	<u>\$29,176</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$6,625</u>		
Actual 2021 expenditures	<u>\$6,260</u>	}	\$10,260
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$4,000</u>		
Projected 2022 beginning balance			<u>\$33,627</u>

2022 Budget**Revenues**

Assessments	<u>\$15,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$15,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$48,627</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$9,000	
New Project and Unforeseen Expenses	<u>\$39,127</u>	
Total Expenditures		<u><u>\$48,627</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$15,000.00

BUDGET FOR 2022**District Name:** Consolidated Drainage Improvement District 21 / 632**As of December 31, 2020**

Cash in Account	<u>\$72,791</u>	}	\$79,053
WCIP Investments	<u>\$87</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$6,175</u>		
Actual 2021 expenditures	<u>\$3,141</u>	}	\$9,141
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$6,000</u>		
Projected 2022 beginning balance			<u>\$69,912</u>

2022 Budget**Revenues**

Assessments	<u>\$12,500</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$12,500</u>		
Total available for 2022 Budget Allocation			<u><u>\$82,412</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$500		
Projected Work Plan/Estimated Maintenance Expenses	\$14,500		
New Project and Unforeseen Expenses	<u>\$67,412</u>		
Total Expenditures			<u><u>\$82,412</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$12,500.00

BUDGET FOR 2022**District Name: Deming Diking District 2 / 637****As of December 31, 2020**

Cash in Account	<u>\$11,732</u>	}	\$18,141
WCIP Investments	<u>\$90</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$6,319</u>		
Actual 2021 expenditures	<u>\$17,590</u>	}	\$17,590
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			\$551

2022 Budget**Revenues**

Assessments	<u>\$12,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$12,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$12,551</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$5,000	
New Project and Unforeseen Expenses	<u>\$7,051</u>	
Total Expenditures		<u><u>\$12,551</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$12,000.00**

BUDGET FOR 2022**District Name: Diking District 1 / 636****As of December 31, 2020**

Cash in Account	<u>\$39,111</u>	}	\$69,622
WCIP Investments	<u>\$511</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$30,000</u>		
Actual 2021 expenditures	<u>\$17,916</u>	}	\$17,916
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			<u>\$51,705</u>

2022 Budget**Revenues**

Assessments	<u>\$60,000</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$60,000</u>		
Total available for 2022 Budget Allocation			<u><u>\$111,705</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$500		
Projected Work Plan/Estimated Maintenance Expenses	\$19,000		
New Project and Unforeseen Expenses	<u>\$92,205</u>		
Total Expenditures			<u><u>\$111,705</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$60,000.00**

BUDGET FOR 2022**District Name: Diking District 3 / 638****As of December 31, 2020**

Cash in Account	<u>\$44,620</u>	}	\$50,451
WCIP Investments	<u>\$389</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$5,442</u>		
Actual 2021 expenditures	<u>\$225</u>	}	\$225
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			<u>\$50,226</u>

2022 Budget**Revenues**

Assessments	<u>\$12,000</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$12,000</u>		
Total available for 2022 Budget Allocation			<u><u>\$62,226</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$500		
Projected Work Plan/Estimated			
Maintenance Expenses	\$11,500		
New Project and Unforeseen Expenses	<u>\$50,226</u>		
Total Expenditures			<u><u>\$62,226</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$12,000.00

BUDGET FOR 2022**District Name: Diking District 4 / 639****As of December 31, 2020**

Cash in Account	<u>\$61,638</u>	}	\$83,363
WCIP Investments	<u>\$12,597</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$9,129</u>		
Actual 2021 expenditures	<u>\$250</u>	}	\$13,583
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$13,333</u>		
Projected 2022 beginning balance			<u>\$69,780</u>

2022 Budget**Revenues**

Assessments	<u>\$25,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$25,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$94,780</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$15,500	
New Project and Unforeseen Expenses	<u>\$78,780</u>	
Total Expenditures		<u><u>\$94,780</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$25,000.00

BUDGET FOR 2022**District Name: Drainage District 2 \ 624****As of December 31, 2020**

Cash in Account	<u>\$20,748</u>	}	\$25,504
WCIP Investments	<u>\$3,457</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$1,300</u>		
Actual 2021 expenditures	<u>\$718</u>	}	\$718
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			<u>\$24,787</u>

2022 Budget**Revenues**

Assessments	<u>\$3,000</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$3,000</u>		
Total available for 2022 Budget Allocation			<u><u>\$27,787</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$500		
Projected Work Plan/Estimated			
Maintenance Expenses	\$2,500		
New Project and Unforeseen Expenses	<u>\$24,787</u>		
Total Expenditures			<u><u>\$27,787</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$3,000.00

BUDGET FOR 2022**District Name: Drainage District 3 / 625****As of December 31, 2020**

Cash in Account	<u>\$40,699</u>	}	\$46,777
WCIP Investments	<u>\$1,548</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$4,530</u>		
Actual 2021 expenditures	<u>\$75</u>	}	\$250
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$175</u>		
Projected 2022 beginning balance			<u>\$46,527</u>

2022 Budget**Revenues**

Assessments	<u>\$5,000</u>		
Other Revenue	<u>\$500</u>		
Total 2022 Revenues	<u>\$5,500</u>		
Total available for 2022 Budget Allocation			<u><u>\$52,027</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$500		
Projected Work Plan/Estimated			
Maintenance Expenses	\$26,500		
New Project and Unforeseen Expenses	<u>\$25,027</u>		
Total Expenditures			<u><u>\$52,027</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$5,000.00

BUDGET FOR 2022**District Name: Drainage District 6 / 627****As of December 31, 2020**

Cash in Account	<u>\$5,661</u>	\$27,290
WCIP Investments	<u>\$19,317</u>	
Uncollected Assessments (including 2021 and past years)	<u>\$2,312</u>	
Actual 2021 expenditures	<u>\$687</u>	\$687
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>	
Projected 2022 beginning balance		<u><u>\$26,603</u></u>

2022 Budget**Revenues**

Assessments	<u>\$3,500</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$3,500</u>	
Total available for 2022 Budget Allocation		<u><u>\$30,103</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$525	
Projected Work Plan/Estimated Maintenance Expenses	\$1,000	
New Project and Unforeseen Expenses	<u>\$28,578</u>	
Total Expenditures		<u><u>\$30,103</u></u>
Projected 2022 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$3,500.00**

BUDGET FOR 2022**District Name: Drainage Improvement District 7 / 628****As of December 31, 2020**

Cash in Account	<u>\$18,016</u>	}	\$30,756
WCIP Investments	<u>\$3,879</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$8,861</u>		
Actual 2021 expenditures	<u>\$1,208</u>	}	\$9,485
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$8,277</u>		
Projected 2022 beginning balance			<u>\$21,271</u>

2022 Budget**Revenues**

Assessments	<u>\$20,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$20,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$41,271</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$29,500	
New Project and Unforeseen Expenses	<u>\$11,271</u>	
Total Expenditures		<u><u>\$41,271</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$20,000.00**

BUDGET FOR 2022**District Name: Drainage Improvement District 15 / 629****As of December 31, 2020**

Cash in Account	<u>\$12,978</u>	}	\$30,805
WCIP Investments	<u>\$10,825</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$7,002</u>		
Actual 2021 expenditures	<u>\$1,208</u>	}	\$9,327
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$8,119</u>		
Projected 2022 beginning balance			\$21,478

2022 Budget**Revenues**

Assessments	<u>\$20,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$20,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$41,478</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated Maintenance Expenses	\$25,500	
New Project and Unforeseen Expenses	<u>\$15,478</u>	
Total Expenditures		<u><u>\$41,478</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$20,000.00

BUDGET FOR 2022**District Name: Drainage Improvement District 17 / 630****As of December 31, 2020**

Cash in Account	<u>\$16,987</u>	\$19,598
WCIP Investments	<u>\$1,138</u>	
Uncollected Assessments (including 2021 and past years)	<u>\$1,472</u>	
Actual 2021 expenditures	<u>\$175</u>	\$564
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$389</u>	
Projected 2022 beginning balance		<u><u>\$19,034</u></u>

2022 Budget**Revenues**

Assessments	<u>\$3,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$3,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$22,034</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$175	
Projected Work Plan/Estimated Maintenance Expenses	\$2,500	
New Project and Unforeseen Expenses	<u>\$19,359</u>	
Total Expenditures		<u><u>\$22,034</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$3,000.00**

BUDGET FOR 2022**District Name: Drainage Improvement District 30 / 633****As of December 31, 2020**

Cash in Account	<u>\$3,428</u>	}	\$6,442
WCIP Investments	<u>\$1,857</u>		
Uncollected Assessments <i>(including 2021 and past years)</i>	<u>\$1,156</u>		
Actual 2021 expenditures	<u>\$2,132</u>	}	\$2,132
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			<u>\$4,309</u>

2022 Budget**Revenues**

Assessments	<u>\$3,000</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$3,000</u>		
Total available for 2022 Budget Allocation			<u><u>\$7,309</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$175		
Projected Work Plan/Estimated			
Maintenance Expenses	\$2,500		
New Project and Unforeseen Expenses	<u>\$4,634</u>		
Total Expenditures			<u><u>\$7,309</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$3,000.00**

BUDGET FOR 2022**District Name: Drainage Improvement District 30A / 635****As of December 31, 2020**

Cash in Account	<u>\$3,188</u>	}	\$3,812
WCIP Investments	<u>\$221</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$404</u>		
Actual 2021 expenditures	<u>\$175</u>	}	\$175
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			<u>\$3,637</u>

2022 Budget**Revenues**

Assessments	<u>\$1,000</u>		
Other Revenue	<u>\$0</u>		
Total 2022 Revenues	<u>\$1,000</u>		
Total available for 2022 Budget Allocation			<u><u>\$4,637</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>			

Expenditures:

Admin	\$175		
Projected Work Plan/Estimated			
Maintenance Expenses	\$0		
New Project and Unforeseen Expenses	<u>\$4,462</u>		
Total Expenditures			<u><u>\$4,637</u></u>
Projected 2021 Ending Balance			<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$1,000.00

BUDGET FOR 2022**District Name: Drainage District 5 / 626****As of December 31, 2020**

Cash in Account	<u>\$28,978</u>	}	\$54,428
WCIP Investments	<u>\$16,847</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$8,603</u>		
Actual 2021 expenditures	<u>\$20,592</u>	}	\$21,242
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$650</u>		
Projected 2022 beginning balance			\$33,186

2022 Budget**Revenues**

Assessments	<u>\$20,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$20,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$53,186</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$525	
Projected Work Plan/Estimated Maintenance Expenses	\$31,475	
New Project and Unforeseen Expenses	<u>\$21,186</u>	
Total Expenditures		<u><u>\$53,186</u></u>
Projected 2021 Ending Balance		<u><u>\$0</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022\$20,000.00

BUDGET FOR 2022**District Name: Macaulay Creek Flood Control District / 641****As of December 31, 2020**

Cash in Account	<u>\$22,897</u>	}	\$30,624
WCIP Investments	<u>\$33</u>		
Uncollected Assessments (including 2021 and past years)	<u>\$7,693</u>		
Actual 2021 expenditures	<u>\$15,432</u>	}	\$15,432
Less any Estimated 2021 Expenditures (any outstanding invoices)	<u>\$0</u>		
Projected 2022 beginning balance			\$15,192

2022 Budget**Revenues**

Assessments	<u>\$10,000</u>	
Other Revenue	<u>\$0</u>	
Total 2022 Revenues	<u>\$10,000</u>	
Total available for 2022 Budget Allocation		<u><u>\$25,192</u></u>
<i>(2022 projected beginning balance + 2022 revenue)</i>		

Expenditures:

Admin	\$500	
Projected Work Plan/Estimated		
Maintenance Expenses	\$24,500	
New Project and Unforeseen Expenses	<u>\$192</u>	
Total Expenditures		<u><u>\$192</u></u>
Projected 2021 Ending Balance		<u><u>\$25,192</u></u>

RECOMMENDED ASSESSMENT TO BE LEVIED FOR 2022**\$10,000.00**



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-634

File ID:	AB2021-634	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Ordinance Limiting the 2022 General Fund Property Tax Levy

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Requests authorization to limit the County general levy to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Proposed Ordinance

PROPOSED BY: Executive
INTRODUCTION DATE: November 09, 2021

ORDINANCE NO. _____

**ORDINANCE LIMITING THE 2022
GENERAL FUND PROPERTY TAX LEVY**

WHEREAS, the County Council has approved a budget for the 2021-2022 biennium, including all sources of revenues and anticipated expenditures on November 24, 2020; and

WHEREAS, the County Council, in the course of considering the mid-biennium review and modification has reviewed all sources of revenue and examined all anticipated expenses and obligations; and,

WHEREAS, the County Council has determined it is not necessary to increase the General Fund property tax levy for 2022; and,

WHEREAS, the County Council has held public hearings regarding the county biennial budget and mid-biennium review, which included property tax revenues, and other revenues;

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Whatcom County Council that amounts collected through the County general levy shall be limited to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property. A property tax increase in addition to the amount resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property is hereby authorized for the 2022 levy in the amount of \$0, which is a percentage increase of 0% from the previous year.

ADOPTED this ____ day of _____, 2021

ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, Council Chair

APPROVED AS TO FORM:

() APPROVED () NOT APPROVED

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor

Satpal Singh Sidhu, Executive

Date: _____



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-648

File ID:	AB2021-648	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Ordinance Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: cstrong

TITLE FOR AGENDA ITEM:

Ordinance adopting amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Ordinance adopting amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County and repealing Ordinance No. 2021-066

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Ordinance, Exhibit A, Map of Facilities

Whatcom County Planning & Development Services Staff Report

Proposed Amendments to WCC Title 20 (Zoning) Regulating the Production, Processing, and Retail Sales of Recreational Marijuana in Whatcom County and Repeal of Ordinance No. 2021-066 (Marijuana Moratorium)

I. File Information

File #: PLN2021-00009

File Name: Marijuana Regulations

Project Summary: Proposed amendments to WCC Title 20 (Zoning) regulating the production, processing, and retail sales of recreational marijuana in Whatcom County.

Applicant: Whatcom County Planning and Development Services (PDS)

Location: Countywide.

Recommendations:

- Planning Commission – Approve
- Planning and Development Services – Approve

Attachments:

- Draft Ordinance
- Exhibit A – Proposed Amendments

II. Background

On November 6, 2012, Initiative 502 was passed by the voters of the State of Washington, amending Chapter 69.50 RCW and providing the regulatory framework for marijuana producers, processors, and retailers to become licensed by the Washington State Liquor Control Board (“WSLCB”).

On November 16, 2013, the WSLCB adopted final marijuana licensing rules as codified in Chapter 314-55 WAC. During the period between November 18, 2013 and December 20, 2013, the WSLCB accepted marijuana license applications for marijuana production, processing and retail facilities. Whatcom County began receiving notifications of proposed marijuana facilities from the WSLCB in mid-December, 2013, and the WSLCB anticipated issuing marijuana producer, processor, and retail licenses to qualified applicants starting in late February or March, 2014.

On January 16, 2014, the Washington State Attorney General issued an opinion stating that Initiative 502 does not preempt counties from banning or placing additional regulatory requirements on marijuana related businesses within their jurisdictions.

During the licensing application window between November 18, 2013, and December 20, 2013, the WSLCB accepted approximately 228 recreational marijuana producer, processor and/or retail license applications for unincorporated Whatcom County. Whatcom County soon after began receiving notifications from the WSLCB of those applicants and applied to locations. The Prosecuting Attorney and

PDS had at the time implemented a zoning interpretation policy, which stated that PDS would regulate marijuana proposed uses, as allowed by Initiative 502 in the same way as any other commodity that is grown, processed, or sold in Whatcom County. However, it became evident that many of those proposed locations could conflict with other surrounding uses.

On February 11, 2014, the Whatcom County Council adopted Ordinance 2014-011, an emergency ordinance imposing a moratorium on the acceptance of all building and/or land use applications that pertain to marijuana producers, processors, retailers and medical marijuana collective gardens.

On March 31, 2015, the Whatcom County Council adopted Ordinance 2015-006, which contains the current County zoning regulations for recreational marijuana type uses. The regulations allowed for the production (as a permitted use) and processing (as an administrative approval use) of marijuana in the Rural, Rural Forestry, Agriculture, Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts, subject to a proposed facility meeting several stated use standards. Such standards include odor controls (for indoor grows), lighting, traffic and parking control measures, as well as setbacks of 1,000 feet from community centers and 300 feet from residences not located on the same property.

When Whatcom County's regulations were first adopted, the County Council chose to treat marijuana production like any other agricultural endeavor, as most of the applicants were small businesses. However, as no new state licenses are being issued it seems that more recently larger operators (with more capital) are buying up the earlier licenses and expanding operations or changing locations.

Earlier this year both the Commission and the Council received numerous complaints from citizens neighboring certain of the marijuana production and processing facilities. Issues raised included odor, lighting, and excessive water usage. As of 4/27/2021, there were 2 licensed (only) producers, 4 licensed (only) processors, 29 licensed (combo) producers/processors, and 12 licensed retailers of marijuana in unincorporated Whatcom County (see attached map, which also indicates how many are in each zoning district). (For a comparison of the numbers of producers in other counties, see Figure 1, below.) It should be noted that the majority of complaints arise from only a couple of Whatcom County producers; the majority of the operations are complying with the regulations and not causing problems.

Based on those citizen complaints, the Planning Commission recommended, and the Council adopted, an interim 6-month moratorium on accepting applications for outdoor marijuana production and/or processing facilities (Ord. 2021-018, 4/6/21). On April 20th the Council expanded that moratorium to further clarify that "outdoors" for purposes of the moratorium includes production on open land; in non-rigid greenhouses (i.e., hoop houses); in greenhouses with rigid walls, a roof, and doors; and similar type greenhouse structures (Ord 2021-023). That moratorium would have expired on November 7, 2021. However, on October 26, 2021, the Council extended that moratorium for another six months.

The Council also placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to:

"Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan."

Thus, the Planning Commission held two public workshops and with staff assistance developed the proposed amendments to the County's recreational marijuana land use regulations discussed below. On October 14th they held a public hearing and voted 5-2-0 to approve the amendments shown in Exhibit A.

Marijuana Producers in Washington

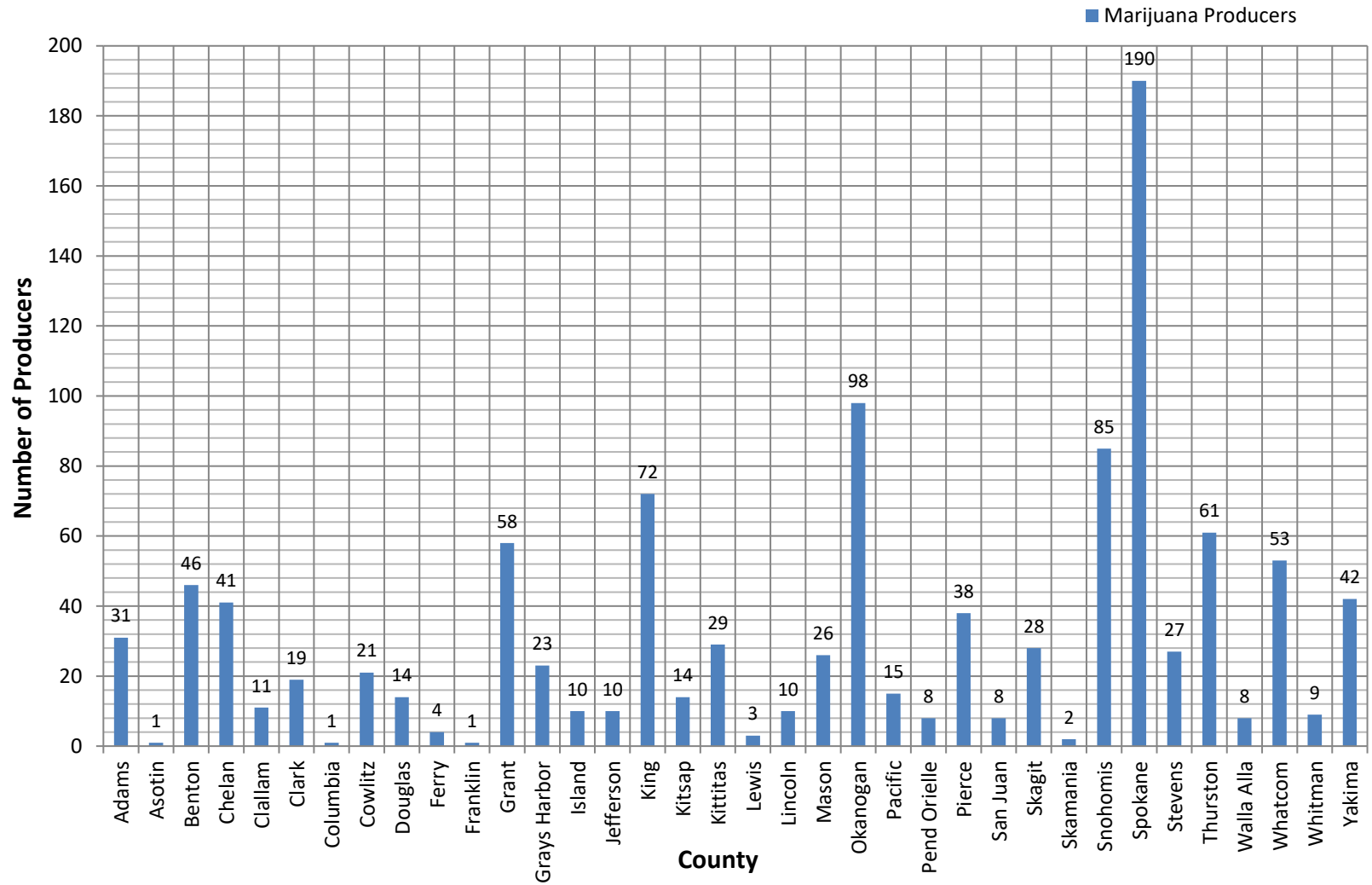


Figure 1. Number of marijuana producers in WA State counties (LCB data, Aug 2021).

III. Proposed Amendments

The proposed amendments are found in Exhibit A. Please refer to that attachment; explanations are provided therein. Tables 1 and 2

Table 1. Summary of Existing Marijuana Rules

	Zone Requirements						Supplemental Requirements (Applies in all zones)											
Type	Zone	Permit Type	Distance req't	Lot Size	Accessory Use	Odor	Odor	Lighting	Traffic	Parking	Character	Max. Employees						
Production	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence	If land is < 4.5 ac then facility limited to 2,000 sf			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking	Must be compatible with area's character	N/A						
	RF	P																
	A	P																
	RIM	P			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors													
	LII	P																
	HII	P																
Processing	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ¹	If land is < 4.5 ac then facility limited to 2,000 sf ²	Must be accessory to production	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking		10						
	RF	P	Not w/in 300' of an offsite residence ¹									10						
	A	P	Not w/in 1,000' of a community center ¹									20						
	RIM	P										10						
	LII	P										10						
	HII	P										10						
	Retail	STC	P		Limited to 2,500 sf													
		NC	P															
RGC		P																
GC		P																

Table 2, below, also provide summaries of the existing and proposed regulations, respectively. Following, however, is a list of proposed policy changes.

“Marijuana Production Facilities” Definition (§20.97.227)

The terms “outdoor” and “indoor” production facilities are being relabeled as Type 1 and Type 2 Marijuana Production Facilities. The reason is that the difference between outdoor and indoor in terms of structure type is confusing, given that greenhouses and other such structures are a little of both. What seems to really matter—in terms of how many grow cycles one can obtain, and thus how often flowering marijuana produces the objectionable odor—is whether artificial lighting is used to aid in the growth cycle, as that extends growing and flowering cycles to several. Testimony from producers indicated that without artificial lighting a producer can only obtain one growth cycle here in Whatcom County.

One proviso is that producers have commented that even if they are small scale and don’t use artificial lighting for most production they still need at least one small structure (a.k.a, “headhouse” or “mother room”) in which they can overwinter¹ the plants. So the proposed definition of a Type 1 facility allows one small structure with artificial lighting for overwintering plants.

Locations for Type 1 (“Outdoor”) vs. Type 2 (“Indoor”) Production

The Planning Commission was averse to prohibiting outdoor production entirely, in particular because it uses less energy and is less costly for small start-ups. But they did want to limit the size of outdoor production in the zones that typically have more residential uses (i.e., Rural and Agriculture) as one way to reduce odor impacts (most odor complaints have arisen around the larger (Tier 3) hybrid² facilities in the Rural district).

Thus, the draft regulations propose to:

- a) Allow Type 1 facilities only in the Rural and Agricultural districts and limit the area of production facilities to a maximum of 1 and 2 acres, respectively, (§20.80.690(2)(a)); and
- b) Allow Type 2 facilities only in the Rural (with a facility size limit of 1 acre) and industrial (RIM, LII, & HII) districts (with no facility size limit).

(Note: Lot coverage standards for each district also place a limit on the total square footage of structures on a lot commensurate with the lot size.)

Use and Permit Requirements

As a way to further reduce externalities the Commission wanted to require permits that have more public process. Thus, rather than being a Permitted use in most zones as they are currently, the following is proposed:

- In the Rural and Agriculture districts Type 1 production and processing should be an Administrative Approval Use (requiring public notice, written comments, and decision by staff);
- In the Rural district Type 2 production should be a Conditional Use (requiring public notice and a public hearing and decision by the Hearing Examiner).

¹ According to one knowledgeable producer overwintering plants is part, but only part, of the purpose of the headhouse. Their primary purposes are 1) the preservation of genetics and 2) the propagation of new plants.

² Moving plants between and using both artificial and natural lighting (or indoor and outdoor) so as to achieve more growing cycles.

- In the Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts Type 1 production should not be allowed (as these zones are intended for industrial type development and higher wage job creation) but Type 2 production and processing should be allowed as a Permitted Use.
- Additionally, neither marijuana production nor processing should be allowed in the Rural Forestry district, as this zone is intended to protect such lands for forest production and forestry jobs. Currently there are no production or processing facilities located in this district.

Lighting

One of the other externalities from outdoor grow operations people have complained about is the excessive lighting coming from grow lights in transparent and semi-transparent structures (i.e., green- and hoop-houses). Additionally, growing seasons can be extended to up to 3-4 cycles by using artificial lighting, extending the odiferous periods significantly.

For outdoor fixtures (security lights, etc.), lighting impacts can be mitigated by requiring the installation and use of down-shielding. For facilities using artificial lighting in their growth cycles, lighting impacts can be mitigated by requiring the installation and use of blackout shades. Such language has been included in the draft amendments (§20.80.690(3)(a)).

Odor

Odor from Type 2 (“indoor”) production can be controlled through the installation and use of ventilation and odor control systems, and such language has been included in the draft amendments (§20.80.690(3)(g)(ii)). And though language has been included stating that odor from any production facility cannot be detectable at or beyond the property boundaries at a level that causes a public nuisance (§20.80.690(3)(g)(i)), odor from Type 1 facilities cannot be controlled the same as with Type 2 production facilities. However, it is understood that Type 1 production can generally only obtain one growth cycle, so the time and duration of odors from these facilities should be limited. Additionally, it can be significantly reduced in time and duration through the other regulations the Commission recommends, as discussed herein.

Limit on Number of LCB Licenses per Lot

As a way of preventing multiple businesses from operating on the same lot or from one business buying additional LCB licenses and stacking multiple licenses to create larger scale, more intensive operations, the Commission proposes to limit operations to one production and/or processing license(s) per lot in the more residential districts. Thus, such language has been included in the draft regulations for the Rural and Agriculture districts. (§20.80.690(2)(d))

Setbacks/Separation Requirements

Currently production in the Rural, Rural Forestry, and Agriculture districts requires a 1,000’ separation (measured from property lines) from community centers³ and a 300’ setback (measured from

³ Defined in Title 20 as “land and/or building(s) owned by a public agency or private nonprofit entity used for social, civic, educational, religious, or recreational purposes, which serves mainly the community where located; including but not limited to community halls and centers, grange halls, senior citizen centers, teen centers, youth clubs, field houses, and churches. The facilities are available for occasional public meetings. They may also have the minimal kitchen facilities required for occasional banquets. Private clubs as defined in this title are not included.”

structures) from existing off-site residences⁴. For processing the same rule applies in the Rural district, but only the 300' setback from residences applies in the Rural Forestry district, and the 1,000' setback from community centers in the Agricultural district. The Commission expressed no interest in modifying the existing setback and separation requirements so the existing ones have been carried over into the proposed amendments. (§20.80.690(2)(b))

But additionally, based on public comments the Commission received, the draft amendments would require a 1,000 foot separation between production facilities so that one particular neighborhood doesn't all end up with several. (§20.80.690(2)(c))

Processing Facilities that Use Hazardous Materials

The Commission agreed that processing facilities that use hazardous materials should only be allowed in the industrial districts. Such language has been included in the draft amendments (§20.80.690(2)(f)). Currently there are no such facilities in the rural districts, as adequate fire flow is necessary and can't be obtained without major investment. Thus, this change shouldn't affect any existing processors.

Nonconforming Rules

The Commission agreed that production and processing facilities made nonconforming by revisions to the marijuana regulations should be able to continue (as are all nonconforming uses under the County code), but not be able to expand (by any significant amount) or change to another nonconforming use. Thus such language has been included (§20.80.690(1)(e)).

IV. Comprehensive Plan Evaluation

The proposed amendments to WCC Title 20 (Zoning) have been developed using the guidance of the Comprehensive Plan so as to remain consistent. Though there are no policies regarding marijuana production or processing, the following support the proposed amendments:

Policy 2DD-2: Protect the character of the rural area through the County's development regulations.

(Supports limiting the size, location, and types of marijuana production facilities in the rural areas so as to reduce externalities)

Policy 2FF-2: Support resource-based industries that require only rural services, conserve the natural resource land base, and help maintain the rural character and lifestyle of the community.
Assure adequate facilities, mitigation and buffers through development regulations.

(Supports eliminating marijuana production and processing facilities as an allowed use in the Rural Forestry district.)

V. Draft Findings of Fact and Reasons for Action

Staff recommends the Planning Commission adopt the following findings of fact and reasons for action:

1. The County Council placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to: "Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing

⁴ This 300' setback was taken from our manure lagoon regulations (WCC 20.80.225(2)) as a way to reduce odor impacts.

facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan.”

2. Whatcom County Planning and Development Services (PDS) submitted an application (PLN2021-00009) to revise the County’s recreational marijuana production, processing, and retail sales zoning regulations.
3. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on September 29, 2021.
4. Notice of the subject amendments was submitted to the Washington State Department of Commerce on September 13, 2021, for their 60-day review.
5. On October 14, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed draft amendments.
6. The County Council held a duly noticed public hearing on the proposed amendments on X , 2021.
7. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, Chapter 314-55 WAC, and other applicable requirements.
8. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.
9. Once this ordinance is adopted and effective there is no longer a need for the interim moratorium imposed by Ordinance No. 2021-066.

VI. Proposed Conclusions

1. The amendments are in the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

VII. Recommendation

At their October 14, 2021, meeting the Planning Commission voted 5-2-0 to approve the draft findings of fact and the amendments shown in Exhibit A.

Planning and Development Services recommends that the County Council approve the draft ordinance with amendments to the Whatcom County Code as shown in Exhibit A.

Table 1. Summary of Existing Marijuana Rules

	Zone Requirements						Supplemental Requirements (Applies in all zones)											
Type	Zone	Permit Type	Distance req't	Lot Size	Accessory Use	Odor	Odor	Lighting	Traffic	Parking	Character	Max. Employees						
Production	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ⁵	If land is < 4.5 ac then facility limited to 2,000 sf ⁶			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking	Must be compatible with area's character	N/A						
	RF	P																
	A	P																
	RIM	P			For indoor production only, must install ventilation, can't emit odors beyond walls, or bother neighbors													
	LII	P																
	HII	P																
Processing	R	ADM	Not w/in 1,000' of a community center or 300' of an offsite residence ¹	If land is < 4.5 ac then facility limited to 2,000 sf ²	Must be accessory to production	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	For indoor processing only, must install ventilation, can't emit odors beyond walls, or bother neighbors	Must be controlled away from adjoining properties and roads	Can't be more than what's expected in the zone	Must provide off-street parking		10						
	RF	P	Not w/in 300' of an offsite residence ¹									10						
	A	P	Not w/in 1,000' of a community center ¹									20						
	RIM	P										10						
	LII	P										10						
	HII	P										10						
	Retail	STC	P		Limited to 2,500 sf													
		NC	P															
RGC		P																
GC		P																

⁵ May be waived when all adjacent property owners agree.

⁶ Note that a Tier 1 production license allows up to 10,000 sf of grow area, so this rule essentially prohibits production on smaller lots.

Table 2. Summary of Proposed Marijuana Rules

Type	Zone Requirements			Supplemental Requirements										
	Zone	Facility/Permit Type	Lot Coverage ¹	Facility Size Restrictions	Separation of Facilities	Accessory Use	Separation	# of Licenses	Hazardous Materials	Screening	Odor	Lighting	Noise	Other
Production	R	Type 1 – ADM	No structure or combination of structures shall occupy or cover more than 5,000 square feet or 20%, whichever is greater, of the total lot area, not to exceed 25,000 square feet. (§20.36.450)	For parcels < 4.5 ac production or processing facilities limited to 2,000 sf	Not w/in 1,000' of another production facility		Not w/in 1,000' of a community center or 300' of an offsite residence ²	1 production and/or 1 processing license per lot	N/A	Consistent with WCC 20.80.345 (Buffer Plantings).	Must install engineered odor control system; no VOCs shall be emitted that is detectable at or beyond the property boundaries	Light fixtures shall be designed and down-shielded away from adjoining properties, critical areas, shorelines, and public roads. Indoor lights must use blackout shades. All structures using artificial lighting for aiding in the growth cycle of plants shall install and employ mechanisms (e.g., blackout shades) that prevent light from escaping production structures	Shall comply with WCC 20.80.620 (Noise), and have a mechanical engineer design the noise control system	Must also comply with security, water, waste disposal, and parking standards
		Type 2 – CUP		For parcels ≥ 4.5 ac production facility limited to 1 ac										
	AG	Type 1 – ADM	No structure or combination of structures, including accessory buildings, shall occupy or cover more than 25% of the total area of the subject parcel... (§20.40.450)	For parcels < 4.5 ac production facility limited to 2,000 sf	For parcels ≥ 4.5 ac production facility limited to 2 ac		Also limited by lot coverage restrictions							
	RIM	Type 2 – P	In a rural community designation, combined floor area of all buildings shall not exceed that of a use of the same type that existed on a lot in that same rural community designation on July 1, 1990. (§20.69.451)	In a rural business designation, building or structural coverage of a lot shall not exceed 50% of the total area. (§20.69.452)										
	LII	Type 2 – P	The maximum building coverage shall not exceed 60% of the lot size. (§20.66.450)											
	HII (ADM)	Type 2 – P	The maximum building or structural coverage shall not exceed 60% of the lot size. (§20.68.450)											
Processing	R	ADM	Same as for production, above	For parcels < 4.5 ac processing & production area limited to 2,000 sf		Must be accessory to production	Not w/in 1,000' of a community center or 300' of an offsite residence ²	1 production and/or 1 processing license per lot	Not allowed					
	AG	ADM							Allowed, but with standards					
	RIM	P												
	LII	P												
	HII	P												
Retail	STC	P		Limited to 2,500 sf										
	NC	P												
	RGC	P												
	GC	P												

¹ Though not a specific marijuana facility regulation, these rules apply to all hard surfaces, including structures and would limit the size of structures commensurate with the lot size.

PROPOSED BY: _____
INTRODUCTION DATE: _____

ORDINANCE NO. _____

**ADOPTING AMENDMENTS TO WCC TITLE 20 (ZONING) REGULATING THE PRODUCTION, PROCESSING,
AND RETAIL SALES OF RECREATIONAL MARIJUANA IN WHATCOM COUNTY AND REPEALING
ORDINANCE NO. 2021-066**

WHEREAS, on November 6, 2012, Initiative 502 was passed by the voters of the State of Washington, amending Chapter 69.50 RCW and providing the regulatory framework for cannabis producers, processors, and retailers to become licensed by the Washington State Liquor and Cannabis Board ("WSLCB"); and,

WHEREAS, on November 16, 2013, the WSLCB adopted final cannabis licensing rules as codified in Chapter 314-55 WAC. During the period between November 18, 2013 and December 18, 2013, the WSLCB accepted cannabis license applications for cannabis production, processing and retail facilities. Whatcom County began receiving notifications of proposed cannabis facilities from the WSLCB in mid-December 2013, and the WSLCB began issuing cannabis producer, processor, and retail licenses to qualified applicants in March of 2014; and,

WHEREAS, on January 16, 2014, the Washington State Attorney General issued an opinion stating that Initiative 502 does not preempt counties from banning or placing additional regulatory requirements on cannabis related businesses within their jurisdictions; and,

WHEREAS, the Prosecuting Attorney and Planning and Development Services (PDS) had at the time implemented a zoning interpretation policy, which stated that PDS would regulate cannabis proposed uses as allowed by Initiative 502 in the same way as any other commodity that is grown, processed, or sold in Whatcom County, it became evident that many of those proposed locations could conflict with other surrounding uses; and,

WHEREAS, on February 11, 2014, the Whatcom County Council adopted Ordinance 2014-011, an emergency ordinance imposing a moratorium on the acceptance of all building and/or land use applications that pertain to cannabis producers, processors, retailers and medical cannabis collective gardens; and,

WHEREAS, the County developed and implemented several sets of interim regulations during that time, though none were deemed appropriate by the Council as permanent regulations; and,

WHEREAS, on March 31, 2015, the Whatcom County Council adopted Ordinance 2015-006, which contains the current County zoning regulations for recreational cannabis type uses, treating cannabis similar to other agricultural products; and,

WHEREAS, Whatcom County Code (WCC) 20.97.227 defines marijuana production as a facility licensed by the state Liquor and Cannabis Board to produce, harvest, trim, dry, cure, and package marijuana, and sell marijuana at wholesale to state-licensed marijuana processors and other state licensed marijuana producers; and,

WHEREAS, WCC 20.97.227 states marijuana production may take place either indoors within a fully enclosed secured facility or a greenhouse with rigid walls, a roof and doors, or outdoors in non-rigid

greenhouses, other structures or an expanse of open or cleared ground fully enclosed by a physical barrier; and,

WHEREAS, Ordinance 2015-006 allows for the production and processing of cannabis in the Rural (administrative uses), Rural Forestry (permitted uses) and Agriculture zone districts (permitted uses), subject to a proposed facility meeting several stated use standards. Such standards include odor controls (for indoor grows only), lighting, traffic and parking control measures, as well as setbacks of 1,000 feet from community centers and 300 feet from residences not located on the same property. The ordinance also allowed for the production and processing of marijuana in the Rural Industrial and Manufacturing, Light Impact Industrial, and Heavy Impact Industrial districts as permitted uses, subject to odor control measures (for indoor grows); and,

WHEREAS, the WSLCB is no longer issuing new licenses, existing licenses throughout Washington State can be transferred and Whatcom County was notified by the WSLCB of approximately 30 recreational marijuana production and/or processing renewal licenses last year (2020) within unincorporated Whatcom County; and,

WHEREAS, while earlier licensees were small, local producers, their licenses now appear to be being transferred to larger operators with more capital who are buying up the earlier licenses and expanding and/or changing operations and/or locations; and,

WHEREAS, prior to adoption of the first moratorium on issuing new permits for certain marijuana production facilities, the Council, Executive, Planning Commission, and PDS received complaints from residents adjacent to existing and proposed cannabis facilities regarding excessive odor, lighting, and potential water usage, suggesting that the County's cannabis regulations may not be sufficient; and,

WHEREAS, on March 23, 2021, the County Council adopted the 2021 Docket, a component of the PDS work plan, including item PLN2021-00009, to "Review and revise Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan." However, due to the pandemic, the Planning Commission and County Council have backlogs of other issues to address, and PDS will need time to work with the community to properly develop and process any potential regulatory amendments; and,

WHEREAS, on April 20, 2021, the County Council adopted Ordinance No. 2021-023, imposing a six-month interim moratorium prohibiting the filing, acceptance, or processing of new applications for permits or authorizations for recreational marijuana production and/or processing facilities which are proposed to operate outdoors or in greenhouses; and,

WHEREAS, on October 26, 2021, through the adoption of Ordinance No. 2021-066, the Council extended that moratorium for an additional 6 months; and

WHEREAS, once this ordinance is adopted and effective there is no longer a need for the interim moratorium imposed by Ordinance No. 2021-066;

WHEREAS, pursuant to the Washington State Constitution, the general police powers granted to counties empower and authorize Whatcom County to adopt land use controls to provide for the regulation of land uses within the County and to provide that such uses shall be consistent with applicable law; and,

FINDINGS OF FACT

1. The County Council placed on the County's annual docket PLN2021-00009, directing Planning and Development Services (PDS) to: "Review and revised Whatcom County Code relating to marijuana growing and processing in rural areas. Consider impacts of marijuana growing and processing facilities in rural areas, and evaluate growing and processing facilities as an agricultural or non-agricultural use. Consider compatibility with GMA and County Comprehensive Plan."
2. Whatcom County Planning and Development Services (PDS) submitted an application (PLN2021-00009) to revise the County's recreational marijuana production, processing, and retail sales zoning regulations.
3. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on September 29, 2021.
4. Notice of the subject amendments was submitted to the Washington State Department of Commerce on September 13, 2021, for their 60-day review.
5. On October 14, 2021, the Planning Commission held a duly noticed public hearing to consider testimony on the proposed draft amendments.
6. The County Council held a duly noticed public hearing on the proposed amendments on November 23, 2021.
7. The amendments are consistent with the Growth Management Act, Whatcom County Comprehensive Plan, Chapter 314-55 WAC, and other applicable requirements.
8. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

CONCLUSIONS

1. The amendments to the development regulations are the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

Section 1. Amendments to the Whatcom County Code are hereby adopted as shown in Exhibit A.

Section 2. Ordinance No. 2021-066 is hereby repealed in its entirety upon the effective date of this ordinance.

ADOPTED this _____ day of _____, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Council Clerk

APPROVED as to form:

Barry Buchannan, Council Chair

() Approved () Denied

Civil Deputy Prosecutor

Satpal Sidhu, Executive

Date: _____

Exhibit A – Proposed Marijuana Code Amendments

WCC Title 20 Zoning

Chapter 20.36 RURAL (R) DISTRICT

20.36.130 Administrative approval uses.

The following uses are permitted subject to administrative approval pursuant to WCC 22.05.028.

...

.137 Type 1 Marijuana Production Facilities, subject to WCC 20.80.690y; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:

- (1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (3) On parcels smaller than four and one-half acres the facility shall not exceed a total of 2,000 square feet, except where the facility is contained within a building that existed on the effective date of the ordinance codified in this section.

.138 Marijuana Processing Facilities, subject to WCC 20.80.690.y; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694 and WCC 22.05.028:

- (1) The facility is accessory to the on-site production of marijuana.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility.
- (3) On parcels smaller than four and one-half acres the total area used for marijuana processing and production shall not exceed 2,000 square feet, except where the facility is contained within a building that existed on the effective date of the ordinance codified in this section.

20.36.150 Conditional uses.

...

.160 Type 2 Marijuana Production Facilities, subject to WCC 20.80.690.

...

Chapter 20.40 AGRICULTURE (AG) DISTRICT**20.40.050 Permitted uses.**

Unless otherwise provided herein, permitted, accessory, and conditional uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 WCC (Supplementary Requirements), and Chapter 22.05 WCC (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program). The following are permitted uses:

...

.059 Marijuana production facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:

- (1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility and the waiver is approved through an administrative approval process per WCC 22.05.028.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

...

20.40.100 Accessory uses.

...

.115 Marijuana Processing Facility, WCC 20.80.690 through 20.80.694:

- (1) The facility is accessory to the on-site production of marijuana.
- (2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

20.40.130 Administrative approval uses.

...

.140 Type 1 Marijuana Production Facilities, subject to WCC 20.80.690.

.141 Marijuana Processing Facilities, subject to WCC 20.80.690.

...

Chapter 20.42 RURAL FORESTRY (RF) DISTRICT**20.42.050 Permitted uses.**

Unless otherwise provided herein, permitted, accessory, and conditional uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 WCC (Supplementary Requirements), and Chapter 22.05 WCC (Project Permit Procedures), the Whatcom County Chapter 16.08 (SEPA) Ordinance, Title 21 (Land Division Regulations) the Whatcom County Subdivision Ordinance, and Title 23 the Whatcom County (Shoreline Management Program).

...

~~.070 Marijuana production facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:~~

- ~~(1) The facility shall not be located within 1,000 feet of a community center. The distance shall be measured as the shortest straight line distance from the property line of the proposed building/business location to the property line of the community center. The zoning administrator may waive this spacing requirement from community centers if the authorized representatives of all existing community centers within 1,000 feet provide a notarized written agreement as provided by the department consenting to the facility and the waiver is approved through an administrative approval process per WCC 22.05.028.~~
- ~~(2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the production of marijuana. The zoning administrator may waive this spacing requirement from residential units if the owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.~~

...

20.42.100 Accessory uses.

...

~~.106 Marijuana processing facility; provided, that in addition to the criteria found in WCC 20.80.690 through 20.80.694:~~

- ~~(1) The facility is accessory to the on-site production of marijuana.~~
- ~~(2) The facility shall not be located within 300 feet of any existing residential unit not located on the same parcel as the facility. The distance shall be measured as the shortest straight line distance from the closest point of a single family dwelling (structure) to any structure or fence used for the processing of marijuana. The zoning administrator may waive this spacing requirement if the~~

owners of all existing residential units within 300 feet provide a notarized written agreement as provided by the department consenting to the facility, and the waiver is approved through an administrative approval process per WCC 22.05.028.

...

Chapter 20.69 RURAL INDUSTRIAL AND MANUFACTURING (RIM) DISTRICT

20.69.050 Permitted uses.

The following permitted uses shall be allowed subject to an evaluation by the Director zoning administrator pursuant to the provisions of this chapter and WCC Chapter 20.80 (Supplementary Requirements) ~~WCC~~. In a rural community designation, nonresidential uses listed below are permitted if a use of the same type existed in that same rural community designation on July 1, 1990, per WCC 20.80.100(1). In a rural business designation all uses listed below are permitted.

.051 Manufacturing/fabrication type uses.

...

(17) Type 2 M marijuana production facilities, subject to WCC 20.80.690.

(18) Marijuana processing facilities, subject to WCC 20.80.690.

...

20.69.700 Performance standards.

20.69.704 Odor, dust, dirt, and smoke.

(1) Except as specified in subsection (2), No odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.

(2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

~~20.69.708 Marijuana odor.~~

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES1]: Now covered by 20.80.690(3)(g).

Chapter 20.66 LIGHT IMPACT INDUSTRIAL (LI) DISTRICT

20.66.050 Permitted uses.

Unless otherwise provided herein, permitted and accessory uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80 ~~WCC~~ (Supplementary Requirements), Chapter 22.05 ~~WCC~~ (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land

Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program).

...

.087 Type 2 Marijuana Production or Processing Facilities, subject to WCC 20.80.690.

.088 Marijuana Processing Facilities, subject to WCC 20.80.690.

...

20.66.700 Performance standards.

...

20.66.704 Odors.

(1) Except as specified in subsection (2), No odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.

(2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

20.66.709 Marijuana odor.

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES2]: Now covered by 20.80.690(3)(g).

Chapter 20.68 HEAVY IMPACT INDUSTRIAL (HII) DISTRICT

20.68.050 Permitted uses.

Unless otherwise provided herein, permitted and accessory uses shall be administered pursuant to the applicable provisions of WCC Chapter 20.80-WCC, (Supplementary Requirements), and Chapter 22.05 WCC, (Project Permit Procedures), Chapter 16.08 (the Whatcom County SEPA) Ordinance, Title 21 (Land Division Regulations), the Whatcom County Subdivision Ordinance and Title 23 the Whatcom County (Shoreline Management Program). The purpose of the SIC numbers listed within this chapter is to adopt by reference other activities similar in nature to the use identified herein. (Policies of the subarea Comprehensive Plan may preclude certain permitted uses to occur in particular subareas. Please refer to the policies of the applicable subarea plan to determine the appropriateness of a land use activity listed below.)

...

.066 Type 2 Marijuana Production or Processing Facilities, subject to WCC 20.80.690.

.067 Marijuana processing facilities, subject to WCC 20.80.690.

...

20.68.700 Performance standards.

...

- (1) Except as specified in subsection (2), ~~no~~ odor, dust, dirt, or smoke shall be emitted that is detectable at or beyond the property line, for the use concerned, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of property beyond the boundaries of the district.
- (2) For marijuana production or processing facilities, odor shall be regulated pursuant to WCC 20.80.690(3)(g).

...

~~20.68.709 Marijuana odor.~~

~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~

Comment [CES3]: Now covered by 20.80.690(3)(g).

20.80 SUPPLEMENTARY REQUIREMENTS**~~20.80.690 Marijuana production and processing.~~****~~20.80.691 Marijuana state license required.~~**

~~Prior to commencing operations, a marijuana producer, processor, or retailer shall obtain approval as a state-licensed marijuana producer, processor, or retailer under Chapter 69.50 RCW, as amended, and Chapter 314-55 WAC, as amended.~~

Comment [CES4]: Now covered by 20.80.690(1)(a).

~~20.80.692 Application for county development permits—Timing.~~

~~Applicants for marijuana production, processing, or retailing may apply for county development permits at any time. Applicants who wish to apply for county permits, or commence construction of facilities for producing, processing, or retailing of marijuana under Chapter 69.50 RCW, prior to obtaining approval as a state-licensed marijuana producer, processor or retailer do so at their own risk. Final occupancy of the building will not be granted until a state Liquor and Cannabis Board license has been approved.~~

Comment [CES5]: Now covered by 20.80.690(1)(a).

~~20.80.693 Production.~~

- (1) ~~For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.~~
- (2) ~~Any lights used to illuminate the facility shall be so arranged as to direct the light away from the adjoining property and the public road.~~

Comment [CES6]: Now covered by 20.80.690(3)(g).

Comment [CES7]: Now covered by 20.80.690(3)(a).

- (3) No traffic shall be generated by such a facility in greater volume than would normally be expected in the applicable zoning district and appropriate for the road classification which serves the property.
- (4) Any need for parking generated by the conduct of such a facility shall meet the off-street parking requirements as specified in this title. At least one additional space shall be provided for each nonresident on-site employee.
- (5) The proposed use shall be compatible with the general appearance and character of the surrounding area. The zoning administrator at his or her discretion may require landscape screening pursuant to the requirements of WCC 20.80.345.

20.80.694 Processing.

- (1) The facility employs no more than 10 permanent employees, except that in the Agriculture and Rural Forestry Zones the facility may employ no more than 20 employees.
- (2) For indoor facilities no odor or smoke shall be emitted that is detectable at or beyond the walls of the facility, in such a concentration or of such duration as to cause a public nuisance, or threaten health or safety, or to unreasonably infringe upon the use and enjoyment of neighboring use. The applicant shall install an exhaust system that is designed and constructed to capture sources of contaminants to prevent spreading of contaminants or odors to other occupied parts of the building or surrounding area. The system must be designed by a licensed Washington State professional engineer.
- (3) Any lights used to illuminate the facility shall be so arranged as to direct the light away from the adjoining property and the public road.
- (4) No traffic shall be generated by such a facility in greater volume than would normally be expected in the applicable zoning district and appropriate for the road classification which serves the property.
- (5) Any need for parking generated by the conduct of such a facility shall meet the off-street parking requirements as specified in this title. At least one additional space shall be provided for each nonresident on-site employee.

20.80.690 Marijuana – Production and Processing Facilities.

- (1) **General.** Marijuana production or processing facilities shall comply with RCW Title 69, Chapter 314-55 WAC, and the following general standards:
- The WSLCB must approve a marijuana license for the subject property prior to issuance of the County's certificate of occupancy for buildings proposed for marijuana production or processing. Any permitting or construction work done prior to receiving said license is done so at the applicant's own risk.
 - Consistent with WAC 314-55-015, marijuana production and processing shall not take place in a residence or other location where law enforcement access, without notice or cause, is limited.
 - Marijuana production and processing are not allowed as home occupations or cottage industries.
 - Marijuana production and processing operations may not be located in critical areas or their buffers (WCC Chapter 16.16, Critical Areas) or in the shoreline jurisdiction (WCC Title 23).
 - Nonconforming Uses.** This section applies to those marijuana facilities legally existing as of INSERT DATE OF ADOPTION OF THESE RULES that, due to noncompliance with these standards,

Comment [CES8]: Staff believes we don't need this. Firstly, there's no way to judge what "greater volume than would normally be expected." Secondly, no production facility, with normally only a few employees and no customers coming to the site, would create an inordinate amount of traffic.

Comment [CES9]: Now covered by 20.80.690(3)(d).

Comment [CES10]: Now covered by 20.80.690(3)(b).

Comment [CES11]: Not needed. Was originally included when we were treating marijuana as an agricultural product, and this mimics the language for ag processing

Comment [CES12]: Now covered by 20.80.690(3)(g).

Comment [CES13]: Now covered by 20.80.690(3)(a).

Comment [CES14]: Staff believes we don't need this. Firstly, there's no way to judge what "greater volume than would normally be expected." Secondly, no production facility, with normally only a few employees and no customers coming to the site, would create an inordinate amount of traffic.

Comment [CES15]: Now covered by 20.80.690(3)(h).

Comment [CES16]: Note to Cliff: Fill in upon adoption

become nonconforming. Legally existing facilities that meet these standards are not considered nonconforming and may continue the use or they may expand with the proper permits.

(i) Continuation of Nonconforming Uses. Any legally existing marijuana production or processing facility that becomes nonconforming may continue operations as a nonconforming use within the terms of their permit(s) even when those facilities do not meet the standards of this section, pursuant to WCC 20.83.010.

(ii) Expansion of Nonconforming Uses. Similarly, expansion may be allowed pursuant to WCC 20.83.020, EXCEPT that:

A. Expansion of nonconforming Type 2 marijuana production facilities is prohibited; and,

B. Any other expansion shall be limited to 10% (in area) unless the standards of this section are met.

(iii) Change to Another Nonconforming Use. WCC 20.83.040 shall not apply: Nonconforming marijuana production or processing facilities shall not be able to change to another nonconforming use.

(2) District Specific Standards.

a. Facility Size –

(i) In the Rural district, production or processing facilities on parcels smaller than 4.5 acres shall not exceed a total of 2,000 square feet. On lots of 4.5 acres or greater production and processing facilities shall not exceed 1 acre.

(ii) In the Agriculture district, production and processing facilities on parcels smaller than 4.5 acres shall not exceed a total of 2,000 square feet. On lots of 4.5 acres or greater processing and production facilities shall not exceed 2 acres.

b. Separation of Uses – In the Rural and Agriculture districts, no facility shall be located within 1,000 feet of a **community center** or within 300 feet of any residential dwelling unit not located on the same parcel as the facility and existing at the time of application. Said distance shall be measured as the shortest straight line distance from property lines (for community centers) or structures (for residences).

c. Separation of Facilities – In the Rural and Agriculture districts, no marijuana production facilities shall be located within 1,000 feet of each other. Said distance shall be measured as the shortest straight line distance from such facilities.

d. Limit on Number of Licenses per Lot. In the Rural and Agriculture districts, only one Washington State Liquor and Cannabis Board (WSLCB) marijuana production license may be used per legal lot (though may be combined with one processing license).

e. Accessory Use Only. In the Rural and Agriculture districts, processing facilities are only allowed as an accessory use to a production facility.

f. Hazardous Materials – Marijuana processing using hazardous or flammable solvents or gases is allowed only in the LII, HII, or RIM districts. Producers and processors that will use chemicals, industrial solvents, or other noxious or hazardous substances shall comply with all federal, state, and County safety, fire, structural, storage, and disposal standards. They shall describe the proposed use of hazardous substances, methods, equipment, solvents, gases, and mediums identified in WAC 314-55-104 on permit applications and site plans.

Comment [CES17]: Defined in T-20 as, "Community center" means land and/or building(s) owned by a public agency or private nonprofit entity used for social, civic, educational, religious, or recreational purposes, which serves mainly the community where located; including but not limited to community halls and centers, grange halls, senior citizen centers, teen centers, youth clubs, field houses, and churches. The facilities are available for occasional public meetings. They may also have the minimal kitchen facilities required for occasional banquets. Private clubs as defined in this title are not included."

(3) Facility Design Standards.

- a. Lighting – For both Type 1 and 2 production facilities:
 - (i) Outdoor fixtures illuminating production or processing operations shall be designed and down-shielded to direct light away from adjoining properties, critical areas, shorelines, and public roads.
 - (ii) All structures using artificial lighting for aiding in the growth cycle of plants shall install and employ mechanisms (e.g., blackout shades) that prevent light from escaping production structures.
- b. Screening – Marijuana production and processing facilities shall be landscaped and screened consistent with WCC 20.80.300, et seq. (Landscaping). Screening shall be located outside of the state's required security fence to provide a visual barrier.
- c. Security – Producers and processors shall install the security requirements of WAC 314-55-083 prior to issuance of the County's certificate of occupancy for a marijuana operation.
- d. Parking – Such facilities shall meet the off-street parking requirements of WCC 20.80.500, et seq. (Off-street Parking and Loading Requirements).
- e. Water and Waste Disposal – Permit applications shall include documentation of compliance with the water system requirements and waste disposal regulations of WCC Title 24 (Health Code) and WAC 314-55-097.
- f. Noise – Producers and processors required to install odor control system per subsection (g) shall comply with WCC 20.80.620 (Noise). Fan noise from operations shall be minimized. A mechanical engineer licensed in the state of Washington shall design the noise control system, to be approved by the Building Official, using standard industry practices such as installing fans with components listed by Underwriters Laboratories (UL) and a combination of the following techniques and components:
 - (i) Short and straight line vent runs;
 - (ii) Silencers and insulated vents, vent sleeves and mufflers;
 - (iii) Acoustic ducting;
 - (iv) Fan speed controllers;
 - (v) Soundproofing boxes;
 - (vi) Sound-muffling casing;
 - (vii) Padded foam cushions under the fans;
 - (viii) Intelligent programming motors and controllers; and
 - (ix) Hanging fans hung from bungee cords from hooks in ceiling.
- g. Odor –
 - (i) All Production and Processing – No odor, terpenes, or other similar volatile organic compounds (VOCs) shall be emitted that is detectable at or beyond the property boundaries of the facility in such a concentration or of such duration as to cause a public nuisance or threaten health or safety.
 - (ii) Type 2 Production – Type 2 producers shall minimize odors emitted by using best management practices and technology, and all air must go through an odor control system before being vented outdoors. A mechanical engineer licensed in the state of Washington shall design the odor control system using guidance from the National Air

Filtration Association and approved by the Building Official. The odor control plan must incorporate a combination of the following site design practices, tools, or other newly improved technologies to mitigate odors:

- A. Use of filters on exhaust air prior to dispersal;
- B. Placement of operations after consideration of predominant wind directions;
- C. Installation of additional vegetative buffers around grow areas;
- D. Reduction of passive odor escapes by tightening and sealing structures;
- E. Use of negative pressure techniques and air locks to reduce odors from escaping when doors open;
- F. Use of chillers that move water around the structure and leave air in place instead of air conditioning;
- G. Installation of carbon filter scrubbers to heating, ventilation, and air conditioning systems;
- H. Installation of dry vapor systems;
- I. Installation of ionizers;
- J. Use of mini-vapor screens on the interior, and Vapomatic and vapor screens on the exterior of structures;
- K. Installation of a piping system on perimeter fencing that neutralizes malodorous molecules;
- L. Installation of a gas phase filtration system; and/or,
- M. Installation of a fog system to disperse mixed water- and odor-neutralizing chemicals.

h. *Building Permits Required* – Building permits shall be required for any structures used in Marijuana Production Facilities.

20.80.691 Marijuana – Retail Sales Facilities.

Marijuana retail sales facilities shall comply with RCW Title 69, WAC Chapter 314-55, and the following.

1. The WSLCB must approve a marijuana retail sales license for the subject property prior to issuance of the County's certificate of occupancy for buildings proposed for marijuana retail sales. Any permitting or construction work done prior to receiving said license is done so at the applicant's own risk.
2. Consistent with WAC 314-55-015, marijuana retail sales shall not take place in a residence or other location where law enforcement access, without notice or cause, is limited. Marijuana retail sales are not allowed as home occupations or cottage industries.
3. Retail sales facilities shall install the security requirements of WAC 314-55-083 prior to issuance of the County's certificate of occupancy for a marijuana operation.
4. Such facilities shall meet the off-street parking requirements of WCC 20.80.500, et seq. (Off-street Parking and Loading Requirements).

Chapter 20.97 DEFINITIONS

20.97.010 Agriculture.

“Agriculture” means the use of land for farming, horticulture, floriculture, viticulture, and the necessary accessory uses for packing, treating or storing the produce; ~~provided, however, that, though~~ the operation of any such accessory uses shall be secondary to that of normal agricultural activities. However, the production of marijuana is not considered agriculture.

20.97.010.1 Agricultural Processing.

“Agricultural processing” means the transformation, either chemically or physically, of raw agricultural goods including but not limited to washing, grading, sizing, drying, extracting, icing, producing ornamental agricultural products, sorting, cutting, pressing, bagging, freezing, canning, packaging, milling, crushing, fermenting, aging, pasteurizing, preserving, storage, bottling, but excluding slaughtering of livestock. Agricultural processing includes those process steps associated with product preparation and processing. Storage, warehousing, and distributing products in conjunction with the agricultural processing activity occurring on that site shall be allowed. However, the processing of marijuana is not considered agricultural processing.

20.97.225 Marijuana, ~~marihuana or cannabis.~~

“Marijuana,” ~~(a.k.a., “marihuana” or “cannabis”)~~ means all parts of the plant cannabis, whether growing or not, with a THC concentration greater than 0.3 percent on a dry weight basis; the seeds thereof; the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. The term does not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of the plant which is incapable of germination.

20.97.226 Marijuana processing facility.

“Marijuana processing facility” means a facility licensed by the state Liquor and Cannabis Board to process marijuana into useable marijuana, marijuana concentrates, and marijuana-infused products; ~~and~~ package and label useable marijuana and marijuana-infused products for sale in retail outlets; ~~and~~ sell useable marijuana and marijuana-infused products at wholesale to marijuana retailers. A marijuana processing facility shall include any structure that is associated with the processing of marijuana.

20.97.227 Marijuana production facility.

“Marijuana production facility” means a facility licensed by the state Liquor and Cannabis Board to produce, harvest, trim, dry, cure, ~~and package marijuana,~~ and sell marijuana at wholesale to state-licensed marijuana processors and other state-licensed marijuana producers. A marijuana producer may also produce and sell marijuana plants, seed, and plant tissue culture to other state-licensed marijuana producers. The area of a marijuana production facility includes all the area enclosed within a structure or fence that is required by the state Liquor and Cannabis Board for the production of marijuana. Where limitations on size are imposed pursuant to §20.80.690, the “facility” shall include all structures related

to the production or processing of marijuana and any ground in which marijuana is grown. For the purposes of this code, Whatcom

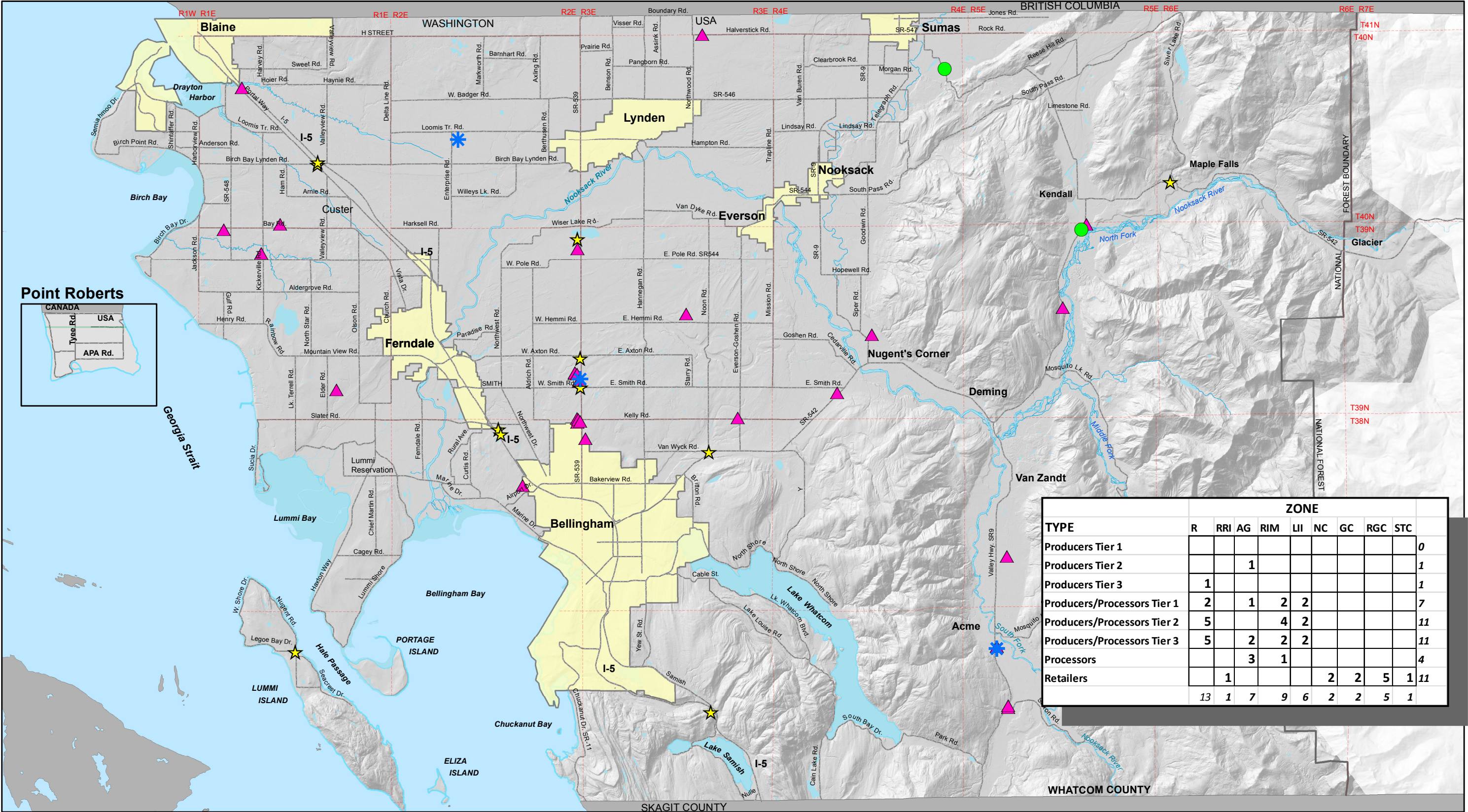
- A. “Type 1 Marijuana ~~Outdoor~~ Production Facilities” shall mean production ~~may~~ takes place outdoors, including in an expanse of open or cleared ground, or in ~~nonrigid greenhouses, other structures that have no artificial lighting for aiding in the growth cycle, or an expanse of open or cleared ground fully enclosed by a physical barrier.~~ except that Type 1 facilities may allocate up to 10% of the total square footage of their allowed facility area to genetic preservation and plant propagation in a designated indoor area with artificial lighting. This area must be clearly identified and described in the permit the application, and is subject to all the supplemental requirements of a Type II Facility; however, no flowering plants are permitted in this area at any time.
- B. “~~Indoor~~ Type 2 Marijuana ~~Production~~ Facilities” shall mean production facilities that use artificial lighting for aiding in the growth cycle ~~be within a fully enclosed secure indoor facility or greenhouse with rigid walls, a roof, and doors.~~

20.97.228 Marijuana retail facility.

“Marijuana retail ~~facility~~” means a facility licensed by the state Liquor and Cannabis Board to sell useable marijuana and marijuana-infused products in a retail outlet. A marijuana retail facility shall include any building ~~or portion thereof~~ that is associated with the sale of marijuana.

Whatcom County

2021 Licensed Cannabis Operations



Legend

- ★

Retailer Only (11)
- ✱

Processor Only (4)
- Incorporated City
- Producer Only (2)
- ▲

Producer/Processor (29)

(Points may represent more than one business at same address)

June 2021

USE OF WHATCOM COUNTY'S GIS DATA IMPLIES THE USER'S AGREEMENT WITH THE FOLLOWING STATEMENT:
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0 0.75 1.5 3 4.5 6 Miles

1923



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-654

File ID:	AB2021-654	Version:	1	Status:	Agenda Ready
File Created:	10/29/2021	Entered by:	CStrong@co.whatcom.wa.us		
Department:	Planning and Development Services Department	File Type:	Resolution Requiring a Public Hearing		
Assigned to:	Council	Final Action:			
Agenda Date:	11/09/2021	Enactment #:			

Primary Contact Email: cstrong@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution approving the Shoreline Management Program Periodic Update 2020

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Consideration of a resolution approving the periodic update of Whatcom County's Shoreline Management Program, which includes amendments to the Whatcom County Comprehensive Plan (shoreline and other policies), WCC Titles 23 (shoreline regulations) and 22 (permitting procedures), WCC Chapter 16.16 (critical areas regulations), and the official Shoreline Map. Additionally, the project addresses Council's docketed items 1) PLN2019-00011, a directive to amend the CompPlan and codes to allow the seasonal extraction of sand and gravel from dry upland areas under certain conditions (but has been found to be unnecessary); and 2) PLN2018-00010, the addition of a Sustainable Salmon Harvest Goal policy to the CompPlan.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Report, Proposed Resolution, Exhibit A - CP Ch. 10 Environment, Exhibit B - CP Ch. 11 Shorelines, Exhibit C - CP Ch. 8 MRL, Exhibit D - WCC Title 23, Exhibit E - WCC Title 22, Exhibit F - WCC 16.16, Exhibit G - SMP Map, Exhibit H - Public Comments, Exhibit I - Technical Memorandum, Exhibit J - Restoration Plan Addendum, Exhibit K - DOE Initial Determination, Exhibit K, Att. 1 - Changes, Exhibit K, Att. 2 - Public Comments

Whatcom County Planning & Development Services Staff Report

Shoreline Management Program Periodic Update 2020

I. File Information

File #: PLN2020-00006, PLN2019-00011, & PLN2018-00010

File Name: Shoreline Management Program Periodic Update 2020

Applicant: Whatcom County Planning and Development Services (PDS)

Project Summary: Periodic update of Whatcom County's Shoreline Management Program, which includes amendments to the Whatcom County Comprehensive Plan (shoreline and other policies), WCC Titles 23 (shoreline regulations) and 22 (permitting procedures), WCC Chapter 16.16 (critical areas regulations), and the official Shoreline Map. A list of proposed amendments, and how the draft addresses them, is attached. Additionally, the project addresses Council's docketed items 1) PLN2019-00011, a directive to amend the CompPlan and codes to allow the seasonal extraction of sand and gravel from dry upland areas under certain conditions (but has been found to be unnecessary); and 2) PLN2018-00010, the addition of a Sustainable Salmon Harvest Goal policy to the CompPlan.

Location: Countywide.

Staff Recommendation: Approve.

II. Background

Whatcom County (County) is undertaking a periodic review of its Shoreline Management Program (SMP), as required by the Washington State Shoreline Management Act, RCW 90.58.080(4). The Shoreline Management Act (SMA) requires each SMP be reviewed, and revised if needed, on an eight-year schedule established by the state Legislature. The review ensures the SMP stays current with changes in laws and rules, remains consistent with other County plans and regulations, and is responsive to changed circumstances, new information and improved data.

The County adopted its current SMP in 2007 (Ordinance No. 2007-017; approved by Ecology in 2008) through a comprehensive update process, which included an inventory and characterization of shoreline land use and ecological conditions (otherwise known as the "baseline condition"), a shoreline restoration plan, and an evaluation of cumulative impacts to ensure implementation of the SMP would result in no net loss of shoreline ecological functions.

Since then, the Council has amended the SMP numerous times, though those amendments were fairly minor in nature, addressing specific issues. The SMP was most recently amended in 2019 to adopt by reference the 2017 Critical Areas Ordinance (CAO).

Periodic Update Requirements

The primary requirement of the periodic update process is to ensure that the SMP remains consistent with updates to the legislative requirements of the SMA. The Washington State Department of Ecology

(DOE) provides a list of legislative amendments which have taken effect between 2007 and 2017 as a Periodic Review Checklist.

The periodic update also provides an opportunity to review the SMP for consistency with the County's Comprehensive Plan and development regulations, including critical areas regulations. The County's SMP regulates critical areas in the shoreline jurisdiction by adopting by reference as part of the SMP the County's CAO as adopted in 2017 (Ordinance No. 2017-077) and codified in Chapter 16.16 of the WCC.

The County's Comprehensive Plan and other development regulations were also reviewed for consistency with the SMP, and amendments are being proposed to maintain consistency.

The periodic review process also represents an opportunity to revise and improve the overall functionality, clarity, and usability of the SMP for both the public and County staff. This includes clarifying permit processes and requirements and improving the overall organization and clarity of the documents. The majority of amendments shown in the documents are to achieve this goal.

Note that this periodic update is not required to: re-evaluate the ecological baseline that was established as part of the 2007 comprehensive update; extensively assess no net loss criteria other than to ensure that proposed amendments do not result in degradation of the baseline condition; or change shoreline jurisdiction or environment designations, unless deemed appropriate and necessary. And doing so was not included in the scope or budget for this update, so staff has not undertaken any amendments that would require such actions. A link to those 2007 documents can be found below under "Attachments."

Project Scope

In starting this project, staff compiled ideas for amendments from various sources (see Public Outreach, below) and compiled them into a list that the Planning Commission and Council reviewed and adopted as the "Scoping Document." This set the "bookends" for what staff would work on (and by corollary, what we would not work on). It contains a list of 22 topic areas, with 68 specific issues to address. A link to that document can be found below under "Attachments."

Staff understands that through the review process other ideas may arise, but if they are big issues that need a lot of work to accomplish, we will not be able to take them on and meet our update deadline of June 30th or stay within budget.

Public Outreach

The County has provided multiple opportunities for public participation throughout the process using a variety of communication tools to inform the public and encourage participation. This included our SMP Update website (<http://www.co.whatcom.wa.us/3097/Shoreline-Master-Program-Periodic-Update>), a list-serve, news releases, public notices, open houses, and public work sessions with the Planning Commission and County Council.

The early months of the project were used to gather input and outline the extent of the review; three public open houses were held in different parts of the County to illicit amendment ideas¹. Both the Planning Commission and the County Council then reviewed and adopted a final scope of potential amendments based on input from staff, the public, local jurisdictions, tribes, and other stakeholders.

Based on that scope, County staff and consultants drafted amendments. These draft amendments were issued for a 30-day public review period from August 18 – September 18, 2020, before the Planning

¹ Note: Though we had planned on holding three additional open houses to present the draft to the public, due to the COVID-19 pandemic we had to cancel those and rely on electronic review.

Commission's work sessions. Prior to the Planning Commission's hearing the revised amendments were reissued for another 30-day public review period, from March 12 – April 12, 2021.

Planning Commission Review

Between October 2020 and April 2021 the Planning Commission held nine public work sessions to review the draft amendments. After a second 30-day public review period they then held a joint Planning Commission/Department of Ecology public hearing on April 22, 2021.

County Council/Department of Ecology Review

Staff expects that the Council will hold multiple work sessions and an additional public hearing prior to adoption. By state law, the SMP update was supposed to be adopted by June 30, 2020; however, as a DOE grant recipient (and in part due to the pandemic) our official deadline is now June 30, 2021. Staff anticipates that Council will provisionally adopt the update via resolution forwarding it to DOE for their final review and approval. After we receive DOE's approval, Council will then need to adopt an ordinance adopting and effecting the update. If the anticipated schedule is kept, the revised SMP should become effective sometime this Fall.

Attachments

To Review (provided in your packet):

- Exhibit A – CompPlan Ch. 10 Environment
- Exhibit B – CompPlan Ch. 11 Shorelines
- Exhibit C – CompPlan Ch. 8 Marine Resource Lands
- Exhibit D – WCC Title 23 Shoreline Regulations
- Exhibit E – WCC Title 22 Land Use & Development
- Exhibit F – WCC 16.16 Critical Areas Regulations
- Exhibit G – Shoreline Map
- Exhibit H – Table of public comments, with staff responses
- Exhibit I – No Net Loss Addendum
- Exhibit J – Shoreline Restoration Addendum
- Exhibit K – Department of Ecology Initial Determination
 - K.1 – Required and Recommended Changes w WC responses
 - K.2 – Synopsis of Public Comments

Background Documents:

- 2020 SMP Update Scoping Document
- Materials from the 2007 Comprehensive Update:
 - Vol. 1 - Inventory and Characterization Report
 - Vol. II - Scientific Literature Review
 - Vol. III - Restoration Plan
 - Vol. IV - Cumulative Effects Analysis

All documents are available on PDS's SMP Update webpage at <http://www.co.whatcom.wa.us/3119/SMP-Update-2020-Documents>.

III. Amendments

The proposed amendments are found in Exhibits A through G. Please refer to those attachments; explanations are provided therein. Following, however, is a list of proposed policy changes.

Scoped Amendments

This is the list of items Council directed staff to address, and how we did. Topic #s refer to the topic number assigned in the Scoping Report.

Topic #1, Consistency with State law (required amendments)

- a) **Revise language to cite updated substantial development cost threshold or to rely solely on reference to WAC 173-27-040 for exemptions to substantial development permitting.**

Every five years the Office of Financial Management (OFM) recalculates the dollar threshold for projects qualifying as exempt from having to obtain a substantial development permit. Thus, in §22.07.020(B)(1) (Exhibit E), we have updated the dollar amount to the most recent (2017) OFM calculation of \$7,047. Additionally, we have revised the definition of “substantial development” in §23.60.190 to better meet the state definition (Exhibit D).

- b) **Revise the definition of “development” to clarify that development does not include dismantling or removing structures.**

The definition of “development” has been updated to meet DOE guidelines (Exhibit D, §23.60.040(6)).

- c) **Add reference to statutory exceptions to local review to the SMP. Revise or remove existing references to remedial actions and projects certified pursuant to RCW 80.50 to clarify their status as exceptions to local review under the SMA.**

The requisite language has been added (and revised) to §22.07.010(G) (Exhibit E) to clarify the referenced project types’ status as exceptions to local review under the SMA, and deleted from (old) §23.50.060 (Exhibit D).

- d) **Revise language to include a shoreline permit exemption for retrofitting existing structures to comply with the ADA or to rely solely on reference to WAC 173-27-040 for exemptions to substantial development permitting.**

The requisite language has been added as §22.07.020(B)(17) (Exhibit E).

- e) **Revise language in the SMP to cite the updated cost thresholds for dock construction or to rely solely on reference to WAC 173-27-040 for exemptions to substantial development permitting.**

§22.07.020(B)(8) has been revised to meet the statutory requirements (Exhibit E) and the cost threshold has been deleted from the definition of “substantial development” in §23.60.190 (Exhibit D).

- f) **Revise the SMP aquaculture provisions for consistency with WAC 173-26-241(3)(b).**

§23.40.050, in particular subsections (D)(1) and (G), has been revised to be consistent with WAC 173-26-241(3)(b) regarding commercial geoduck farming. (Exhibit D)

g) Revise the SMP to clarify that the effective date of SMP amendments is 14 days from notice of final approval by Ecology.

Both §23.05.090 (Effective Date) and §23.10.030(C)(2) (Administrative Duties) have been updated to clarify that the effective date of SMP amendments is 14 days from notice of final approval by Ecology (Exhibit D).

h) Review the SMP for consistency with 2003 SMP Guidelines and make any necessary changes.

Numerous amendments are proposed to make our SMP consistent with the SMP Guidelines; too many to list here. However, prior to submitting to DOE for approval, staff will complete the SMP checklist for their use.

Topic #2, Consistency with State law

a) Revise the SMP for consistency with Ecology's updated permit filing procedures.

The requirements for filing permits with DOE have been updated in §22.07.060 (Filing Shoreline Permits with the Department of Ecology) (Exhibit E).

b) Revise language to clarify that forest practices that involve only timber cutting are not SMA "developments" and do not require Shoreline Substantial Development Permits.

§23.40.110 (Forest Practices), subsection (A)(3) has been added to clarify that forest practices that involve only timber cutting are not SMA "developments" and do not require Shoreline Substantial Development Permits. (Exhibit D)

c) Revise language in §23.50.040 to clarify that the SMA does not apply to lands under exclusive federal jurisdiction.

Subsection (E)(1) has been added to §23.10.020 (Applicability, which used to be §23.50.040) to clarify that the SMA does not apply to lands under exclusive federal jurisdiction. (Exhibit D)

d) Update definitions to include distinct definitions for "nonconforming use," "nonconforming structure," and "nonconforming development" in accordance with WAC 173-27-080.

The definitions of "nonconforming lot" (§23.60.140(5)) and "nonconforming use" (§23.60.140(7)) have been amended, and a new definition of "nonconforming structure" (§23.60.140(6)) has been added, to conform to WAC 173-27-080. (Exhibit D)

e) Define special procedures for WSDOT projects per WAC 173-27-125.

Subsection (1)(c) has been added to §22.05.130 (Permit Review Time Frames) to define special procedures for WSDOT projects. (Exhibit E)

f) Incorporate a reference to WAC 173-27-215 for criteria and procedures for instances in which a shoreline restoration project creates a shift in OHWM.

A reference to WAC 173-27-215 for criteria and procedures for instances in which a shoreline restoration project creates a shift in OHWM has been added as §23.40.180(A)(3) (Restoration and Enhancement) (Exhibit D).

g) Revise definition of "Floodway" for complete consistency with Ecology's recommended language.

The definition of "floodway" has been amended to be consistent with DOE's recommended language. (§23.60.060(21), (Exhibit D))

h) Update the list and maps of streams and lakes that are in shoreline jurisdiction as necessary.

The list of waters that are in the shoreline jurisdiction has been revised in §23.20.010(B) (Shoreline Jurisdiction), using the language from the WAC 90.58.030 (2)(d). (Exhibit D)

i) Revise the SMP to include the required provisions in WAC 90.58.140(12).

§23.40.080 (Dredging and Dredge Material Disposal), subsection (B)(4)(b) has been added to clarify that dredge material disposal at an open water disposal site approved through the Dredged Material Management Program (RCW 79.105.500) is allowed and shall not require a shoreline permit. (Exhibit D)

Topic #3, Consistency with WCC Ch. 16.16 (Critical Areas)

a) Ensure Council changes in Ch. 16.16 regarding standards for view preservation are reflected in the SMP.

§16.16.235(5) (Activities Allowed with Notification) of the critical areas regulations (Exhibit F) allows for view corridors to be created and maintained (though certain restrictions apply). Subsection (L) has been added to §23.30.030 (Views and Aesthetics) (Exhibit D) that acknowledges and cross-references this allowance (except for in the Natural shoreline environment).

Topic #4, Consistency with Land Use procedures (Title 22)

a) Update SMP to align with recently adopted Title 22 permit procedures.

In keeping with placing all land use permitting procedures in one place (Title 22) started a couple of years ago, all shoreline permitting procedures in Title 23 (Exhibit D) are being moved to Title 22 (Exhibit E). Where processes overlap with PDS's other project permit types, we refer to and rely on (slightly modified) existing language (Ch. 22.05). However, shoreline permits also have requirements unique to them, so have supplemented the processing rules with a new Ch. 22.07 (Additional Requirements for Shoreline Permits and Exemptions).

Topic #5, Consistency with Shoreline Management Act (RCW 90.58) and 2003 SMP Update Guidelines (WAC 173-26)

a) Clarify permit review no net loss analysis

The primary regulations ensuring no net loss are:

- §23.10.040(A) (Code Interpretation) requires that the regulations be interpreted to allow development only when a proposal is "designed, constructed, and/or mitigated to provide no net loss of or a net lift to ecological functions and ecosystem wide processes." (Exhibit D)
- §23.30.010(B) (Ecological Protection) requires that "any unavoidable impacts shall be mitigated to meet no net loss of ecological function and ecosystem-wide processes." (Exhibit D)
- §23.60.140(4) (Definition) defines what no net loss means. (Exhibit D)
- §16.16.250(2) (Critical Areas Review Process) requires that applicants demonstrate no net loss to the Director's satisfaction in order to approve a critical areas review (and thus, a project permit). (Exhibit F)
- §16.16.260(C) General Mitigation Requirements allows for alternative mitigation options in order to provide the greatest ecological benefit... to achieve no net loss of ecological functions. (Exhibit F)
- §16.16.260(G) requires that mitigation plans demonstrate no net loss. (Exhibit F)

However, the term is also used in numerous other sections as a reminder of this requirement.

b) Clarify development mitigation requirements.

The mitigation standards have been clarified in the following sections as described:

- §16.16.260 (General Mitigation Requirements):
 - Subsection (B) now contains text describing what information the Director may use in determining the extent and type of mitigation required. This text had been found repeated in various Articles of Ch. 16.16, so we've moved it to the overall mitigation section.
 - Subsection (C) is a new policy that will allow for off-site mitigation when it's better for the environment. In the past several years of processing permits, staff has found that the best overall solution is not necessarily "on-site and in-kind" mitigation, since sometimes there's not enough room, or that the mitigation is in a place that can't be guaranteed to remain after the initial 5-year monitoring period. Under this new policy, though the preference is still for "on-site and in-kind" (subsection (1)), off-site and in-kind mitigation may be allowed when the applicant demonstrates that greater biological and/or hydrological functions and values will be achieved (subsection (2), or on-site and out-of-kind mitigation may be allowed when the applicant demonstrates an ecological uplift of biological and/or hydrological functions and values will be achieved (subsection (3). Subsections (4) and (5) also point to our already existing use of Alternative Mitigation Plans and Mitigation Banking.
 - Like subsection (B), subsections (D) and (E) have been moved from the more specific critical areas rules (habitat conservation areas) to the more general so as to apply more broadly.
 - Subsection (G)(3) has been moved from §23.30.010 (Ecological Protection). This text puts the burden on the applicant "demonstrate that all reasonable efforts have been taken to provide sufficient mitigation such that the activity does not have significant adverse impacts and results in no net loss of shoreline and critical area ecological functions." Since WCC Ch. 16.16 (Critical Areas) is considered a part of the Shoreline Management Program, staff thought it more fitting that all the rules for mitigation plans be in one place.
- §16.16.680 (Wetlands – Mitigation Standards)
 - Certain sections that we moved to §16.16.260 (General Mitigation Requirements) have been deleted, since the general now covers the specific.
 - To account for temporal loss of functions, in subsection (C) staff is proposing to amend the wetland buffer² mitigation ratio from a standard 1:1 (subsection (C)(1)) to a range of ratios depending on when the mitigation is implemented (subsection (4)) (including at a double ratio for those who don't initially get permits (subsection (c)) and the mitigation is provided long after the impact. This section now mimics the HCA mitigation standards (§16.16.760(E)(3)).
- §16.16.740 (Habitat Conservation Area Buffers). Apart from the clarifying amendments, staff is proposing to modify:
 - Subsection (B) (Habitat Conservation Areas Buffer Widths), which includes Table 4. The mitigation schema in Table 4 moves us from an older system of classifying water types and

² Note that the ratios for *wetland* mitigation (Table 2, which are from DOE guidance) are not proposed for amendment.

- buffer widths to the newer WDFW water-typing system. Though we had already adopted this newer system in identifying surface waters of the state (16.16.710(C)((1)(a)), we had not followed through on using that nomenclature for the various types' buffer widths (the table didn't match the text). Table 4 corrects this. The buffer widths themselves are the same except for Type S – Freshwater. It is currently 150 feet, but staff is proposing to increase it to 200 feet, which is the federal court's recommended width based on *National Wildlife Federation v. FEMA* (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472).
- §16.16.760 (Habitat Conservation Areas – Mitigation Standards)
 - Certain sections that we moved to §16.16.260 (General Mitigation Requirements) have been deleted, since the general now covers the specific.
 - We have added subsection (D) as a reminder to applications that the Army Corps of Engineer Regional General Permit 6 for inland marine waters may apply to their project(s). RGP-6 is a permit issued by the Corps that authorizes the construction of new residential in- and overwater structures in inland marine waters of Washington State while meeting the Endangered Species Act, though it has conditions on the construction.
 - Like with wetland buffer mitigation, we have added subsection (E)(3), doubling the mitigation ratio for those who don't initially get permits (subsection (c)) and the mitigation is provided long after the impact.
 - §16.16.640 (Wetland Buffer Modification) and §16.16.745 (Habitat Conservation Area Buffer Modification). In Articles 6 (Wetlands) and 7 (Habitat Conservation Areas) staff is proposing to combine their respective buffer modification rules into one section for each Article, each covering the types of buffer modifications allowed (increase, averaging, reduction, and variance). For wetlands, we have also modified some of the text to be consistent with DOE guidance (Wetlands in Washington State, Volume 2, Appendix 8C, updated 2018).

c) Align appeal procedures with State statutes.

Subsection (3) has been added to §22.05.160 (Appeals) to align the County's shoreline permit appeals process with the state statutes. (Exhibit E)

d) Shoreline permit review (Exemption, Substantial, Conditional Use, or Variance) should reflect State statutes and level of review required.

The rules for shoreline permit review have been updated to meet state standards in Ch. 22.07. (Exhibit E)

e) Align Use standards with State statutes.

Staff is proposing numerous amendments throughout Ch. 23.40 (Shoreline Use and Modification Regulations) that we believe better aligns them with State statutes, in most cases using the language from the WAC. Furthermore, in the existing code Table 23.100.010 is fairly meager and many uses allowed or prohibited are included only in the text of the various use and modification categories, making it difficult to find them all. We have updated that table as Table 1 Shoreline Use by Environment Designation and moved all allowances and prohibitions from the text to the table, hopefully making it easier to see what one can or can't do in the various environment designations.

f) Incorporate improved permit streamlining for priority salmon recovery projects

§22.07.020 (Exemptions from Shoreline Substantial Development Permits) subsection (B)(16) already exempts projects whose primary purpose is to improve fish or wildlife habitat or fish passage. (Exhibit E)

Topic #6, Climate Change/Sea Level Rise

a) Develop and/or strengthen policies regarding climate change/sea level rise, including the incorporation and use of new data (as it becomes available), to review and revise, if warranted, shoreline use regulations.

Chapter 10 of the CompPlan (Exhibit A) already contains a section on Climate Change (starting on page 10-8), including Goal 10D and Policies 10D-1 through 10D-10. However, these are aimed at how the County should respond overall and are not specific to the shoreline itself.

There is no requirement to address climate change or sea level rise in the state statutes, including the Shoreline Management Act (SMA). Nonetheless, Council's direction through the Scoping Document was to:

"Develop and/or strengthen policies regarding climate change/sea level rise (CC/SLR), including the incorporation and use of new data (as it becomes available), to review and revise, if warranted, shoreline use regulations."

The direction did not address regulations. But based on Council's direction staff has developed seven new policies specific to our management of the shoreline in light of anticipated impacts due to climate change (Exhibit B, C/P Ch. 11, Policies 11AA-1 – 11AA-7), including proposed Policy 11AA-5, which reads:

"Whatcom County should periodically assess the best available sea level rise projections and incorporate them into future program updates, as relevant"

This policy specifically addresses *"the incorporation and use of new data (as it becomes available), to review and revise, if warranted, shoreline use regulations."*

We understand that some folks would like to see more directive policies³, as well as actual regulations⁴; however, before adopting (and then implementing) something along those lines, we'd need to know the details of likely sea level rise (location, elevation, magnitude, etc.). As we mentioned when the Commission and Council were scoping this project, staff anticipates this year the completion of the CoSMoS model, on which the City of Bellingham and Whatcom County Public Works are working, which should provide the Best Available Science to Whatcom County. The Department of Ecology has also advised us that any such regulations should be built on data, which is what PS-CoSMoS will be providing. Furthermore, once the data is available, we should perform vulnerability and risk assessments to see what kind and where the problems might be, and update our shoreline inventory and characterizations. Without such science, we would be open to challenges. The policies being introduced would set us up for developing regulations once this model is completed.

It should also be noted that in reviewing development proposals, Planning and Development Services already requires structures to be built above the anticipated flood/sea level rise stage through the County's critical area (i.e., geohazard/tsunami) and flood regulations.

3 See Exhibit H, Public Comments FW/WEC01, FW/WEC02, WCPW07, WCPW08, RES03, RFW02, RFW03, RFW04, RFW11, RFW17, P6605, DK01, AC01, & PR03.

4 See Exhibit H, Public Comments FW/WEC12, FW/WEC21, WCPW08, WCPW09, WCPW10, & RES03.

Topic #7, Definitions

a) Add definitions for common words with a specific meaning in the SMP.

In Ch. 23.600 (Exhibit D) we added many definitions of words that were undefined, amended others to meet current standards and/or to be consistent amongst Titles, and deleted those words already defined elsewhere but added the sentence to §23.60.005, “Any words not defined herein shall be defined pursuant to WWC Chapter 16.16 (Critical Areas) or Titles 20 (Zoning) or 22 (Land Use and Development), or their common meanings when not defined in code.”

b) Add definitions for regional, local, and accessory utilities. Ensure consistency with Zoning.

Said definitions have been added to §23.60.210(6). (Exhibit D)

c) Define a single use dock and joint use dock.

“Shared moorage” was already defined in §23.60.190. Additionally, definitions of all moorage types have been added to §23.60.130(17) “Moorage Structure.” (Exhibit D)

Topic #8, Habitat

a) Reference WDFW and DNR’s Shore Friendly Program

Staff has amended C/P Policy 11I-2 (Exhibit B) to reference this program as an example of “voluntary and incentive-based public and private programs.”

b) Consider strengthening ecological connectivity and wildlife corridor requirements.

§23.40.030 (General Shoreline Use and Modification Regulations), subsection J (which is existing language moved from elsewhere), already requires that buildings, fencing, walls, hedges, and similar features shall be designed, located, and constructed in a manner that does not preclude or significantly interfere with wildlife movement to or from important habitat areas.

Apart from all the existing rules about maintaining connectivity in WCC Ch. 16.16 (Critical Areas) (Exhibit F), new rules to strengthen ecological connectivity and wildlife corridor requirements in that document include:

- In §16.16.225 (General Regulations), new subsection (C) has been added, requiring development proposals to maintain ecological connectivity and habitat corridors;
- In §16.16.255 (Critical Areas Assessment Reports) new subsection (C)(3) has been added, strengthening the requirement that connectivity be addressed in assessment reports;
- In §16.16.640 (Wetland Buffer Modification), subsection (A) allows the Director to increase wetland buffers to protect wetland functions and provide connectivity to other wetland and habitat areas;
- In §16.16.745 (Habitat Conservation Area Buffer Modification) subsection (A)(2) allows the Director to increase wetland buffers to protect wetland functions and provide connectivity when a Type S or F waterbody is (among other things) located within 300 feet of another Type S or F water body, a fish and wildlife HCA, or A Category I, II or III wetland;

c) Consider ways to improve protections for salmon and forage fish habitat.

Policy 11LL-4 in C/P Ch. 11 (Exhibit B) is proposed to be amended in support of this task by adding additional critical saltwater habitats to the list of where moorage structures ought to be avoided.

And while the protection of fish and wildlife habitat is already required throughout various sections of Title 23 (Exhibit D), additional language has been added in:

- §23.30.040 (Vegetation Management) has been amended to strengthen and better tie the protection and/or revegetation of native shoreline vegetation to the protection of salmon and forage fish habitat.
- In §23.40.060 (Marinas and Launch Ramps) (Exhibit D), subsection (E)(8) has been added to the standards requiring that boat launches be designed to minimize impacts to critical saltwater habitats.
- In §23.40.140 (Mining):
 - Subsection (A)(3) now states that “Preference shall be given to mining proposals that result in the creation, restoration, or enhancement of habitat for priority species.”
 - Subsection (A)(6) has been added to prohibit “motorized or gravity siphon aquatic mining or discharge of effluent from such activity to any waters of the state that has been designated under the endangered species act as critical habitat, or would impact critical habitat for salmon, steelhead, or bull trout” pursuant to RCW 90.48.615.
 - Subsection (B)(1) has been added for consistency with WAC 173-26-241(3)(h), prohibiting mining waterward of the ordinary high-water mark of a river if it would cause a net loss of ecological functions of the shoreline.
- In §23.40.150 (Moorage Structures):
 - Subsections (A)(6) and (7) (moved from the existing Boating Facilities section) prohibits moorage structures in certain shoreline habitats.
 - Subsections (B) & (C), having to do with construction and locational standards for moorage structures have been amended and augmented to meet current state and federal habitat protection requirements and guidance.
- In §23.40.190 (Shoreline Stabilization), subsection (A)(10) has been amended to prohibit hard shoreline stabilization in jurisdictional shoreline streams on estuarine shores, in wetlands, and in salmon spawning areas, except for the purpose of fish or wildlife habitat enhancement or restoration.
- In §23.40.220 (Utilities), subsection (B)(5)(a) has been added, require that hydropower facilities shall be located, designed, and operated to minimize impacts to fish and wildlife resources.

Similarly, while the protection of fish and wildlife habitat is already required throughout various sections of WCC 16.16 (Critical Areas) (Exhibit F), in §16.16.255 (Critical Areas Assessment Reports) new subsection (C)(3) has been added, strengthening the requirement that impacts to salmon and forage fish habitat be address in assessment reports to improve protections for salmon and forage fish.

d) Clarify functional disconnect standards for protection of Fish & Wildlife Habitat Conservation Areas

The term “functional disconnect,” which many people have interpreted differently and is not widely used anymore, has been eliminated in §16.16.630(B) (Wetland Buffers) and §16.16.740 (Habitat Conservation Area Buffers), which now say, “Buffers shall not include areas of an existing, legally established substantially developed surface.”

Topic #9, Layout and Structure of the SMP

a) Reorganize the SMP, putting the background information, discussions, and goals and policies into the Comprehensive Plan as a chapter

One of the biggest changes was to reorganize the SMP to shorten it and make it easier to use. One of the ways we’re doing this is to move the SMP policies into the Comprehensive Plan. The SMP was already adopted by reference as part of the CompPlan; it just wasn’t contained in it. However, in

modern code construction, code normally doesn't contain policies (or appendices) as our current Title 23 does. Staff is proposing to create a new Chapter 11 of the CompPlan entitled "Shorelines" (Exhibit B). We have moved all the SMP policies from Title 23 (Exhibit D) as well as related policies from Chapter 10, Environment (Exhibit A), to this chapter, putting all the shoreline policies into one place. Thus, the amendments to Chapter 10 are mostly showing the deletion of policies that are moving to Chapter 11.

Most of the changes shown in C/P Ch. 11 (Exhibit B) are also in support of this effort. We have moved everything from Title 23 that appeared to be policy (rather than regulation) into this chapter. We've also put it in the same format as other chapters of the CompPlan, struck redundancies, and corrected grammar and tenses. There are, however a few proposed new policies and/or amendments that we discuss below.

Another major organizational change is to move all permitting regulations to WCC Title 22 (Exhibit E). Title 22 was created a few years ago to eventually contain all of the County's procedures for land use permitting and code administration. However, moving sections to this Title is continuing to occur as we progress through various code amendments (e.g., the annual code scrub, upcoming code enforcement amendments, this SMP update, etc.).

Similarly, since WCC Chapter 16.16 (Exhibit F, Critical Areas) is adopted as part of the SMP, they are to be read together, and where there are redundancies between Ch. 16.16 and Title 23, we are proposing to delete those redundancies in Title 23 (Exhibit D).

b) Simplify the language as much as possible and remove redundancies

See response to 18.a.

Topic #10, Nonconforming

a) Ensure consistency with Zoning, CAO, and SMP regarding nonconforming uses and structures.

Staff has rewritten Chapter 23.50 (Nonconforming Uses, Structures, and Lots) to conform to the latest DOE guidance addressing nonconforming uses, development, and lots as separate issues. Additionally, definitions for each term have been added to §23.60.140. (Exhibit D)

In §16.16.275 (Nonconforming Uses, Structures, and Lots) (Exhibit F) two amendments are proposed to align this chapter with Title 20 (Zoning) and Title 23 (SMP):

- In subsection (B), the time within which an intentionally abandoned *nonagricultural* nonconforming use or structure may maintain its nonconforming status is changed from 5 years to 12 months, the same timeframe in Title 20 (Zoning).
- In subsection (E), a new (1) is being added, stating that "intentional demolition or removal is not a casualty," as in Title 23 (SMP).

b) Add standards for nonconforming structures to meet current construction standards.

In §23.50.020 (Nonconforming Structures) (Exhibit D):

- (A)(4) now allows legal nonconforming non-overwater structures to be maintained, repaired, renovated, or remodeled to the extent that nonconformance with the standards and regulations of this program is not increased, *provided that a nonconforming structure that is moved any distance must be brought into conformance with this program and the Act.*
- (A)(5) allows overwater nonconforming structures to be maintained or repaired to the extent that nonconformance with the standards and regulations of this program is not increased; *provided that when replacement is the common method of repair, the replaced components shall meet the construction and materials standards of §23.40.150 (Moorage Structures).*

c) Address nonconforming expansion dimensional standards.

§23.50.010 (Nonconforming Uses), subsection (B) now clearly states that the expansion, alteration, and/or intensification of a nonconforming use is prohibited, and §23.50.020 (Nonconforming Structures), subsections (E) & (F) clearly address when and how expansion of nonconforming structures are handled. (Exhibit D)

d) Clarify administratively approved single-family dimensional standards.

To §23.50.020 (Nonconforming Structures), subsection (F), we have added clear standards as to how to address the enlargement or expansion of nonconforming single-family structures. (Exhibit D)

Topic #11, Overwater Structures

a) Add dimensional standards for overall square footage.

§23.40.150 (Moorage Structures) has been completely revamped to meet current state and federal standards. To meet this scoped recommendation, thorough design and dimensional standards, including for overall square footage, have been added to subsection (B) (Exhibit D).

b) Add shared moorage standards.

Dimensional standards for shared moorage have been added to §23.40.150 (Moorage Structures), subsection (B). Subsection (D) prioritizes shared moorage over individual use structures. And subsection (F) provides additional standards for shared moorage. (Exhibit D)

Topic #12, Permitting

a) Consider simplifying utility repair and maintenance permitting.

In §16.16.235 (Activities Allowed with Notification), though subsection (B)(2) already allows maintenance and repair of infrastructure (including utilities), it has been amended to be clearer by adding the term “utility corridors.” Additionally, a new subsection (B)(3) has been added regarding utility installation.

b) Add a reference to the Swift Creek Sediment Management Action Plan so as to clarify permitting procedures for actions necessitated by this plan.

To §23.10.020 (Applicability) we have added subsection (H), which lists what activities the SMP does not apply to. Subsection (H)(1) applies to “Activities undertaken to comply with a United States Environmental Protection Agency Superfund-related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act (such as the Swift Creek Sediment Management Action Plan), or a Department of Homeland Security order that specifically preempts local regulations in the findings of the order.”

c) Single-Family Residential Development on Constrained Lots

Staff is proposing to redefine what and how **reasonable use exceptions and variances** are used and who decides them. Our Hearing Examiner has questioned our current schema, in particular why he isn’t the final decision maker, as the current code allows an administrative determination to be made *after* a quasi-judicial decision, and in the hierarchy of permitting, applicants should have to exhaust any administrative remedies before seeking a quasi-judicial decision. Staff is proposing that reasonable use exceptions be the last method of altering standards to allow reasonable economic use of constrained property, and that they be decided upon by the Hearing Examiner (see 16.16.270 Reasonable Use Exceptions). Under the proposed schema we would use (in hierarchical order):

- **Administrative Reduction/Average** – Staff would have the ability to administratively reduce or average a buffer by 25% if the impacts can be fully mitigated, though avoidance and minimization criteria are applied. This allows for flexibility in project design and road alignments. If this doesn't work, then...
- **Administrative Variance** – Staff would have the ability to administratively grant an administrative variance⁵ to reduce a buffer by 25-50% if the impacts can be fully mitigated and the variance criteria are met. If this doesn't work, then...
- **Hearing Examiner Variance** – The Hearing Examiner would have the ability to grant a variance from *any* dimensional standard by any degree if the impacts can be fully mitigated and the variance criteria are met. If this doesn't work, then...
- **Hearing Examiner Reasonable Use Exception** – The Hearing Examiner would have the ability to grant a Reasonable Use Exception to allow up to 2,500 square feet of impacts, and the homeowner would only have to mitigate what can actually fit on the property (which conceivably could be none).

In this schema, the degree to which one can vary standards while providing the least amount of mitigation moves up a level at each step, with the Hearing Examiner making the tougher decisions through a quasi-judicial process. This would return the reasonable use exception to truly the last effort of avoiding a taking.

However, to counter the additional time and cost of this process, staff is also proposing to create a new category of variances, called minor variances (16.16.273 Variances). They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number of cases having to go to the Hearing Examiner and cost less to the citizens of Whatcom County overall.

Note, too, that under the reasonable use rules, the Planning Commission is proposing to amend the maximum impact area to a range of "10% of the lot area or 2,500 square feet⁶, whichever is greater; provided that in no instance shall it exceed 4,000 square feet." Since the property would not need to fully mitigate, a smaller footprint is warranted. This returns the reasonable use exception to truly the last effort of avoiding a taking.

Topic #13, Public Access

a) Clarify standards for construction in the aquatic designation (work occurring in the water).

This issue had to do with what materials are allowed for structures built in contact with water (e.g., moorage structures). The list of such materials (untreated wood, concrete, approved plastic composites, or steel) are already found in §23.30.020(D) (Water Quality and Quantity), §23.40.125(E)(1)(e) (Cherry Point Management Area), §23.40.150(C)(2) (Moorage Structures), §23.40.210(B)(8) (Transportation), & §23.50.020(D) (Nonconforming Structures), with no distinction between galvanized or non-galvanized steel, as had been scoped. However, state law and guidance makes no such distinction, so the list has been unaltered. (Exhibit D)

⁵ This mechanism was created by Council in 2020 and is found in WCC 22.05.024 (Variances).

⁶ What it was prior to the 2017 Critical Areas update.

b) Add ADA standards consistent with federal statutes.

In §23.40.020 (Shoreline Bulk Provisions), subsection (G) (Uses Allowed in Buffers and Setbacks) (6), we have added language that allows stairs and walkways to exceed standard width requirements to meet ADA requirements. (Exhibit D)

In both §16.16.620 (Wetlands – Use and Modification) subsection (H) and §16.16.720 (Habitat Conservation Areas – Use and Modification) subsection (G)(1), text has been added to allow trails to exceed standard width requirements to meet ADA requirements. (Exhibit F)

c) Consider revising dimensions for stairs and walkways located within the shoreline or critical area buffers to accommodate public trails.

In §23.40.160 (Recreation), subsection (A)(6) has been added, directing applicants to WCC Chapter 16.16 (Critical Areas), which contains the standards for trails in critical areas (including the shoreline setback (i.e., HCA buffer). (Exhibit D)

In §16.16.325 (Landslide Hazard Areas – Use and Modification), a new subsection (A)(3) has been added to allow trails (meeting certain conditions) in landslide hazard areas. (Exhibit F)

In §16.16.620 (Wetlands – Use and Modification), subsection (H) (Recreation) has been amended to allow public trails to include viewing platforms, and to be closer than the outer 25 percent of the buffer “when necessary to provide wetland educational opportunities or for public health and safety,” and to be wider than the standard widths when necessary to meet ADA requirements. Corresponding amendments have also been made to 16.16.720(G)(1) (Habitat Conservation Areas – Use and Modification) (Exhibit F).

d) Consider amending trail location standards to allow trails to be located closer than in the outer 50% of a critical area buffer.

In §23.40.020 (Shoreline Bulk Provisions), subsection (G) (Uses Allowed in Buffers and Setbacks), we have added subsection (11) that allows passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails in the shoreline buffer. (Exhibit D)

In §16.16.620 (Wetlands – Use and Modification), subsection (H) (Recreation) has been amended to allow public trails to include viewing platforms, and to be closer than the outer 25% of the buffer “when necessary to provide wetland educational opportunities or for public health and safety,” and to be wider than the standard widths when necessary to meet ADA requirements. Corresponding amendments have also been made to 16.16.720(G)(1) (Habitat Conservation Areas – Use and Modification) (Exhibit F).

Topic #14, Shoreline Designations

a) Consider changing the shoreline designation for certain, more urban parks to an urban designation.

It turned out that changing shoreline (environment) designations on certain properties would have entailed updating the 2007 shoreline inventory and characterization reports, which was beyond the scope of this periodic update.

Topic #15, Shoreline Jurisdiction and Environment Designation Map

a) **Revise the Shoreline Jurisdiction and Environment Designation map to conform to the latest FEMA FIRM maps**

The Shoreline map has been updated to include all areas of the FEMA floodway and floodplain. This primarily widened the Resource designation on the Nooksack from Ferndale to Lynden and portions of the South Fork of the Nooksack though narrowed it in some areas. Floodway and Floodplain are differentiated in the database. It should be noted that the actual shoreline jurisdiction has not changed, as that is set by state law and our code (§23.20.010), but the map now more accurately displays the jurisdiction.

A few other changes have been made as well. These include:

- UGA and City boundaries have been updated.
- On the Lummi Nation, parcels that have been put under Tribal jurisdiction since the last update were updated with the “Tribal” shoreline designation.
- Designations were adjusted, where necessary, to match the updated and spatially corrected parcel boundaries. This was just a housekeeping task and no designations were changed.
- Shoreline designation breaks (thick black bars) have been removed from the map as they made it difficult to read.
- The complex of beaver ponds north and south of H Street Road between Sunrise and Markwork Roads (NE of Lynden) were added to the Conservancy designation. These ponds have grown in size and now surpass the 20-acre threshold for being a Water of the State. Since these ponds were identified and characterized in the 2007 Characterization report, we did not need to update that report; the data is still valid.
- At the request of the owners of APN 390302-428076-0000, 390302-485039-0000, and 390302-440200-0000 we have removed the Resource environment designation from a mining pond located to the NW of the intersection of E. Pole X Everson-Goshen Roads, just southeast of Everson. This designation was applied during the last SMP update, but has been determined to have been an error. Though it is a waterbody greater than 20 acres, it is a mineral extraction pond and DOE guidance is that such ponds do not qualify as a Water of the State until mineral extraction is complete and the restoration plan is realized. Once that happens, it automatically is designated as Conservancy under state law and our SMP. The County would then have 3 years to amend the map and finalize its designation.

Topic #16, Shoreline Modifications

a) **Review for consistency with the 2SHB 1579 regarding HPAs, and with State guidelines regarding prioritizing living shorelines over hardscape solutions.**

In §23.40.010 (Shoreline Use and Modification), Table 1 (Shoreline Use by Environment Designation), the various types of stabilization have been broken out into their respective types. Bioengineering Approaches & other Soft-Shore Measures are shown as permissible, while hardscape solutions are either prohibited or require a Conditional Use Permit, and then allowed only when necessary for shoreline restoration or to support a water-dependent use that cannot be located elsewhere. Then throughout §23.40.190 (Shoreline Stabilization) language has been added to prioritize soft- over

hardscape stabilization measures, in particular in subsection (A)(5), where an order of preference has been established. (Exhibit D)

b) Consider allowing interpretive, wayfinding, safety, and park identification signs, based on park standards.

In §23.40.020 (Shoreline Bulk Provisions), subsection (G) (Uses Allowed in Buffers and Setbacks) (10) (Signs) we have added language that allows interpretive, wayfinding, and park identification signs on publicly owned park properties. (Exhibit D)

Topic #17, Shoreline Uses

a) Revise as necessary any SMP policies or regulations pertaining to the Cherry Point area as directed by Council.

In 2018 the Council started a process of amending the policies and regulations related to fossil fuel facilities in the Cherry Point Management Area. The Council hired consultants specifically for this task and it is principally being administered under a separate process. Their amendments affecting C/P Ch. 2 (Land Use), WCC Ch. 16.08 (SEPA), WCC Title 20 (Zoning), and WCC Title 22 (Land Use & Development) have already been reviewed by the Commission. None of the Council's amendments to C/P Ch. 2, WCC Ch. 16.08, or WCC Title 20 affects the documents the Planning Commission reviewed as part of this SMP Update.

Their amendments to Title 22, however, have been incorporated into Exhibit E, and are being show as new as they are not yet adopted. We have also incorporated the Commission's recommended changes to this specific language, also flagged by comments in the document.

Their amendments also affect WCC Title 23 (Exhibit D) and (by way of this update) C/P Ch. 11 (Exhibit B). As we are proposing to do with the rest of the SMP policies, we're moving the Cherry Point Management Area policies from Title 23 to C/P Ch. 11 (Exhibit B). As such, they're not shown as new policies (i.e., no underline) in Exhibit B, but Council's proposed amendments to them are being show in strikeout/ underline. Other changes to Title 23 regarding this topic are flagged as Council-proposed language in §23.40.125 (Cherry Point Management Area). (Exhibit D)

b) Revise as necessary any SMP policies or regulations pertaining to sand and gravel extraction as directed by Council.

In 2019 the County Council placed the following proposal (PLN2019-00011) on the docket:

Amend the Whatcom County Comprehensive Plan and Whatcom County Code to allow the seasonal extraction of sand and gravel from dry upland areas located within the 1,000 year meander zone of the Nooksack River, provided that such extraction has no negative impact on salmon spawning habitat. The intent is to (a) reduce the conversion of land currently used for farming, forestry and wildlife habitat into gravel pits, and (b) safely remove some of the significant sediment load that enters the Nooksack River every year in an effort to reduce flooding and the need to build higher flood prevention berms along the river as the climate continues to change.

To carry out this directive we have tried to mimic the language of the WAC, eliminating language that is not required but adding (or retaining) required language. (§23.40.140 (Mining), Exhibit D)

This matter was forwarded to the Surface Mining Advisory Committee (SMAC) for their advice. At their June 26, 2019, meeting the SMAC reviewed this matter and found that no changes were necessary to

the SMP code in order to allow for extraction of sand and gravel from dry upland areas located within shoreline jurisdiction and/or the FEMA 100-year floodplain. Furthermore, it was confirmed that the lack of recent sand and gravel extraction within the Nooksack River shoreline jurisdiction/FEMA floodplain/floodway is primarily a function of the time and costs for studies associated with permitting and review at the state and federal level, compared to the economic return on investment.

At the federal level, the Endangered Species Act (ESA) is the primary law affecting this activity. It requires that any activities be done in such a manner as to not cause a “take” of any listed species, which also means protecting their habitat from impacts. At the state level, the Shoreline Management Act requires that there be no net loss of shoreline ecological functions and processes. As one can imagine, either of these requirements would make it difficult to make it easier to extract sand and gravel.

c) Ensure internal consistency with allowed uses in the code and the Use Table.

In the existing code, the allowances/permit type required for some uses are specified in Table 1 and others are sprinkled about the text, making it difficult to find whether something is allowed or not. So throughout Ch. 23.40 (Shoreline Use and Modification Regulations) we have removed any use allowances found in the text and expanded the table to include these (as well as other uses that hadn’t been specified). Thus, almost all rules about whether something’s allowed or not, and with what type of permit, are found in Table 1. There were also several footnotes that modified the table. We have replaced these footnotes with just one, telling the reader to look to the text for certain uses in certain environment designations, as there remain a few specific provisions in the text, typically stating that certain uses have caveats in certain environment designations. In short, we believe we have made things easier to find, and the text and the table should be internally consistent now.

d) Modify the accessory structure height standards.

In §23.40.020 Shoreline Bulk Provisions, subsection (E) (Height), two new subsections have been added. Subsection (4) would allow equipment necessary for the functions of water-dependent uses or the servicing of vessels to extend above the applicable maximum height limit provided in Table 1, provided that such structures shall be designed to minimize view obstruction. Subsection (5) would allow residential accessory structures that are not waterward of the primary structure to be built to the maximum height for the environment designation.

e) Add standards for retaining walls.

In §23.40.020 (Shoreline Bulk Provisions), subsection (G) (Uses Allowed in Buffers and Setbacks), we have added subsection (8) to allow retaining walls or similar slope stabilization structures, when associated with an approved shoreline use or development; and in (9) have clarified that retaining walls can exceed the standard 4-foot height limit for fences, walls, and hedges. (Exhibit D)

f) Update Memorandum of Understanding with Department of Archaeology and Historic Preservation.

Through this update process, staff was not able to actually update the MOU with DAHP, as that will take some time and involve many others. But based on the language in it, we are proposing some new policies to the cultural resources sections of both the Overall SMP Goals and Objectives (Exhibit B, page 11-9) and the General Policies (page 11-27) sections (see policies 11G-3, 11G-4, & 11X-9).

We are also proposing to revise the regulations in §23.30.050 (Cultural Resources) (Exhibit D). The existing regulations are full of rules about how reports are supposed to be done and what they need to contain. However, Department of Archaeologic and Historic Preservation (DAHP) now has standard

practices outlined in their guidance, and we are proposing to remove all of our extraneous rules and just refer to DAHP's standards; this cuts down on the amount of text considerably and ensures that practices and reports follow state standards. The proposed text has been collaboratively developed with us, DAHP, and the Lummi Nation Tribal Historic Preservation Office (LNTHPO).

That said, there are three policy issues posed by the revised text:

- Subsection (A)(1) reads:

Upon receipt of an application for a permit, exemption, or other approval for a proposed project, the County shall determine whether the project lies within 500 feet of a site known to *or could* contain a cultural resource based on the Washington State Department of Archaeology & Historic Preservation's (DAHP) Inventory of Cultural Resources.

Currently, regulations require applicants to prepare a cultural resources report (and adhere to any recommendations therein) if their project lies within 500 feet of a site known to contain a cultural resource based on the Washington State Department of Archaeology & Historic Preservation's (DAHP) Inventory of Cultural Resources. The LNTHPO has proposed that we insert the phrase "or could" in this sentence. They would like to be consulted on all projects within the shoreline, not just ones within 500 ft of a previously recorded site, as they believe they may have additional information regarding an area that is not included in the State's inventory. They would like an opportunity to review and comment on the report no matter what may be found. However, this would expand the scope beyond what we regulate now.

- Subsection (A)(4) reads:

Based upon consultation with DAHP and the affected Tribe(s), the Director may approve the report *with tribal concurrence* or reject or request revision of the conclusions reached and/or management recommendations when the assessment is inaccurate or does not fully address the cultural resource management concerns involved.

The LNTHPO recommends that we include the phrase "with tribal concurrence." This would mean that the Tribe would have to agree with a report before PDS could approve it.

Staff believes that requiring their concurrence runs contrary to the GMA's permitting requirements of expeditious review and issuance, as it could hold up projects while we're awaiting their concurrence. A simple fix may be to set a time limit for how long they have to respond.

- Subsection (A)(5) reads:

If the cultural resource report identifies the presence of a cultural resource, any permit issued shall be conditioned on meeting the approved report's management recommendations. *If no cultural resources are found, then the permit may be issued without conditions regarding cultural resources.*

The LNTHPO commented that an Inadvertent Discovery Plan (IDP) should be required regardless of whether cultural resources are found, as there are times when additional requirements are necessary (e.g., when there is a site documented just outside of the project area, monitoring may be recommended). However, this does go beyond what we do now and so raise it as a policy issue.

g) Clarify Forest Practice standards.

§23.40.110 (Forest Practices) has been updated to reflect the WAC provisions for Forest Practices in shorelines. (Exhibit D)

Additionally, the current Ch. 16.16 (Critical Areas) does not have guidance for Conversion Option Harvest Plans as allowed by WAC 222. For other permits this would allow for a limited removal of trees, while retaining larger trees to help with managing a riparian buffer. When development alters a functioning forested system some level of continued forest management is required (see 16.16.720(V)). To alleviate this issue, staff is proposing to add to 16.16.720 (Habitat Conservation Areas – Use and Modification) subsection (P). The section sets performance standards for removing timber in Habitat Conservation Areas (e.g., riparian areas) and would allow timber harvesting to occur within buffers while still retaining the HCA's functions. These standards vary by water type, and are tied to existing buffer conditions. This amendment is aimed at closing a loophole wherein applicants remove trees before applying for a development permit, which is when the CAO becomes applicable (except for Class IV Conversions, forest practices are not reviewable under the CAO).

h) Add temporary use standards.

This was a task staff had proposed, thinking we might be able to develop a temporary use permit for short-term uses. However, we could not find a good example from other jurisdictions, nor is there any guidance from Ecology. Thus, we determined it is probably best to review such uses at the time of a request for a temporary easement, temporary use permit, etc.

i) Clarify utility standards for regional, local, and accessory.

Under the existing code, the only categories for utilities are local or regional transmission lines, which has led some people to believe that utility installation, repair, or maintenance to single-family homes (accessory utilities) needs the same level of permitting and scrutiny as a power substation or regional transmission line.

In the proposed amendments to §23.40.010 (Shoreline Use and Modification), Table 1 (Shoreline Use by Environment Designation), utilities have been broken out into three categories: accessory, local, and regional. Each are now distinctly defined in §23.60.210(6), and have distinct permitting paths, depending on what environment designation they are located, making it clear that running an electrical line (or something similar) to a house is outright permitted.

Additionally, in §23.40.220 (Utilities) we have moved all the utility requirements that had been spread throughout in various sections into one, cohesive section.

j) Add standards for live-aboard vessels in marinas.

In §23.40.060 (Marinas and Launch Ramps) standards for live-aboard vessels have been added as subsection (F) (Exhibit D). Staff is also proposing to add Policy 11DD-13 to CompPlan Ch. 11 (Exhibit B) to support the proposed addition of standards to Title 23.

Topic #18, Shoreline Setbacks/ Riparian Management

a) Update vegetation conservation standards to prefer limbing over removal.

§23.30.030 (Views and Aesthetics) (Exhibit D), subsection (M) now points to the regulations in §16.16.235(B)(5) (Activities Allowed with Notification) (Exhibit F).

§16.16.235(B)(5) (Activities Allowed with Notification) has been updated to stress limbing over removal of trees to provide view corridors (Exhibit F).

b) Provide incentives to enhance Fish and Wildlife Habitat Conservation Areas (FWHCA).

This was another task staff had scoped. We had hoped to create an incentive for new single-family residential development to maintain and/or improve shoreline vegetation by allowing those who do so to have a reduced shoreline buffer. Unfortunately, we could not figure out a way of doing this without impacting existing homeowners' views. Furthermore, it would have required an update to the inventory and characterization background documents, which was not included in the scope or budget of the project.

Additionally, given that the shoreline is defined and regulated as a Habitat Conservation Area, theoretically we should not allow uses (other than water-oriented uses and single-family residences which are SMA 'preferred uses') within the shoreline, as they would necessitate vegetation clearing. However, we know that folks that have waterfront property want and expect to have access (for swimming, boating, relaxation, etc.) and recreational amenities near the shore (e.g., fire pits, kayak sheds, etc.), so we have added to 16.16.720 (Habitat Conservation Areas – Use and Modification) subsection (G)(4), which sets limits on how much of the shoreline can be cleared of vegetation for such uses and requires mitigation to offset the impacts so as to achieve No Net Loss.

c) Clarify setback standards for protection of views to and from the water.

To protect views of the shoreline from existing structures when new development is proposed, §23.30.030 (Views and Aesthetics) (Exhibit D), new subsection (B) now allows setbacks to be modified pursuant to WCC 23.400.020(D) (Shoreline Bulk Provisions, Setbacks, Common-Line Setback for Single-Family Residences). That section (incorporated from former Appendix F) allows for setbacks to be reduced or increased, depending on how existing homes are situated, to provide the greatest view opportunities for both the existing and new development (though when reduced, mitigation (i.e., planting of the shoreline setback) may be required).

To minimize impacts to views from the water, §23.30.030 (Views and Aesthetics) (Exhibit D), new subsection (C) also now allows the Director to require the planting of vegetation to mitigate the impacts.

Furthermore, §23.30.030 (Views and Aesthetics) (Exhibit D), new subsection (L) precludes new uses or development from substantially obscuring shoreline views within shoreline view areas or from existing residences on adjacent property.

Topic #19, Water Quality

a) Include language/policies about the importance of Lake Whatcom as the source of drinking water for most of the County and the water quality improvement plan (TMDL).

After reviewing the existing CompPlan, staff believes that it already addresses this issue sufficiently. In Chapter 10, under *Water Resources* (Exhibit A, page 10-11), subsection *Lake Whatcom Watershed Management* (pages 10-22 – 10-25) there are four pages of text describing Lake Whatcom's importance as a source of drinking water and the efforts the County (and City of Bellingham) are under taking to protect it. Under Goal 10-J alone there are 14 specific policies (Policies 10J-1 - 10J-14) regarding protecting Lake Whatcom, and there are numerous other, more generic goals and policies that deal with water quality protection more generically.

Topic #20, Wetland Buffers

a) PDS will conduct a parallel process, convening a group of local wetland consultants, to consider revisions to the CAO regulations regarding wetland habitat function score break

points, buffer widths, reduction, averaging to meet DOE guidelines, and having buffers based on habitat performance instead of static/standard buffers. If they complete this work in time, it can be incorporated into this update; otherwise it can follow.

In July 2018 the Washington Department of Ecology (DOE) modified the habitat score ranges and recommended buffer widths in their wetland buffer tables in the DOE guidance, with some minor text changes to ensure consistency. Some citizens, local environmental consulting firms, and the Building Industry Association of Whatcom County then requested that we amend our code to meet this new guidance, and it was docketed as PLN2019-00008.

The project was brought before the Planning Commission on March 14, 2019. But there was confusion as to what we actually *had* to do at that time and what impacts it would have on development. DOE had informed staff that, while we didn't need to amend our code at that point (having just updated Ch. 16.16 (Critical Areas) (Exhibit F) that they would review our code for consistency with their guidance when Ch. 16.16 was opened for amendment again, noting that that would occur during the 2020 SMP Periodic Update.

So at the Commission's request, staff worked with the local wetlands consultants to review the issue and try to determine what effects it might have. Three consulting firms⁷ provided analyses based on data from projects they had worked on. From these analyses, it appears that many of Whatcom County's lower quality wetlands (e.g., small Category IV wetlands in agricultural fields) would end up with smaller buffers, but that our higher quality wetlands (Categories II and III) would end up with larger buffers. (But even this is speculation, as ATSI noted that the comparison results are not statistically significant.⁸) Thus, farmers may benefit but developers/ builders may suffer, as many of our lower quality wetlands are those found in agriculture fields, while our higher quality wetlands are typically found in non-agriculture rural areas.

Nonetheless, given the Department of Ecology's statements that they'll be monitoring the SMP Update to ensure that we meet their latest guidance (which is based on Best Available Science), and given that Comprehensive Plan Policy 10M-2 directs the County to "Develop and adopt criteria to identify and evaluate wetland functions that meet the Best Available Science standard and that are consistent with state and federal guidelines," staff is proposing to amend §16.16.630 (Wetland Buffers) Table 1 (Standard Wetland Buffer Widths) to meet DOE guidance. As indicated, these changes would lessen buffers on lower quality wetlands, and increase them on higher quality ones.

Topic #21, Marine Resource Lands

a) Consider adding a Marine Resource Lands policy section as developed by the Marine Resources Committee

When the Council amended the CompPlan in 2016 they included a new section entitled "Marine Resource Lands" that contained one goal and one policy that directed staff to assist in developing the section more thoroughly:

⁷ NW Ecological Services, NW Wetlands Consulting, and Aqua-Terr Systems, Inc.

⁸ Paired sample t-tests were conducted to compare the proposed buffer results with categories of the wetlands impacted.

Goal 8T: Conserve and enhance Whatcom County's marine land base for the long-term and sustainable production of commercial and recreational economic activities.

Policy 8T-1: Whatcom County will work with committees including but not limited to the Marine Resource Committee, the Shellfish Protection Advisory Committee, and other local marine land experts to create a new section of this chapter to support Goal 8T to be docketed and processed for consideration no later than 2017.

The project was docketed as (PLN2017-00005), and staff worked with these groups to help develop some language, goals, and policies for this section, which is shown as Exhibit C (C/P Ch. 8). However, there was mixed recommendations from the groups who reviewed the language.

- The **Marine Resources Committee** reviewed the proposal at their June 7, 2018, meeting, and after adding Policy 8V-4 (addressing educational efforts and programs) they recommended that the County Council adopt the proposed language.
- The **Birch Bay Watershed and Aquatic Resources Management Committee** (BBWARM) reviewed the proposal at their June 20, 2018, meeting. They recommended that the Council *not* adopt the proposed language. They felt that the new Marine Resource Lands section of the CompPlan was already covered by the existing Shoreline Management Program and that including it would add unnecessary complication/duplication. They recommended that the Council postpone any action on the Marine Resource Lands amendment until the SMP update commenced.
- The **Portage/Drayton Shellfish Protection Districts** reviewed the proposal at their July 25, 2018, meeting. However, they did not have a quorum and could not act.
- The **Planning Commission** held a workshop on June 14 and a public hearing on June 28, 2018. They recommended that the Council *not* adopt the Marine Resource Lands proposal. There was concern amongst some of the Commissioners that regulations adopted subsequent to these policies could affect farmers, even though staff explained that it was not our nor CM Weimer's intent to address agricultural runoff. They also thought it would be better to consider this during our SMP update, perhaps incorporating some of the goals and policies into that rather than having a separate section.

When staff brought the project forward to Council's Planning & Development Committee for review they decided to consider it with the (then) upcoming SMP update.

Topic #22, No Net Loss

a) Prepare a No Net Loss technical memo

On September 10, 2019, staff presented to the Council's Natural Resources Committee an overview of how No Net Loss is achieved.

No net loss incorporates the following concepts:

- The existing condition or baseline of shoreline ecological functions, documented in the 2007 documented in the shoreline inventory and characterization, should not deteriorate due to permitted development.
- Shoreline functions may improve through shoreline restoration.
- New adverse impacts to the shoreline environment that result from planned development should be avoided.

- When this is not possible, impacts should be minimized through mitigation sequencing.
- Mitigation for development projects alone cannot prevent all cumulative on-going impacts and shoreline violations, so restoration is also needed.

Based on past practice, current science tells us that most, if not all, shoreline development produces some impact to ecological functions. However, the recognition that future development will occur is basic to the no net loss standard. The challenge is in maintaining shoreline ecological functions while allowing appropriate new development and ensuring adequate land for preferred shoreline uses and public access. With due diligence, local governments can properly locate and design development projects and require conditions to avoid or minimize impacts.

In 2007 Whatcom County underwent a comprehensive update of its Shoreline Management Program (SMP). At that time the County prepared an Inventory and Characterization Report (Vol. I), a Scientific Literature Review (Vol. II), a Restoration Plan (Vol. III), and a Cumulative Effects Analysis (Vol. IV), all of which were approved by County Council and the Department of Ecology. These documents formed the basis for developing the County's Shoreline Management Program and determining that it would achieve no net loss of ecological functions when implemented.

Whatcom County is now undergoing a periodic update. For such an update the County is not required to re-do all these documents except to augment them if something changes that might negatively affect the shoreline's ecological functions. For the most part there are few significant policy changes in this update; most of the proposed amendments are an effort to reorganize the SMP so as to make it easier to use and understand.

There are a few policy changes, though, and the No Net Loss Statement, prepared by The Watershed Company as an addendum to the 2007 Cumulative Effects Analysis, addresses these (Exhibit I). The conclusion is that each of these amendments works to strengthen the shoreline ecological protections provided by the SMP.

b) Shoreline Restoration Plan Addendum

Simply stated, the no net loss standard is designed to halt the introduction of new impacts to shoreline ecological functions resulting from new development by requiring mitigation. However, over all, protection, restoration, and mitigation are needed to achieve no net loss. Restoration is the only mechanism by which we can improve shoreline functions and ecosystem-wide processes over time. Local governments must achieve this standard through both the SMP planning process and by appropriately regulating individual developments as they are proposed in the future.

The concept of no net loss of shoreline ecological functions is rooted in the Act and in the goals, policies, and governing principles of the state's shoreline guidelines. These principles suggest that no net loss is achieved primarily through regulatory approaches and that restoration occurs mainly via goals, policies, and voluntary or incentive-based mechanisms. It is also important to note that more than simply preventing further loss of ecological functions, master program provisions must also "...achieve overall improvements in shoreline ecological functions over time when compared to the status upon adoption of the master program."

The mandate to improve functions over time provides the basis for restoration planning and creates a distinction between mitigation and restoration. As mentioned, applicants for shoreline permits must fully mitigate new impacts caused by their proposed development. However, applicants are not required to restore past permitted ecosystem damages as a condition of permit approval. Permit applicants will not be required to implement the restoration measures identified in the plan as mitigation for project

impacts, but they may elect to implement elements of this plan as mitigation for shoreline development if appropriate. And they may be required to mitigate for recurring impacts.

SMP updates: Achieving no net loss of ecological function

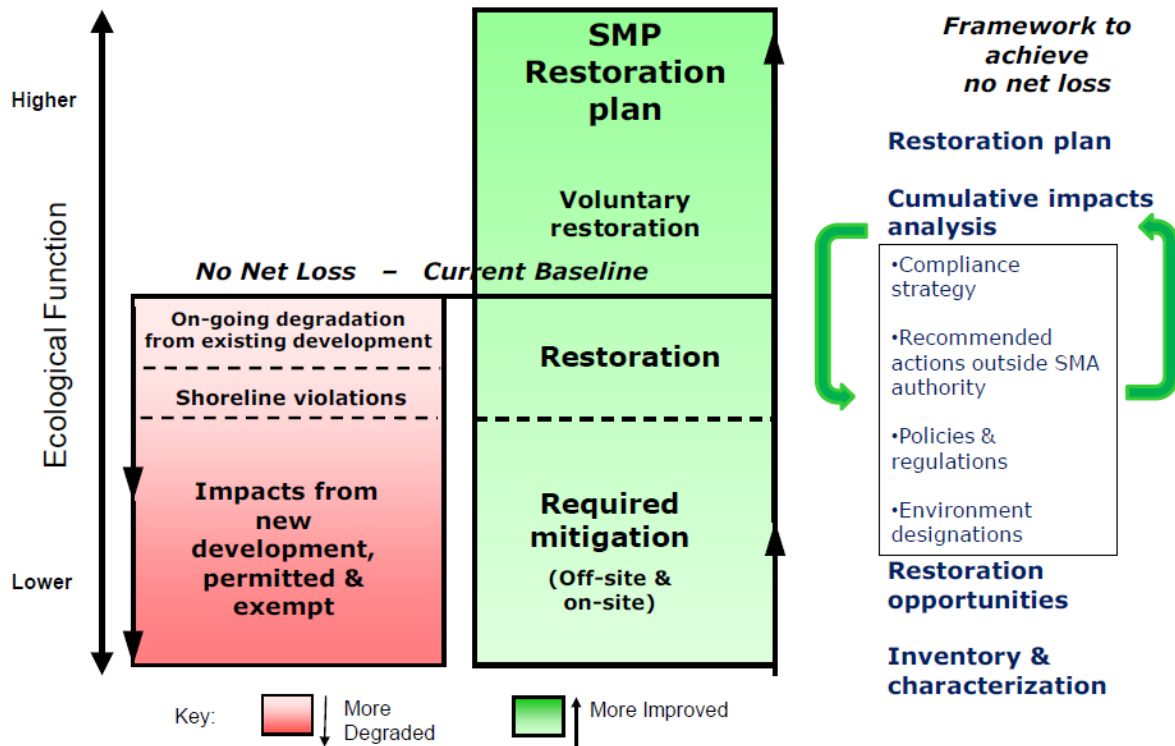


Figure 4-1: During the SMP update process, local governments should use existing shoreline conditions as the baseline for measuring no net loss of shoreline ecological functions.

Exhibit J is an addendum to the 2007 Shoreline Restoration Plan. It references projects listed in the Shoreline Restoration Plan containing enhancement and restoration project proposals and updates them based on information received by the County, agencies, tribes, and stakeholder organizations. It also lists several projects that were not included in that Plan, but nonetheless have been undertaken and completed, and that improve shoreline ecological functions.

It is important to note that to continue to achieve NNL over time the County should continue to fund and implement the projects listed in the restoration plan.

Other Amendments

Sustainable Salmon Harvest Goal

There is a new Policy 10L-19 proposed to be added to Chapter 10 regarding a sustainable salmon harvest goal (Exhibit A, page 11-47). Adding this policy is not a part of the SMP Update per se, and in fact was not part of the scope. Rather, it is a policy the Council expressed in interest in adding in support of the fisheries co-manager's Sustainable Salmon Harvest Goal. Adding such a policy was placed on the docket by Council in 2018 (#PLN2018-00010). Rather than process its addition as a separate CompPlan amendment, staff is proposing to add it while we're already amending the CompPlan for the SMP

Update. We should note, however, that through the Salmon Recovery Staff Team the fisheries co-managers (WDFW, Lummi Nation, and Nooksack Tribe) are reviewing this draft language and may propose some additional amendment(s) to it. If so, we will inform the Planning Commission later in your review.

Short-Term Rentals

Though already approved by Council via Resolution 2016-039 and by the Department of Ecology, Council's actions on short-term rentals has not been finalized by ordinance. Thus, staff has included in the draft Title 23 those amendments on short-term rentals already approved. Please note that there are similar amendments to Title 20 that Council has not acted on, and these would need to be followed up shortly after the SMP amendments are approved.

UGA Wetlands

In 16.16.225 (General Regulations) staff is proposing to add subsection (B)(7), which would allow "alteration of Type III or IV wetlands that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area" when impacts are mitigated. This would allow the alteration of certain wetlands in Urban Growth Areas (UGAs) (in particular, Birch Bay) so as to encourage development of commercially zoned property. Commercial development in Birch Bay is challenging because so much of the remaining commercially zoned property contains small, isolated wetlands. Yet under the Growth Management Act we're supposed to encourage development within UGAs so that development doesn't sprawl to less developed areas of the County.

IV. Comprehensive Plan Evaluation

The proposed amendments to the regulations (WCC Titles 22 and 23 and Ch. 16.16) have been developed using the guidance of the Comprehensive Plan so as to remain consistent. Generally, the specific guiding goals and policies would be listed here so as to inform the Council of consistency; however, that would just be a relisting of each, as every goal and policy of Comprehensive Plan Chapter 11 is relevant. Those goals and policies may be reviewed in Exhibit B. Suffice it to say that staff finds no inconsistencies.

V. Draft Findings of Fact and Reasons for Action

Staff recommends the Council adopts the following findings of fact and reasons for action:

1. The Shoreline Management Act (SMA) requires Whatcom County to develop and administer a Shoreline Master Program (SMP); and
2. Whatcom County is subject to the requirements of the Washington State Growth Management Act (GMA), RCW 36.70A.480 'Shorelines of the State.'
3. On February 27, 2007 (Ordinance # 2007-017), Whatcom County adopted a comprehensive update to the SMP as required by law. This comprehensive SMP update review included but was not limited to assessment of ecological functions, baseline conditions, and SMP environmental designations. This local adoption was approved by the Washington State Department of Ecology (Ecology); and
4. The Washington State Shoreline Management Act (SMA), RCW 90.58.080 (4)(a)(ii), mandates Whatcom County shall periodically review its SMP every 8-years. This periodic update is due June 30, 2021. The purpose of this periodic review is to update the local SMP to reflect changes to state

- law and associated rules and guidance, ensure internal consistency with the Whatcom County Comprehensive Plan and associated development regulations, as well as provide an opportunity to improve usability and predictability of the SMP; and
5. The GMA, RCW 36.70A.130(1), also mandates that Whatcom County's Comprehensive Plan and development regulations are subject to continuing review and evaluation; and
 6. The review process is intended to bring the SMP into compliance with requirements of the act or state rules that have been added or changed since the last SMP amendment, ensure the SMP remains consistent with amended comprehensive plans and regulations, and incorporate amendments deemed necessary to reflect changed circumstances, new information, or improved data; and
 7. Whatcom County Planning and Development Services (PDS) submitted an application (PLN2020-00006) to make various amendments to Whatcom County's Shoreline Management Program; and,
 8. On May 21, 2019, and in accordance with WAC 173-26-090(3)(a), Whatcom County developed a public participation program for this periodic review in to inform, involve and encourage participation of interested persons and private entities, tribes, and applicable agencies having interests and responsibilities relating to shorelines, which was submitted to Ecology; and
 9. Whatcom County has followed its adopted public participation program, including:
 - a. A dedicated project webpage;
 - b. Legal notices published in the official newspaper of record for Whatcom County;
 - c. Electronic announcements and notifications to:
 - Subscribers of relevant lists in the Kitsap County Electronic Notification System;
 - Relevant County advisory groups; and
 - Relevant local, state and federal agencies, and community groups;
 - Federally recognized tribes with usual and accustomed areas in Whatcom County and relevant tribal organizations;
 - d. Three public open houses;
 - e. Meetings with citizen advisory groups and various interested parties;
 - f. Two 30-day public review periods of the amendments, one prior to the Planning Commission review workshops (August – September 2020) and a joint public comment period with the Department of Ecology prior to their joint public hearing (March – April 2021).
 - g. Eleven public workshops and a joint public hearing with the Planning Commission and Department of Ecology; and
 - h. Ten public workshops and a public hearing with the County Council.
 10. Whatcom County used Ecology's checklist of legislative and rule amendments to review amendments to chapter 90.58 RCW and department guidelines that have occurred since the master program was last amended, and determine if local amendments are needed to maintain compliance in accordance with WAC 173-26-090(3)(b)(i); and
 11. With the assistance of a consultant and development of a consistency analysis, Whatcom County PDS proposed amendments to the Whatcom County Comprehensive Plan (Chapters 8 (Resource Lands), 10 (Environment), and 11 (Shorelines)) and WCC Titles 22 (Land Use & Development) and 23 (Shoreline Management Regulations), and WCC Chapter 16.16 (Critical Areas).

12. Following review and approval by the Whatcom County Council, a public participation plan, consistency analysis, and scoping document was developed to aid in developing the draft amendments.
13. Whatcom County reviewed changes to the comprehensive plan and development regulations to determine if the shoreline master program policies and regulations remain consistent with them in accordance with WAC 173-26-090(3)(b)(ii); and
14. Whatcom County considered whether to incorporate any amendments needed to reflect changed circumstances, new information or improved data in accordance with WAC 173-26-090(3)(b)(iii); and
15. The Whatcom County Planning Commission and County Council held public hearings on July 25 and August 7, 2019 (respectively) to receive testimony on topics the public believed should be addressed during the periodic review; and
16. The Whatcom County Planning Commission completed a review of staff recommendations and prepared initial amendments; and
17. Whatcom County consulted with the Department of Ecology early and often during the drafting of the amendments. Whatcom County worked collaboratively with the Department of Ecology to address local interests while ensuring proposed amendments are consistent with the policy of RCW 90.58.020 and applicable guidelines in accordance with WAC 173-26-104; and
18. A State Environmental Policy Act (SEPA) environmental checklist was prepared and the Whatcom County SEPA responsible official issued and circulated a copy of the checklist and a Determination of Non-Significance (DNS) on February 18, 2021; and
19. Whatcom County conducted a formal joint public comment period with the Department of Ecology in compliance with requirements of WAC 173-26-104; and
20. Whatcom County published a legal notice in the Bellingham Herald on April 17, 2021, for a public hearing on the proposed staff recommendations, including a statement that the hearings were intended to address the periodic review in accordance with WAC 173-26-090(3)(c)(ii); and
21. The Planning Commission took public testimony on the proposed staff recommendations at a public hearing on April 22, 2021; and
22. The Planning Commission reviewed the public testimony and written comments on the proposed SMP revisions, and suggested revisions to the proposed amendments; and
23. The Planning Commission recommended approval of the proposed amendments and forwarded it to the County Council for review and adoption on May 13, 2021; and
24. Notice of the subject amendments was submitted to the Washington State Department of Commerce on March 12, 2021, for their 60-day review in accordance with WAC 173-26-100(5); and
25. The Council held six public workshops to review the Planning Commission's recommendations; and
26. A Council Public Hearing Notice was posted in the Bellingham Herald on November 14, 2021; and

27. The Council received public testimony at the public hearing of November 23, 2021, and reviewed said public testimony and written comments at a study session on December 7, 2021; and
28. After considering all public comments and evidence, the Council determined that the proposed amendments comply with all applicable laws and rules; and
29. As evidenced by the recommendation of the Surface Mining Advisory Committee, Title 23 already meets Council's intent to allow sand and gravel extraction within shoreline jurisdiction under certain circumstances as described in PLN2019-00011 and thus no amendments are proposed to achieve this; and,
30. RCW 36.32.120(7) provides that the county legislative authorities shall make and enforce, by appropriate resolutions or ordinances, all such police and sanitary regulations as are not in conflict with state law; and
31. The amendments are consistent with the Shoreline Management Act, Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.
32. The proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.
33. This completes the County's required process for periodic review in accordance with RCW 90.58.080(4) and applicable state guidelines (WAC 173-26).

VI. Proposed Conclusions

1. The amendments are in the public interest.
2. The amendments are consistent with the Whatcom County Comprehensive Plan.

VII. Recommendation

Planning and Development Services recommends that the County Council approve the draft resolution included in your packet, which would approve the proposed amendments to Whatcom County's Shoreline Management Program and authorize staff to forward them to the Department of Ecology for final review and approval.

PROPOSED BY: _____
INTRODUCTION DATE: _____

RESOLUTION NO. _____

**A WHATCOM COUNTY RESOLUTION, DECLARING THE COUNCIL'S APPROVAL AND INTENTION TO
ADOPT THE OCTOBER 29, 2021, AMENDMENTS TO WHATCOM COUNTY CODE, TITLE 23 - SHORELINE
MANAGEMENT PROGRAM;**

WHEREAS, the Shoreline Management Act (SMA) requires Whatcom County to develop and administer a Shoreline Master Program (SMP); and

WHEREAS, Whatcom County is subject to the requirements of the Washington State Growth Management Act (GMA), RCW 36.70A.480 'Shorelines of the State.'

WHEREAS, on February 27, 2007 (Ordinance # 2007-017), Whatcom County adopted a comprehensive update to the SMP as required by law. This comprehensive SMP update review included but was not limited to assessment of ecological functions, baseline conditions, and SMP environmental designations. This local adoption was approved by the Washington State Department of Ecology (Ecology); and

WHEREAS, the Washington State Shoreline Management Act (SMA), RCW 90.58.080 (4)(a)(ii), mandates Whatcom County shall periodically review its SMP every 8-years. This periodic update is due June 30, 2021. The purpose of this periodic review is to update the local SMP to reflect changes to state law and associated rules and guidance, ensure internal consistency with the Whatcom County Comprehensive Plan and associated development regulations, as well as provide an opportunity to improve usability and predictability of the SMP; and

WHEREAS, the GMA, RCW 36.70A.130(1), also mandates that Whatcom County's Comprehensive Plan and development regulations are subject to continuing review and evaluation; and

WHEREAS, the review process is intended to bring the SMP into compliance with requirements of the act or state rules that have been added or changed since the last SMP amendment, ensure the SMP remains consistent with amended comprehensive plans and regulations, and incorporate amendments deemed necessary to reflect changed circumstances, new information, or improved data; and

WHEREAS, Whatcom County Planning and Development Services (PDS) submitted an application (PLN2020-00006) to make various amendments to Whatcom County's Shoreline Management Program; and,

WHEREAS, on May 21, 2019, and in accordance with WAC 173-26-090(3)(a), Whatcom County developed a public participation program for this periodic review in to inform, involve and encourage participation of interested persons and private entities, tribes, and applicable agencies having interests and responsibilities relating to shorelines, which was submitted to Ecology; and

WHEREAS, Whatcom County has followed its adopted public participation program, including:

- a. A dedicated project webpage;
- b. Legal notices published in the official newspaper of record for Whatcom County;

- c. Electronic announcements and notifications to:
 - Subscribers of relevant lists in the Kitsap County Electronic Notification System;
 - Relevant County advisory groups; and
 - Relevant local, state and federal agencies, and community groups;
 - Federally recognized tribes with usual and accustomed areas in Whatcom County and relevant tribal organizations;
- d. Three public open houses;
- e. Meetings with citizen advisory groups and various interested parties;
- f. Two 30-day public review periods of the amendments, one prior to the Planning Commission review workshops (August – September 2020) and a joint public comment period with the Department of Ecology prior to their joint public hearing (March – April 2021).
- g. Eleven public workshops and a joint public hearing with the Planning Commission and Department of Ecology; and
- h. Ten public workshops and a public hearing with the County Council.

WHEREAS, Whatcom County used Ecology’s checklist of legislative and rule amendments to review amendments to chapter 90.58 RCW and department guidelines that have occurred since the master program was last amended, and determine if local amendments are needed to maintain compliance in accordance with WAC 173-26-090(3)(b)(i); and

WHEREAS, with the assistance of a consultant and development of a consistency analysis, Whatcom County PDS proposed amendments to the Whatcom County Comprehensive Plan (Chapters 8 (Resource Lands), 10 (Environment), and 11 (Shorelines)) and WCC Titles 22 (Land Use & Development) and 23 (Shoreline Management Regulations), and WCC Chapter 16.16 (Critical Areas).

WHEREAS, following review and approval by the Whatcom County Council, a public participation plan, consistency analysis, and scoping document was developed to aid in developing the draft amendments.

WHEREAS, Whatcom County reviewed changes to the comprehensive plan and development regulations to determine if the shoreline master program policies and regulations remain consistent with them in accordance with WAC 173-26-090(3)(b)(ii); and

WHEREAS, Whatcom County considered whether to incorporate any amendments needed to reflect changed circumstances, new information or improved data in accordance with WAC 173-26-090(3)(b)(iii); and

WHEREAS, the Whatcom County Planning Commission and County Council held public hearings on July 25 and August 7, 2019 (respectively) to receive testimony on topics the public believed should be addressed during the periodic review; and

WHEREAS, the Whatcom County Planning Commission completed a review of staff recommendations and prepared initial amendments; and

WHEREAS, Whatcom County consulted with the Department of Ecology early and often during the drafting of the amendments. Whatcom County worked collaboratively with the Department of Ecology to address local interests while ensuring proposed amendments are consistent with the policy of RCW 90.58.020 and applicable guidelines in accordance with WAC 173-26-104; and

WHEREAS, a State Environmental Policy Act (SEPA) environmental checklist was prepared and the Whatcom County SEPA responsible official issued and circulated a copy of the checklist and a Determination of Non-Significance (DNS) on February 18, 2021; and

WHEREAS, Whatcom County conducted a formal joint public comment period with the Department of Ecology in compliance with requirements of WAC 173-26-104; and

WHEREAS, Whatcom County published a legal notice in the Bellingham Herald on April 17, 2021, for a public hearing on the proposed staff recommendations, including a statement that the hearings were intended to address the periodic review in accordance with WAC 173-26-090(3)(c)(ii); and

WHEREAS, the Planning Commission took public testimony on the proposed staff recommendations at a public hearing on April 22, 2021; and

WHEREAS, the Planning Commission reviewed the public testimony and written comments on the proposed SMP revisions, and suggested revisions to the proposed amendments; and

WHEREAS, the Planning Commission recommended approval of the proposed amendments and forwarded it to the County Council for review and adoption on May 13, 2021; and

WHEREAS, Notice of the subject amendments was submitted to the Washington State Department of Commerce on March 12, 2021, for their 60-day review in accordance with WAC 173-26-100(5); and

WHEREAS, the Council held six public workshops to review the Planning Commission's recommendations; and,

WHEREAS, a Council Public Hearing Notice was posted in the Bellingham Herald on November 14, 2021; and

WHEREAS, the Council received public testimony at the public hearing of November 23, 2021, and reviewed said public testimony and written comments at a study session on December 7, 2021; and

WHEREAS, after considering all public comments and evidence, the Council determined that the proposed amendments comply with all applicable laws and rules; and

WHEREAS, as evidenced by the recommendation of the Surface Mining Advisory Committee, Title 23 already meets Council's intent to allow sand and gravel extraction within shoreline jurisdiction under certain circumstances as described in PLN2019-00011 and thus no amendments are proposed to achieve this; and,

WHEREAS, RCW 36.32.120(7) provides that the county legislative authorities shall make and enforce, by appropriate resolutions or ordinances, all such police and sanitary regulations as are not in conflict with state law; and

WHEREAS, the amendments are consistent with the Shoreline Management Act, Growth Management Act, Whatcom County Comprehensive Plan, and other applicable requirements.

WHEREAS, the proposed amendments reflect current local circumstances and promote the general public health, safety, morals and welfare.

WHEREAS, this completes the County's required process for periodic review in accordance with RCW 90.58.080(4) and applicable state guidelines (WAC 173-26).

NOW, THEREFORE, BE IT RESOLVED BY THE WHATCOM COUNTY COUNCIL:

Section 1. Review and Evaluation. The Council hereby finds that the review and evaluation required by RCW 90.58.080(4) has occurred, as described in the recitals above.

Section 2. Revisions. That the Whatcom County Comprehensive Plan, Chapters 8 (Exhibit C), 10 (Exhibit A), and 11 (Exhibit B); Whatcom County Code Titles 22 (Exhibit E) and 23 (Exhibit D) and Chapter 16.16 (Exhibit F); the Official Shoreline Map (Exhibit G); Whatcom County's No Net Loss Analysis (Exhibit I); and Whatcom County's Shoreline Restoration Plan (Exhibit J) are hereby amended to read as set forth in the noted exhibits, which are attached to this resolution and incorporated herein by this reference. The remaining portions of the County's SMP shall remain unchanged.

Section 3. Approval. The Council hereby approves the October 29, 2011, versions of the above referenced SMP revisions and finds the amended SMP consistent with the requirements of RCW 90.58 and WAC 173-26, as they apply to these amendments, with the understanding that in accordance with RCW 90.58.190(3), and if Ecology adopts the amendments, the Whatcom County Council intends to adopt (and codify), by ordinance, the subject shoreline master program amendments.

Section 4. Submission to Department of Ecology. The Director of Planning and Development Services is directed to submit the SMP and associated documents to the Department of Ecology for their review and approval prior to formal adoption. If/Once approved by the Department of Ecology no further action is necessary for compliance with RCW 90.58.080(4) for the periodic review update due on June 30, 2021.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

ATTEST:

Dana Brown-Davis, Council Clerk

APPROVED as to form:

Civil Deputy Prosecutor

Barry Buchannan, Council Chair

() Approved () Denied

Satpal Sidhu, Executive

Date: _____

Exhibit A – Planning Commission Approved Draft

October 29, 2021

Chapter 10 - Environment

Chapter Ten Environment

Introduction

Each person in Whatcom County has a fundamental right to a healthful and safe environment in which to live and grow. With this right comes a responsibility to contribute to the protection and enhancement of our natural environment. Consequently, an important goal of the Whatcom County Comprehensive Plan is to protect or enhance the county's environmental quality. This means that, individually and collectively, we have the obligation to protect these resources for our children and their children. Essential to this is the establishment of safe development practices and patterns that do not significantly disrupt ecosystems and that ensure the continuation of ample amounts of clean water, natural areas, farmlands, forest lands, and fish and wildlife habitat.

Chapter Organization

This chapter is composed of an introduction and four sections organized by topic heading. The first section, entitled "General Environmental Management," addresses general environmental goals and policies. The remaining three sections deal with Natural Hazards, Water Resources, and Ecosystems. Together, the sections of this chapter provide the direction necessary to ensure and promote long-term sustainability of the environment in Whatcom County.

Purpose

Whatcom County's natural environment, with its seasonally abundant supply of water, its beauty, and its other natural resources, has attracted people to our community for generations. This setting is important to our sense of well-being, to our health, to our economic well-being, and to our future. Sustaining these assets in the face of increasingly intense human activity becomes more difficult each year. The challenge of protecting this environment while accommodating growth requires maintaining guidelines for development so that growth does not ultimately overrun the very assets that brought most of us here. The purpose of this chapter is to create such guidelines.

GMA Goals and Countywide Planning Policies

GMA Planning Goal 10, "Environment" (RCW 36.70A.020(10)), provides the directive for much of this chapter. It requires Whatcom County to "protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water." In addition, some of the goals and policies of this chapter support Planning Goal 9, "Open Space and Recreation" (RCW 36.70A.020(9)), which directs the county to "conserve fish and wildlife habitat."

Relative to environmental protection, Whatcom County's Countywide Planning Policies (CWPP) give the most attention to water issues. They state, "The quality of life and economic health of Whatcom County communities depend on the maintenance of a safe and reliable water supply. All jurisdictions and water

Exhibit A – Planning Commission Approved Draft

October 29, 2021

Chapter 10 - Environment

purveyors should cooperate to ensure the protection and quality of the area's water resources." Specific policies address water, promoting inter-jurisdictional cooperation in conserving, protecting, and managing the water resource, and in reducing water pollution (CWPP Policies N.1 – 6). The CWPPs also support protecting wildlife habitat and corridors, natural drainage features, and "other environmental, cultural and scenic resources."

GMA Requirements

The GMA requires Whatcom County to identify and manage critical areas in such a manner as to prevent destruction of the resource base and reduce potential losses to property and human life. The GMA has identified Critical Areas to include the following areas and ecosystems:

- Wetlands
- Critical Aquifer Recharge Areas
- Fish and wildlife habitat conservation areas
- Frequently flooded areas
- Geologically hazardous areas

Environmental Setting

Whatcom County bedrock geology can be divided into five bedrock geologic provinces. From east to west these provinces are the Methow terrain, the Cascade Crystalline Core, the Northwest Cascades System, the Fraser Lowland, and the San Juan Island system. Tectonic activity over the past 15 million years has created the present North Cascades and the formation of Mount Baker, a 10,000-foot high composite volcano.

The mountains of Whatcom County, as well as the streams, lakes, valleys, hills, and shoreline features are the result of millions of years of geologic events. Over 2.5 million years ago, during the Ice Ages, glacial ice invaded the Puget Sound lowlands from the north at least four times, with the last major glacial event, the Fraser Glaciation, ending approximately 12,000 years ago. A minor advance of glacial ice, the Sumas Advance, ended approximately 10,000 years ago. The ice formed from the accumulation of snow in the British Columbia Coast Range and interior of British Columbia. Numerous glaciers are still present within the mountains of Whatcom County, and some of these mountain glaciers formerly extended far down the mountain valleys of the County. The underlying bedrock was deeply eroded during these glacial events creating very steep mountainsides, and in some areas, particularly in northwestern Whatcom County, a thick sequence of glacial related sediments was deposited. The glacial ice was approximately 6,000 feet thick in the vicinity of Bellingham.

Two main glacial advances are the most important to our area, the Salmon Springs glaciation and the later Vashon glaciation. Each time the massive glacier advanced, it dammed up the Puget lowlands to form a huge lake. As the floating ice melted, sand, gravel, clay and occasional boulders would melt out of the ice and fall to the sea floor. This deposit, the Bellingham Drift, covers the ground surface over a large area of western Whatcom County. Each time the Ice Age glacier advanced, it also compacted underlying sediments with its great weight. It created a concrete-like

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Chapter 10 - Environment

material called "till" (also known as "hardpan") beneath it. Because the Bellingham Drift consists primarily of clay and silt, it is relatively impermeable; water tends to accumulate on the ground surface. Wetlands are common on the Bellingham Drift.

On the bottom of the lake, "rock flour", the finely ground remains of rocks pulverized by glacial action, settled out. These deposits became the familiar "blue clays" of the Puget lowland. The milky color of the Nooksack River is due to the same kind of rock flour, created by glacial activity on the slopes of Mount Baker.

Additionally, each time the glacier retreated, water from the melting ice deposited thick layers of sand and gravel known as "outwash." The outwash areas are typically where we find our most productive aquifers, since these loose sands and gravel are porous and drain rapidly. While these areas absorb rainwater for our later use from wells, they are also vulnerable to contamination. An example of this phenomenon is found in the outwash sands and gravels resulting from the Sumas Advance. Large meltwater streams and rivers flowed from this glacier depositing the Sumas Outwash sands and gravels. The Sumas Outwash sands and gravels make up the best non-floodplain farmland in the County and some of the highest quality construction gravel deposits. Abandoned outwash channels were formerly used as sources of peat.

Each of these glacial sediments, lake bed deposits, till and outwash is present in various places and in varied combinations in Whatcom County. These sediments provide both the formations that hold the groundwater for many of the area's wells, and the parent material for most of the different soils.

Out of these long physical processes a complex natural ecology has emerged that supports a diversity of wildlife. Many of our lakes, rivers, and streams support fish including, but not limited to, native species such as the five pacific salmon (Chinook, Coho, Sockeye, Chum, Pink) as well as Steelhead, Rainbow Trout, Cutthroat (coastal and resident), Bull Trout, and Dolly Varden. Every year salmon return to spawn in the streams and rivers of Whatcom County. Whatcom County is located within the Pacific Migratory Flyway and serves as a stopover and critical habitat area for many migratory birds. Bufflehead and goldeneye ducks winter here. Additionally, numerous bird species including scoters, snow geese, trumpeter swans, canvasbacks, cormorants, grebes, loons, and other migrating waterfowl pass through every spring and fall as they travel between their breeding grounds in Alaska and Canada and their wintering grounds in California and Mexico. Mallards, Canada geese, great blue herons, and numerous songbirds live in the county year-round. Maintaining these unique resources is a high priority for both present and future county residents. Whatcom County is home to a distinct subspecies of the Great Blue Heron, which has the third largest colony in the Puget Sound area. The wetlands, fields, streams, and nearshore habitat in the county support many birds of special concern, such as the bald eagle (protected under the Bald and Golden Eagle Protection Act), the pileated woodpecker (candidate for State threatened list), and the peregrine falcon (ESA candidate species). The National Audubon Society has designated Semiahmoo, Drayton Harbor, and Birch Bay as "Important Bird Areas."

Exhibit A – Planning Commission Approved Draft

October 29, 2021

Chapter 10 - Environment

Environmental Management

Introduction

General environmental goals and policies are intended to provide guidance for environmental management that will promote environmental protection and good stewardship practices through a balance of public education and involvement; incentives, acquisition, and voluntary programs; land use planning and regulations; environmental monitoring; and intergovernmental cooperation. These goals and policies are also intended to provide guidance to County government as it assists its citizens in maintaining a balance between individual property rights, economic development, and environmental protection.

Background Summary

Development in the last 100 years has had a significant impact on the natural environment in Whatcom County. At the turn of the 20th century, some areas surrounding Lynden, Sumas, and Ferndale were logged, drained, and converted to agricultural land and other types of development. In the intervening years, many of the remaining forests were logged, many streams re-routed and channelized, and much of the native vegetation removed and replaced with a wide variety of introduced vegetative types. Roads now crisscross most areas, with homes, farms, businesses, and industries scattered throughout the county.

Issue, Goals, and Policies

There are designated lands in Whatcom County that can still accommodate development. Whatcom County also has areas that are sensitive to human activity, including wetlands, streams, lakes, and marine shorelines, and lands that can pose a hazard to the community, including floodplains and unstable slopes. In these areas development must be carefully planned or limited to maintain environmental quality and public safety. This can be done through the creation and implementation of goals and policies that seek to reduce hazards and prevent adverse environmental impacts.

Community and Environmental Protection

The elements of the natural environment: water, air, soil, plants, and animals; are interconnected and interdependent, functioning as one dynamic ecosystem. Environmental resources within this ecosystem are extensive and, in some cases, irreplaceable. They provide important beneficial uses to the community such as: the supply of clean drinking water; management of stormwater run-off and flood hazard management; support for a wide variety of fish and wildlife; fresh air; and a sense of place in which residents invest, enjoy, and expect.

Some of these same resources result in serious environmental constraints or pose a hazard to development and a danger to the community. Flooding in the Nooksack River is frequent and impacts much of the valley floor. There are numerous wetlands and hydric soils throughout the lowlands that provide critical wetland functions and are generally unsuitable for development. The steep gradient and

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geologic structure of the mountain ranges in conjunction with heavy annual precipitation can contribute to slope instability and flood-prone drainage basins.

Much of the environmental degradation and destruction to property occurs as a result of a lack of information or understanding rather than willful action. Ecosystems are subtle and complex. Too often both their benefits and hazards are not readily apparent to the community. Additionally, baseline information is not always available to help identify the real costs or hazards of building in Whatcom County. There is a need for further research and education.

Goal 10A: Protect natural resources and systems, life, and property from potential hazards.

Policy 10A-1: Support good stewardship of Whatcom County lands, and apply this principle to the management of public lands.

Policy 10A-2: Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation, enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination.

Policy 10A-3: Continue to identify, designate, and protect Critical Areas and other important environmental features.

Policy 10A-4: Manage designated Critical Areas as needed, to minimize or protect against environmental degradation and reduce the potential for losses to property and human life.

Policy 10A-5: Actively pursue voluntary, cooperative, and mutually beneficial efforts aimed at advancing county environmental goals.

Policy 10A-6: Aim to meet or exceed national, state, and regional air quality standards. Work with the Northwest Clean Air Agency to ensure compliance with applicable air quality standards.

Policy 10A-7: Using Best Available Science, support efforts to educate and inform the public as to the benefits of a healthy and viable environment, ecologically fragile areas, and their economic and social value.

Policy 10A-8: Lead and/or coordinate efforts with property owners, citizen groups, and governmental and non-governmental agencies in furthering Whatcom County's environmental goals and policies.

Policy 10A-9: Cooperate with state and federal agencies and neighboring jurisdictions to identify and protect threatened and endangered fish and wildlife species and their habitats.

Policy 10A-10: Support acquisition, conservation easements, open space, and other such programs to protect high-value natural areas as identified through the GMA planning process, the Natural Heritage Plan, the state Priority Habitats and Species (PHS) program, the Lake Whatcom Management Program, and other sources.

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Policy 10A-11: Designate high-value open space and natural areas for acquisition, conservation easements, open space, and other such programs to protect these natural areas upon request or consent of the property owner.

Policy 10A-12: Broadly inform the people of Whatcom County of the locations of potential development constraints associated with natural conditions. Information should include known natural hazards and an assessment of the potential danger to both the property owner and the public.

Administration and Regulation

There are currently a multitude of regulations and administrative processes at the federal, state and local level that, together, have become excessive and difficult to understand. Conflicting regulations and complicated administrative processes can create undue hardship on community members and result in reduced levels of environmental protection.

Goal 10B: Simplify and harmonize regulations relating to the identification, delineation, and protection of environmental features.

Policy: 10B-1: Develop, as a significant component of a comprehensive environmental management program, non-regulatory measures that include voluntary activity, education, incentives, restoration, acquisition, advanced mitigation (i.e., mitigation done in advance of impacts), and intergovernmental coordination.

Policy 10B-2: Provide incentives for good stewardship of the land through the use of non-regulatory and innovative land use management techniques.

Policy 10B-3: Support education as an important tool in developing public appreciation for the value of ecosystems and provide the public with informational materials and presentations relating to natural system functions, regulations, and issues.

Policy 10B-4: Promote cooperation and coordination among involved government agencies when multiple agencies have jurisdiction over aspects of a single project.

Policy 10B-5: Process the environmental review of building and development permit applications within an established timeframe that is predictable and expeditious.

Policy 10B-6: Provide clear, timely, appropriate, and understandable direction to citizens, developers, and property owners.

Policy 10B-7: Ensure regulations are as simple and easy to understand as possible and maintain effective inspection, compliance, and enforcement measures as necessary.

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~~Policy 10B-8: Recognize the policies of the Whatcom County Shoreline Management Program as constituting a "Shoreline Element" of this plan. The shoreline program regulations and policies shall be considered to be consistent with this plan.~~

Comment [CES1]: No longer needed, as a new Chapter 11, Shorelines, has been created.

The Environment and Property Rights

Prior to the 1970s, growth in Whatcom County was relatively slow and received little management. As a result, private property owners were left to their own resources as they determined how best to use their land. However, as increasing numbers of people moved to this area and settled, a greater demand was placed on Whatcom County's natural resources.

The problems that arise from this situation have caused many to realize what one person does with his/her property may have an impact on the larger environmental system that sustains us as a community and on the rights of other property owners.

Land use decisions can no longer be considered exclusively private matters. We are aware public actions impact every private citizen in Whatcom County and private actions may have public consequences as well. To that end, the law must protect the public good from detrimental private actions. Nevertheless, the right of the individual to use his or her property, within the bounds permitted by law, is a value supported by law and the community and must be recognized when making land use decisions in Whatcom County.

Goal 10C: In implementing environmental policies, provide for protection of private property rights, economic opportunities, and plan appropriately for growth.

Policy 10C-1: Actively pursue voluntary and cooperative efforts that advance Whatcom County's goals in a mutually beneficial manner.

Policy 10C-2: When adopting new environmental protection programs, consider multiple economic parameters including development objectives, impacts, and the economic benefits of the natural environment as both a resource and an amenity.

Policy 10C-3: Emphasize an approach to environmental protection by encouraging the use of conservation easements, open space taxation, land acquisition, purchase/voluntary, workable transfer of development rights, and other mechanisms that assist affected property owners.

Policy 10C-4: Avoid standards and procedures likely to require compensation to property owners or invalidation of such rules.

Climate Change

Climate change is a global phenomenon that has the potential for significant local impacts to natural resources, ecosystem functions, as well as human health, infrastructure, and the economy. In Washington State, the Climate Impacts Group (CIG), a consortium of scientists at the University of Washington, has done the

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most extensive analysis of potential local climate change impacts in the Pacific Northwest. Based on a range of climate change model projections, as well as peer-reviewed scientific publications, the CIG concludes that during the next 20-40 years the Pacific Northwest climate may change significantly. See *Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers*, Climate Impacts Group, University of Washington, December 2013. The CIG confirms that global climate models project mid-21st century temperatures in the Pacific Northwest higher than the natural range of temperature observed in the 20th century. The CIG reports that as a result of likely climate change, causing slightly higher average annual temperature, impacts to the Pacific Northwest will likely affect a broad spectrum of the natural environment, but most notably changes to water resources, including:

- More precipitation falls as rain rather than snowfall in the Cascades due to an increased snow-line elevation;
- Decreased (winter) mountain snowpack and earlier (spring) snowmelt;
- Higher winter streamflow in rivers that depend on snowmelt;
- Higher winter streamflow in rain-fed river basins resulting in scouring floods that negatively affect salmon populations if winter precipitation and rain-on-snow events increases in the future as projected;
- Earlier peak (spring) streamflow in rivers that depend on snowmelt;
- Lower summer streamflow in rivers and streams; and,
- Decreased water in summer for irrigation, fish, human consumption and recreational use (more drought-like conditions).

Climate change impacts are likely to include longer-term shifts in forest types and species, potentially increasing wildfire risk and greater exposure to insects and disease. Nearshore and riverine fisheries may be subjected to increased stress due to even lower average summer stream flows (and higher summer stream temperatures) and increased acidity in Puget Sound. Agricultural sector concerns include the cost of climate adaptation, development of more climate-resilient technologies, and management and availability of adequate water supplies. Susceptibility to natural hazards is also expected to intensify due to climate change, including increased landslides, erosion, and coastal and riverine flooding due to more winter rainfall, and potential rising sea levels.

In 2007, Whatcom County completed a Climate Protection and Energy Conservation Action Plan that laid out specific actions and targets for reducing greenhouse gas emissions and increasing energy conservation efforts in response to potential climate change.

In addition many insurance industry experts are now factoring in the costs of climate change into insurance premiums as the increase in the frequency and severity of extreme weather events around the world results in a corresponding increase in claims costs.

Local government, residents and businesses must anticipate that as the climate changes, more frequent and severe damage to private and public infrastructure will

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occur. Maintenance costs and insurance premiums can be expected to increase accordingly.

Goal 10D: Strengthen the sustainability of Whatcom County's economy, natural environment, and built communities by responding and adapting to the impacts of climate change.

Policy 10D-1: Whatcom County's natural resource-based economic sectors, ecosystems, water resources, infrastructure, emergency management, and public health all face climate change related risks in the future. The County should consider potential long-range climate change implications into its on-going functional planning and implementation actions. The County should:

1. Study the resilience of its natural and built environments to the potential impacts of climate change;
2. Identify the relative vulnerability of these sectors to climate change; and,
3. Examine the adaptive capacity of these sectors to cope with or mitigate climate change and take advantage of any beneficial opportunities.

Policy 10D-2: Develop strategies that encourage a diversified and sustainable economy that is resilient to the impacts of climate change.

Policy 10D-3: Promote the efficient use, conservation, and protection of water resources.

Policy 10D-4: Pursue strategies to reduce the vehicle miles traveled (VMT) in the county by encouraging expanded availability and use of public transportation, carpooling, and non-vehicular modes of transportation.

Policy 10D-5: Establish land use patterns that minimize transportation-related greenhouse gas emissions and encourage preservation of natural resource lands and the protection of water resources.

Policy 10D-6: Convene a climate impact advisory committee by 2017. The advisory committee should consist of (but not be limited to) experts in energy efficiency and carbon emission reduction, representatives from Whatcom County, and interested community members. The committee will be tasked with:

- Evaluating Whatcom County's compliance with meeting targets set forth in the 2007 Climate Plan;
- Establishing new targets that meet or exceed state and federal climate impact goals;
- Updating the Climate Plan, at minimum every five years, or as needed to meet targets;
- Recommending updates to the Whatcom County

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Comprehensive Plan in accordance with meeting Whatcom County's emission reduction goals;

- Ensuring that Whatcom County government facilities and operations are designed to meet or exceed goals and standards resolved in the current Climate Protection and Energy Conservation Action Plan; and

- Recommend updates to Whatcom County land use policies and development regulations to support renewable energy development goals.

Policy 10D-7: Encourage sustainability by developing strategies and practices to increase the use of renewable, net-neutral carbon energy in Whatcom County facilities and County vehicles, with a goal of net zero man-made carbon emission by 2050.

Policy 10D-8: Encourage sustainability by developing strategies and practices to reduce landfill waste from Whatcom County government facilities to near zero.

Policy 10D-9: Identify responsible parties and agencies and encourage them to identify and properly seal and/or burn methane that is escaping into the atmosphere from wells.

Policy 10D-10: Create updates to Whatcom County land use policies and development regulations to support renewable energy development goals.

Policy 10D-11: Protect ecological functions and ecosystem-wide processes of Marine Resource Lands and critical areas in anticipation of climate change impacts, including sea level rise.

Comment [P/C2]: Suggested by Re-Sources, Futurewise, & WEC.
P/C approved 8-0-0 (1 absence).

Natural Hazards

Introduction

The location, climate, and geology of Whatcom County combine to create many natural hazards to people and their developments. Earthquakes, volcanoes, landslides, and flooding are some of the major natural hazards found in our region. Additionally, old mines are scattered around the county that could be dangerous to the community. Natural Hazards goals and policies are intended to provide guidance to county government as it assists its citizens in effectively managing natural hazards in a manner that minimizes the danger to each member of this community, while continuing to provide for economic opportunities.

Background Summary

Natural Hazards include the following (Map 10-4):

Landslide Hazards – The geologically recent retreat of glaciers from the Whatcom County landscape, succeed by contemporaneous geomorphic processes of erosion, sediment transport, deposition, isostatic rebound and tectonic uplift, has left many

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hillsides over-steepened and susceptible to naturally occurring and human-triggered slope failure and erosion. Several large, well-known landslides are presently active in Whatcom County, such as the Swift Creek Slide on Sumas Mountain. In addition, numerous large-scale, pre-historic slope failure deposits have been mapped by past workers and are readily identified in more recently available LiDar imagery. Various slope failure processes contribute to the mosaic of landslide hazards present in the county and the potential exists for a multitude of impacts ranging from periodic small- to large-scale rockfall and slides, massive debris slides and avalanches, destructive debris flows, and deep-seated earthflows, slumps and slides. These landslide processes act on large- and small-scale, and though much less catastrophic in nature, smaller landslides occur more frequently and pose a continual hazard to County residents and infrastructure. Certain types of geologic conditions and formations commonly cause landslides, namely the Chuckanut Formation and the Darrington Phyllite, but are also frequently observed in unconsolidated glacial sediments, in the presence of day-lighting groundwater seams and springs, on slopes in excess of 35 percent, along coastal bluffs, and in areas of fluvial erosion.

Alluvial Fan Hazards – Alluvial fan hazards areas exist where steep mountain streams flow onto floodplains or into lakes and deposit debris and sediment. Because these streams are steep and flow in confined canyons, they can carry more sediment and debris than a similar-sized stream flowing over flat land. During a large storm, streams on alluvial fans can create catastrophic flooding and debris floods, such as were experienced in 1983 in the Lake Whatcom area. During this storm event, the Sudden Valley development on Lake Whatcom incurred significant damage to property from flooding and debris flows on the Austin Creek alluvial fan.

Flood Hazards – Heavy winter rains and a transient snowpack combined with the steep and sometimes unstable slopes of Whatcom County's foothills create conditions ideal for flooding and debris flows along many of our rivers and streams. The Nooksack River floodplain alone covers 38,000 acres in Whatcom County. In 1989 and 1990, the Nooksack River overflowed and flooded lowland Whatcom County causing millions of dollars of damage. During some extreme floods, the Nooksack River overflows near Everson and adversely impacts residents along Johnson Creek in Sumas, and in the Abbotsford area of British Columbia. It is projected that climate change will increase flood risk, due to increased sea level and changes in rainfall patterns. Significant damage may result from such floods. In 1991, Whatcom County formed a countywide Flood Control Zone District to address the major flooding issues in the county.

Volcanic Hazards – The presence of Mt. Baker is an asset to our region. Its 10,778-foot peak is one of the dominant features of Whatcom County's landscape. However, Mt. Baker is also considered one of the most active volcanoes in the Cascade Range, and of the six major volcanoes in the range, Mt. Baker is considered by geologists to be very hazardous during and after an eruption. Pyroclastic flows, ash flows, and especially volcanic mudflows, also known as lahars, are believed to be the greatest dangers to human life and development in Whatcom County. Geologic evidence indicates that an eruption on Mt. Baker caused

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a major lahar about 6,600 years ago that inundated the Middle Fork Nooksack Valley from its headwaters downstream past the confluence with the North Fork at Welcome. The same lahar is now known to have been over 300 feet deep in the upper reaches of the Middle Fork and extended as far west as Nugent's Corner. A major lahar along the Nooksack would divert the river from its channel and cause mass flooding. Fortunately, volcanic eruptions are infrequent with periods of hundreds and thousands of years between events, but this infrequency also makes forecasting a volcanic eruption extremely difficult. However, a major eruption of Mt. Baker would pose a serious threat to human life and property. The deeply weathered nature of the rocks forming Mt. Baker may also fail, triggering a mudflow that would travel rapidly down the stream channels ringing the volcano and result in damage similar to that from a volcanic eruption trigger. Mapping over the past decade of other Cascade volcanoes has demonstrated massive mudflows extending from the volcanoes to Puget Sound, and from Mount Rainier and Glacier Peak.

Earthquake Hazards – Whatcom County lies within the influence of the convergent plate margin between the Pacific and North American Plate termed the Cascadia Subduction Zone. Regionally-extensive and damaging earthquakes, termed mega-thrusts, are possible when stress generated between the subducting Pacific Plate and over-riding North American Plate is released. A mega-thrust earthquake is capable of generating an earthquake of magnitude 9, or greater, and research has indicated an approximate recurrence interval of 500-600 years. Associated with the stresses generated at the convergent plate margin are shallow, crustal faults that are mapped throughout Whatcom County. Earthquake activity on these fault systems is much more frequent than that observed at the Cascadia Subduction Zone, and the Deming area is considered one of the most seismically active areas in Washington. Recent research has shown these crustal faults are capable of generating a magnitude 7 earthquake with an average recurrence interval of 30 to 50 years. While all buildings are susceptible to damage from seismic-shaking, structures built on peat soils, large areas of non-structural fill, or liquefiable soils are prone to more severe shaking during an earthquake. If the shaking is strong enough, or of sufficient duration, structures may collapse or become damaged due to building fatigue, ground settlement/liquefaction, and/or lateral spreading. In addition to seismic hazards posed by the Cascadia Subduction Zone, a significant mega-thrust earthquake has the potential to generate a large and destructive tsunami that has the potential to affect most low-bank areas of the County.

Mine Hazards – Mine hazard areas are sites of abandoned underground mine shafts, adits, and mine tailings. Coal mining was a major industry in Whatcom County in the early part of the 20th century, and several major mines were developed in various parts of the county. All of the formerly active mines are now no longer worked and are abandoned. For the most part these mine locations are known and mapped, such as the extensive coal mines under the northern part of the City of Bellingham and in the Blue Canyon area of South Lake Whatcom.

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Issues, Goals, and Policies

Landslides – Siting human development on or adjacent to known landslide hazard areas can create health and safety risks. The risks can be elevated due to extreme weather events and earthquakes, but may also occur with little or no warning. In the case of the Swift Creek Landslide, the release of asbestos-laden sediment poses an additional risk to public health. Development activity can de-stabilize naturally unstable slopes and impact ecosystems. However, predicting the exact timing, location, or extent of a damaging landslide is difficult, and in particular areas of the county landslide hazards are not possible to completely mitigate or avoid. In some circumstances, the development of upland properties may place downslope neighbors and ecosystems at risk from rockfall or landslides. A similar relationship holds true for development at the toe of a potentially unstable slope. In either event, development in proximity to landslide hazards must proceed in consideration of potential impacts in order to ensure life safety and preserve and protect public and private infrastructure.

Alluvial Fans – Because alluvial fan areas are associated with streams, are generally gently sloping and elevated above the adjacent floodplain, and are located at the base of mountains, they have historically been popular places to develop. However, once every 10-25 years, a large storm event occurs in our area and streams flood homes and developments, causing damage to property, ecosystems, and sometimes loss of lives.

Flooding – Floodwaters from the Nooksack River can damage homes, agricultural areas, businesses, and industries in the small cities situated along the river; fish and wildlife habitat and other ecosystems; and disrupt transportation and utility corridors. Storm tides can flood homes and roads along low, exposed marine shorelines in the Birch Bay, Sandy Point, Point Roberts, and Gooseberry Point areas. Homes along Lake Whatcom, Lake Samish, and Cain/Reed Lakes have also been impacted by flooding during extreme storm events. Property and public safety are also impacted by rapid channel morphology events.

Volcanos – A volcanic eruption or mudflow at Mount Baker could potentially severely affect river flow on the Nooksack River or Baker River and cause severe property damage near the volcanoes or along lahar routes. A lahar is an extremely rare and unpredictable occurrence. Evacuation routes should be planned and made public. Development should be regulated according to the Critical Areas Ordinance.

Earthquakes – A major earthquake may likely and significantly affect Whatcom County. If the shaking is strong enough, buildings may collapse, roads could be damaged, and/or communications, power, and utilities could be severely disrupted, mud and rock slides could occur on unstable slopes, and local sea levels may change as shorelines assume altered post-quake elevations.

Mines – Some abandoned mine areas may pose a risk of ground subsidence from the collapse of abandoned mine shafts. Air and water pollution may also be hazards associated with abandoned mine tailings and trapped toxic gases. Development on or near mine hazards could be adversely impacted.

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Gas wells – Several exploratory oil & gas wells have been drilled around the county over the last 70+ years. Some of these present potential environmental hazards due to ongoing leakage of gas.

Old Landfills – There are known abandoned landfills in the County and possibly some that are unknown. There are also several sites around the County that contain large numbers of abandoned vehicles and other debris. As with most landfills these locations pose some degree of risk of hazardous substances leaking into local aquifers.

Balanced Management – A central issue common to all development in natural hazard areas is the need for Whatcom County to balance the responsibility of local government to protect the public interest and provide for a safe and healthy environment while safeguarding the rights of private property owners.

Economic Impact – Damage to private and public property resulting from the siting of human development in areas of natural hazards is significant to the people of Whatcom County. The 1990 Nooksack River floods caused over \$20 million dollars in damage to roads, bridges, buildings, and farmland. Disaster relief efforts are expensive and dangerous to conduct during an emergency. Public efforts to reduce hazards, such as the establishment of the Flood Control Zone District, are also expensive.

Goal 10E: Minimize potential loss of life, damage to property, the expenditure of public funds, and degradation of ecosystems resulting from development in hazardous areas such as floodplains, landslide-prone areas, seismic hazards areas, volcanic impact areas, abandoned mine and exploratory gas well locations, potentially dangerous alluvial fans, and other known natural hazards by advocating the use of land acquisition, open space taxation, conservation easements, growth planning, regulations, and other options to discourage or minimize development, or prohibit inappropriate development in such areas.

Policy 10E-1: Avoid or minimize public investments for future infrastructure development on known natural hazard areas.

Policy 10E-2: Use Best Available Science and data to research and investigate the nature and extent of known natural hazards in the county and make this information available to the general public and policy makers in an accessible and understandable form.

Policy 10E-3: Broadly inform the people of Whatcom County of the locations of known natural hazards, and the potential for adverse impacts of such natural hazards to the health, safety, and welfare of people and their properties.

Policy 10E-4: Establish acceptable levels of public risk for development in known natural hazard areas based upon the nature of the natural hazard and levels of public risk, and maintain regulatory

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criteria for approving, disapproving, conditioning, or mitigating development activity.

Policy 10E-5: Prohibit the siting of critical public facilities in known natural hazard areas unless the siting of the facility can be shown to have a public benefit that outweighs the risk of siting in the particular hazard area.

Policy 10E-6: Maintain a comprehensive program of regulatory and non-regulatory mechanisms to achieve Natural Hazard goals and policies. This program should include such mechanisms as education, tax incentives, zoning, land use regulations, conservation easements, purchase of development rights, transfer of development rights, and public acquisition.

Policy 10E-7: Be consistent with the Natural Hazard goals and policies and consider the locations of Natural Hazard Areas when establishing or changing zoning patterns and densities.

Policy 10E-8: To address the causes of flooding and avoid expensive and maintenance-intensive bank protection measures, the County should prioritize its floodplain property acquisition program.

Policy 10E-9: Discourage new development in the floodplain.

Policy 10E-10: Require applicants for development permits located in natural hazard areas to provide development plans designed to minimize the potential to exacerbate the natural hazard as well as the risk of damage to property or threats to human health and safety. In natural hazard areas where engineering solutions cannot be designed to withstand the forces expected to occur under the design event of a particular natural hazard, or off-site adverse impacts to adjacent properties or ecosystems cannot be adequately mitigated, Whatcom County may deny development permits intended for permanent or seasonal human habitation as described in the Critical Areas Ordinance.

Policy 10E-11: Consider conducting a public process with affected citizens, technical experts, and decision-makers to establish recommended levels of public risk for each of the identified natural hazards. In developing recommended levels of public risk for natural hazards, consider the appropriate variables affecting developments in hazardous areas. These variables may include:

- Specific types of risk associated with the particular hazard area;
- The gradation of hazards associated with a particular geo-hazard;
- Level of detail necessary to map hazard areas;

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- Different levels of risk associated with different ownership classes (e.g. public ownership versus private ownership);
- Different levels of risk associated with different types of land uses; and,
- Mitigation measures related to specific adverse impacts of development in hazard areas.

Once a set of risk levels has been identified, propose these risk levels for adoption of legislation by the County Council as the level to which future development must be designed.

Policy 10E-12: Consider establishing acceptable levels of public risk for use in approving and conditioning development activity in known natural hazard areas. The established level of risk may be expressed as the potential hazard posed as determined by scientific and historical methods applicable to each specific natural hazard.

Policy 10E-13: Review the findings and recommendations of alluvial fan hazard evaluations and make appropriate recommendations for land use and zoning regulations to the County Council to assist in reducing the hazards posed on these fans. Whatcom County has completed or nearly completed alluvial fan evaluations of Canyon Creek, Jones Creek, and Glacier-Gallop Creeks.

Policy 10E-14: Review the findings and recommendations of the Comprehensive Flood Hazard Management Plan (CFHMP) and make appropriate recommendations for land use and zoning regulations to the County Council to assist in the implementation of the CFHMP.

Policy 10-15E: Identify known locations of abandoned wells that could produce methane and/or other hazardous substances and where immediate danger of methane and hazardous substance leaking exists, condition development approvals on affected parcels to mitigate those impacts.

Water Resources

Introduction

Water resources refer to the numerous surface waters such as lakes, streams, wetlands; groundwater; estuaries; and marine waterbodies within Whatcom County (**Map 10-1**). These waterbodies are often integrally linked through the complex network referred to as the water cycle. The water cycle describes the series of transformations that occur in the circulation of water from the atmosphere onto the surface and into the subsurface regions of the earth, and then back from the surface to the atmosphere. Water resources of Whatcom County provide: natural beauty; recreation; habitat for fish and wildlife; water for drinking, agriculture, and industry; and other benefits essential to the quality of life and economic health of

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the community. The quality of life and economic health of our county's communities depend on the maintenance of a safe and reliable water supply. Decisions affecting any element of the water environment must be based on consideration of the effects on other elements.

Background Summary

Whatcom County has 16 major freshwater lakes, 3,012 miles of rivers and streams, over 37,000 acres of wetlands, 134 miles of marine shoreline, and aquifers containing an undetermined amount of groundwater. These water resources serve multiple uses, including providing a source of drinking water for the people of Whatcom County. Surface water sources such as Lake Whatcom, the Nooksack River, and Lake Samish provide water to more than half the county residents, with the remainder relying on groundwater, either from individual wells or from about 300 public water systems. Agriculture relies on both ground and surface water for a variety of uses, including irrigation and drinking water for livestock. Businesses and industries may also require water, sometimes in substantial quantities, from non-potable and potable supplies. Water is also essential to meet many of what are referred to as "instream" uses, such as recreation, shellfish growing and harvesting, fish and wildlife habitat, aesthetics, and other uses and benefits.

Groundwater is contained in aquifers, which are subterranean layers of porous rock or soil. Most of the surficial aquifers in Whatcom County are replenished by rainwater. Aquifers are often integrally linked with surface water systems and are essential for meeting instream and out-of-stream water needs such as for drinking water, agriculture, industry, and other uses.

Rainfall that runs into drainage courses such as ditches, streams, wetlands, rivers, lakes, and the Strait of Georgia supports local surface and marine waters. Natural drainage systems have many important functions, including storing excess water flow, purifying surface water, recharging groundwater, conveying water, and supporting important biological activities. As more areas in Whatcom County are being urbanized, natural water resource systems are being replaced with built systems, leading to permanent changes in hydrology.

Whatcom County government has a major role in helping to maintain these benefits through its many responsibilities and programs, particularly in the areas of health, safety, land use, and development. The intent of the following goals and policies is to provide guidance to Whatcom County government as it assists its citizens in effectively managing our water resources in a manner that ensures that the benefits of those resources are maintained far into the future. The water resource section focuses primarily on groundwater and surface water management. Surface water management relates generally to watershed protection and stormwater/drainage systems. However, some policy direction may indirectly be provided for areas such as wetlands, estuaries, streams, and marine waterbodies within the Water Resource section. Some of these areas are covered in more detail in other sections within the Environment Chapter.

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Whatcom County Water Resource Programs

Whatcom County has and/or participates in numerous water resource programs aimed at protecting and enhancing water quality and quantity, including:

- WRIA 1 Watershed Management Project;
- Lake Whatcom Watershed Management;
- Groundwater Protection & Management;
- Flood Hazard Management; and,
- Stormwater Management.

WRIA 1 Watershed Management Project

The WRIA 1 Watershed Management Project is the result of the 1998 Washington State Watershed Management Act, which required all participating local governments to address water quantity, with the option of addressing water quality, instream flows, and fish habitat. The WRIA 1 Watershed Management Project has brought together citizens, local governments, tribes, and state and federal agencies to address these issues.

The framework for watershed management in the state is based on geographic areas known as Water Resource Inventory Areas (WRIAs). WRIA 1 includes the Nooksack River basin and several adjoining smaller watersheds, such as the coastal drainages of Dakota and California Creeks, as well as Lake Whatcom.

Watershed planning in WRIA 1 started in 1998 with the signing of a Memorandum of Agreement (MOA) between the *Initiating Governments*. In the WRIA 1 the Initiating Governments are Whatcom County, City of Bellingham, Public Utility District No. 1, Lummi Nation, and Nooksack Tribe (the latter joining slightly later through a Letter of Agreement). The role of the Initiating Governments was to review a recommended Watershed Plan and take it to their governments' councils for adoption.

Historical Organization (1999-2016)

WRIA 1 Joint Board

In 1999, an Interlocal Agreement further formalized the government-to-government relationship essential to the tribes' participation in the process by creating a *Joint Board*. The Joint Board is comprised of the Initiating Governments, including the mayor of the City of Bellingham, executive for Whatcom County, manager of Public Utility District No. 1, and designated policy representatives of Lummi Nation and Nooksack Tribe. The Board manages the project's administrative functions such as contracts and budgets. Members of the Joint Board also sit on the Joint Policy Boards.

WRIA 1 Joint Policy Boards

The WRIA 1 Joint Policy Boards are comprised of members of the WRIA 1 Joint Board and Salmon Recovery Board. This organizational level interacts with federal, state, and regional organizations at a policy-level to coordinate the implementation

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and management of the WRIA 1 Watershed Management Plan – Phase 1, the WRIA 1 Salmonid Recovery Plan and other related activities.

Local Integrating Organization (LIO)

The Whatcom Local Integrating Organization (LIO) is a function of the WRIA 1 Watershed Joint Board and WRIA 1 Salmon Recovery Board (Joint Policy Boards). Local integrating organizations are designated by the Puget Sound Partnership. The two WRIA 1 Boards accepted the function of the Whatcom LIO in October 2010 under the integrated program structure, and was officially recognized by the Puget Sound Partnership's Leadership Council in November 2010. The purpose of the Whatcom LIO is to coordinate implementation of Puget Sound Action Agenda priorities that are consistent with or complement local priorities. One of its functions is to provide a local update to the Action Agenda for Puget Sound. Local updates are intended to identify local priorities in the form of near-term actions (NTAs), which are priority actions with measurable outcomes that can be implemented in the next two years and that align with strategies in the Action Agenda for Puget Sound.

WRIA 1 Planning Unit

The Initiating Governments established the Planning Unit to ensure representation of a broad range of water resource interests. The Planning Unit's role is to recommend actions for a Watershed Plan and to contribute knowledge, interests, technical expertise, and other resources to its development. The Planning Unit is made up of representatives from the Initiating Governments, other governments, and various caucuses. There are 16 total caucuses on the WRIA 1 Planning Unit.

Organizational Update (2016)

Through an interlocal agreement entered into in 2016, the Watershed Management Project Joint Board and the WRIA 1 Salmon Recovery Board were dissolved and the duties and functions of those boards were assumed by the new WRIA 1 Watershed Management Board, consisting of one representative from the Lummi Nation, the Nooksack Tribe, the Washington State Department of Fish and Wildlife, Whatcom County, Whatcom County PUD No. 1, and the cities of Bellingham, Blaine, Everson, Ferndale, Lynden, Nooksack, and Sumas.

The primary functions of the WRIA 1 Watershed Management Board are to:

- Facilitate implementation and adaptive management of the WRIA 1 Watershed Management Plan-Phase 1 as currently constituted or subsequently amended;
- Coordinate the implementation and adaptive management of the WRIA 1 Salmonid Recovery Plan and associated implementation documents,
- Serve as the WRIA 1 Salmon Recovery Lead Entity pursuant to RCW 77.85,
- Coordinate participation in Puget Sound salmon recovery efforts,
- Coordinate the development, implementation and adaptive management of WRIA 1 watershed chapters of recovery plans for ESA listed salmonids and other salmonid species as warranted;

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- Coordinate planning, implementation, monitoring and adaptive management of ecosystem recovery actions in WRIA 1 consistent with agreed local goals and objectives,
- Serve as the WRIA 1 Local Integrating Organization and a partner in the Puget Sound Partnership in representing WRIA 1 goals and priorities; and
- Participate in other related activities as agreed to by the Board.

The roles of the Local Integrating Organization and Planning Unit did not change.

2005 WRIA 1 Watershed Management Plan – Phase 1

The 2005 WRIA 1 Watershed Management Plan was approved in 2005 by the Joint Administrative Board, Planning Unit (by consensus), and the County Council. Pursuant to subsequent state requirements, a WRIA 1 Watershed Detailed Implementation Plan was approved by the Joint Administrative Board, Planning Unit, and County Council in 2007. It provides a roadmap for addressing water quantity, water quality, instream flow, and fish habitat challenges. The goals of the WRIA 1 Watershed Management Project are: water of sufficient quantity and quality to meet the needs of current and future human generations; restoration of salmon, steelhead, and trout populations to healthy harvestable levels; and the improvement of habitats on which fish and shellfish rely. These goals are addressed more specifically below:

- **Water Quantity** – To assess water supply and use, and develop strategies to meet current and future needs. The strategies should retain or provide adequate amounts of water to protect and restore fish habitat, provide water for future out-of-stream-uses, and ensure adequate water supplies are available for agriculture, energy production, and population and economic growth under the requirements of the state's Growth Management Act.
- **Water Quality** – To ensure the quality of our water is sufficient for current and future uses, including restoring and protecting water quality to meet the needs of salmon and shellfish, recreational uses, cultural uses, protection of wildlife, providing affordable and safe domestic water supplies, and other beneficial uses. The initial objectives of the water quality management strategy will be to meet the water quality standards.
- **Instream Flow** – To supply water in sufficient quantities to restore salmon, steelhead, and trout populations to healthy and harvestable levels and improve habitats on which fish rely.
- **Fish Habitat** – To protect or enhance fish habitat in the management area and to restore salmon, steelhead, and trout populations to healthy and harvestable levels and improve habitats on which fish rely.

In 2010, the WRIA 1 Joint Board adopted a work plan, budget, and financing strategy, called the Lower Nooksack Strategy, to advance a negotiated settlement of Tribal and state instream flow water rights on the mainstem of the Nooksack River, while maximizing the economic and environmental benefits of out-of-stream water use in the Lower Nooksack sub-basin. The Joint Board adopted the Lower Nooksack Strategy consistent with WRIA 1 Watershed Management Plan priorities.

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Lower Nooksack Strategy Objectives:

- Develop and implement a process for negotiating settlement of water rights on the Mainstem Nooksack River.
- Update and verify the Lower Nooksack River sub-basin water budget and develop a groundwater model.
- Determine out-of-stream water user needs:
 - Public water system needs determined by updated the Whatcom County Coordinated Water System Plan (CWSP).
 - Other out-of-stream user needs (e.g., agriculture, private domestic wells, industrial, etc.) determined through a regional water supply planning process.
- Continue and, if appropriate, enhance targeted streamflow and water quality sampling.
- Advance work on tools that foster water resource allocations consistent with long-term economic and environmental land-use goals for implementation in five years.

Streamflow Restoration Act (ESSB 6091)

The Streamflow Restoration Act (ESSB 6091), enacted by the Washington State Legislature on January 18, 2018 and effective on January 19, 2018, directs the Department of Ecology to work with the initiation governments (i.e., the WRIA 1 Watershed Management Board), in collaboration with the planning unit established pursuant to chapter 90.82 RCW, on updating the WRIA 1 Watershed Management Plan for approval by the Whatcom County Council by February 1, 2019.

The Act requires that the updated plan include recommendations for projects and actions that will measure, protect, and enhance instream resources and improve watershed functions that support the recovery of threatened and endangered salmonids. Such recommendations may include, but are not limited to, acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure, which includes, but is not limited to, such projects as floodplain restoration, off-channel storage, and aquifer recharge. Qualifying projects must be specifically designed to enhance streamflows and not result in negative impacts to ecological functions or critical habitat.

At a minimum, the watershed plan must include those actions determined to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use. The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary. Lower priority projects include projects not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods. The watershed plan may include projects that protect or improve instream resources without replacing the consumptive quantity of water where such projects are in addition to those actions

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determined to be necessary to offset potential consumptive impacts to instream flows associated with permit-exempt domestic water use.

Until the updated watershed plan is approved and rules are adopted by the Department of Ecology, the County, in issuing building permits under RCW 19.27.097(1)(c) or approving subdivisions under chapter 58.17 RCW in WRIA 1, will comply with all of the specific requirements of ESSB 6091.

Lake Whatcom Watershed Management

Lake Whatcom is a large multi-purpose reservoir that is the source of drinking water for the City of Bellingham, Lake Whatcom Water and Sewer District, several other smaller water districts/associations, and about 250 homes that draw water directly from the lake. The lake provides water to about half the population of Whatcom County.

Lake Whatcom is a multiple use lake and watershed. In addition to providing water for drinking, commercial, and industrial uses, the lake is used for boating, swimming, and fishing. The majority of the watershed is forested, mainly surrounding the large southernmost portion of the lake. Other land uses include residential development (approximately 5,300 homes are located within the watershed), limited agriculture and commercial development, parks, and other public facilities. The on-going management challenge is trying to determine the extent to which these practices can occur while maintaining safe, clean drinking water. The challenge is further complicated by possible requirements related to the Endangered Species Act, tribal water rights, and the potential impact these issues may have on how the City's diversion from the Nooksack River is operated.

The watershed contains four developed areas: the City of Bellingham, which straddles the upper portion of the northern-most basin of the lake; Geneva, which is immediately south and east of Bellingham's city limits and is part of the city's urban growth area; Hillsdale, which is immediately north and east of Bellingham's city limits and is also part of the city's urban growth areas; and the Sudden Valley Rural Community. In addition, it includes a variety of other zones, including resource, rural, and residential rural zones. Outside the Bellingham City limits, approximately 70% of the watershed is in Forestry zoning and more than 75% of the current land use is forestry.

Water and sewer service are provided by the Lake Whatcom Water and Sewer District. Capacity problems in the district's sewer line, which serves Geneva and Sudden Valley, have caused overflows into the lake in the past. An aggressive program to preclude stormwater infiltration has reduced the overflow problems to a large extent. In addition, the district has a contractually limited flow capacity to Bellingham. The Lake Louise Road sewage interceptor was constructed in January 2003 to carry waste water from Sudden Valley and Geneva and serves as a complement to the Lake Whatcom Boulevard trunk line. The interceptor was designed to service full build-out of Sudden Valley and Geneva.

The City of Bellingham and Lake Whatcom Water and Sewer District are responsible for ensuring drinking water standards are met for their customers. To date water supplies have consistently met standards. The ability to continue to economically

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1 meet drinking water standards requires maintaining source water that requires
2 minimal treatment. For this reason the City of Bellingham maintains an on-going
3 source water-monitoring program. Other agencies including Western Washington
4 University, Department of Natural Resources, Department of Fish and Wildlife,
5 Department of Ecology, Lake Whatcom Water and Sewer District, and Whatcom
6 County, have also conducted monitoring, studies, and/or evaluations of the lake
7 and watershed.

8 Studies on Lake Whatcom conducted over a number of years indicate water quality
9 in the lake has declined. In 1998, the Washington State Department of Ecology
10 listed Lake Whatcom as an impaired water body and placed Lake Whatcom on the
11 Federal Clean Water Act 303(d) list because of low oxygen levels in the Lake and
12 high bacteria levels in streams that flow into the Lake. The 303(d) listing requires
13 the establishment of a Total Maximum Daily Loads (TMDLs). The Department of
14 Ecology issued the "Lake Whatcom Watershed Total Phosphorus and Bacteria Total
15 Maximum Daily Loads: Volume 1, Water Quality Study Findings" in 2008. This study
16 documented Lake Whatcom is impaired for dissolved oxygen due to phosphorus
17 loading and that streams flowing into Lake Whatcom do not meet fecal coliform
18 bacteria standards. Loading capacities for total phosphorus and bacteria reduction
19 targets were set forth in this document. In 2013 The Department of Ecology issued
20 a draft "Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum
21 Daily Loads: Volume 2, Water Quality Improvement Report and Implementation
22 Strategy." This report identifies how much phosphorus can be discharged to the
23 Lake and identifies how the bacteria load should be allocated between the County
24 and City of Bellingham, in order to meet water quality standards.

25 A significant cause of declining oxygen levels has been from residential
26 development in the watershed. Past development permitted by the City of
27 Bellingham and Whatcom County has led to increased phosphorus loading into the
28 lake, which stimulates algae growth. Bacteria that consume the dying algae deplete
29 the dissolved oxygen, leading to lower oxygen levels in the lake. Past poorly
30 managed forest practices may have led to significant increases in phosphorus
31 loading to the lake.

32 Whatcom County has taken a number of actions to reduce phosphorus and
33 otherwise address Lake Whatcom water quality. These include rezoning land to
34 allow less development in the watershed, adoption of the Lake Whatcom
35 Comprehensive Stormwater Management Plan, revising stormwater management
36 standards for private development to significantly reduce potential phosphorus
37 runoff, construction of stormwater capital improvement projects and adoption of
38 regulations that restrict the application of commercial fertilizers.

39 In 2014, approximately 8,800 acres of forest lands around Lake Whatcom were
40 transferred to Whatcom County from the Washington Department of Natural
41 Resources through reconveyance. These lands will provide passive recreation
42 opportunities with hiking and biking trails connecting various communities,
43 neighborhoods, and parks throughout the watershed. Under County ownership, the
44 forests will be allowed to mature to an older growth environment benefiting the
45 watershed and helping to stabilize steep slopes that surround the lake.

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In 2004, the Department of Natural Resources (DNR) Board on Natural Resources adopted the Lake Whatcom Landscape Plan. This plan provides additional protections on remaining state managed lands within the Lake Whatcom watershed. The plan provides additional protections on streams and potentially unstable slopes not normally included in forest practices in Washington State.

Lake Whatcom Watershed Management Program

A variety of agencies, organizations, and individuals play a role in managing and protecting Lake Whatcom. In an effort to coordinate efforts of these various players, in 1990, the City of Bellingham, Whatcom County, and Water District 10 (now known as the Lake Whatcom Water and Sewer District) began meeting to develop a joint management strategy for the Lake Whatcom watershed.

In November/December 1992, a joint resolution was passed by the Bellingham City Council, Whatcom County Council, and the Lake Whatcom Water and Sewer District (formerly Water District 10) Commissioners, which reaffirmed this position with six general goal statements and a set of specific goal statements in various categories. The specific goal statements for urbanization were the following:

- Prevent water quality degradation associated with development within the watershed.
- Review and recommend changes in zoning and development potential that are compatible with a drinking-water reservoir environment.
- In addition to zoning, identify and promote other actions to minimize potential for increased development in the watershed (i.e. land trust, development rights, cost incentives, etc.).
- Develop specific standards which reduce the impacts of urbanization, such as minimal lot clearing; clustered development to reduce infrastructure; collection and treatment of stormwater before entering the lake.
- Develop appropriate interlocal agreements with governing agencies to prohibit the potential for additional development once an agreed upon level is set.

The joint resolution included goals for watershed management that extended beyond urbanization. Goals were included for stormwater management, on-site waste systems, conservation, forest management, spill response, hazardous materials transport and handling, data/information management, education/public involvement, and other topics. A joint strategy was approved for developing specific plans to meet the adopted goals. Eight high priority goals were selected first and plans have been completed and jointly adopted for each of the goals.

In 1998, the City, County, and District 10 formalized their joint commitment to protect and manage the lake through the joint adoption of an interlocal agreement and allocation of funding toward protection and management efforts in the watershed. A five-year program plan was developed for ten program areas. Specific priority was placed on activities related to watershed ownership, stormwater management, and urbanization/land development.

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The resulting Lake Whatcom Management Program guides actions to protect Lake Whatcom as a long-term supply of drinking water for the City of Bellingham and portions of Whatcom County. The program emphasizes protection over treatment in managing Lake Whatcom and its watershed. The structure of the Lake Whatcom Management Program includes legislative bodies, a management team, an interjurisdictional coordinating team, agency staff, and advisory committees.

The Lake Whatcom Watershed Management Program website (<http://www.lakewhatcom.whatcomcounty.org/resources>) contains the management plans, reports, and work programs, as well as the jurisdictions' pertinent regulations and brochures on the different programs aimed at the various efforts to improve water quality.

Sudden Valley

Sudden Valley is a community within the Lake Whatcom Watershed. It was established in the early 1970s as a recreation/resort area but over the last thirty years has developed into a significant residential area.

Since 1985, Sudden Valley has mandated the use of appropriate stormwater best management practices through standards for individual stormwater detention for all new construction. Any new building permits on existing lots must be able to demonstrate that stormwater detention is included in the plan as a precondition to issuance of a permit. Sudden Valley is also subject to additional regulatory protections that apply to the Lake Whatcom Watershed under the Water Resource Protection Overlay District, Stormwater Special District, and Water Resource Special Management Area requirements. Under the provisions of these special districts, potential impacts from impervious surfaces, stormwater runoff, and clearing activities are required to be addressed either on-site or through a community-wide process.

Groundwater Protection & Management

Groundwater is contained in aquifers, which are subterranean layers of porous rock or soil. Most aquifers are replenished by rainwater, though some may contain water trapped during glacial periods. Aquifers are often integrally linked with surface water systems and are essential for meeting instream and out-of-stream water needs, such as for drinking water, agriculture, and industry. Whatcom County residents rely heavily on groundwater for drinking water, agriculture, and commercial and industrial needs. Groundwater also plays an important role in maintaining stream flows.

Many studies have been conducted related to groundwater quality in Whatcom County documenting water quality issues, such as exceedances of standards for nitrate, ethylene dibromide (EDB) and 1,2-dichloropropane (1,2-D), pesticides, iron and other agricultural-related contaminants, particularly in the northern portion of the County. In general, groundwater in Whatcom County is very vulnerable to contamination because much of the County's groundwater lies within a shallow unconfined aquifer. Activities that occur on the surface of the ground directly affect groundwater quality. Shallow wells that draw water from unconfined water table aquifers are at highest risk.

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Whatcom County's Critical Areas Regulations protect Critical Aquifer Recharge Areas (CARAs) during the development process, by precluding certain uses in CARAs and/or requiring certain precautions be taken in handling certain chemicals.

Flood Hazard Management

A comprehensive approach to flood hazard management planning provides a better understanding of the river and floodplain system. It also ensures flooding and channel morphology problems are not simply transferred to another location within the basin, but are addressed in a comprehensive, basinwide manner. This approach directs future flood hazard management expenditures in the most efficient and cost effective manner.

Whatcom County Public Works coordinates with the Flood Control Zone District Advisory Committee (FCZDAC) to identify and characterize flooding problems and provide recommendations for achieving consistent, long-term flood hazard reduction strategies. Some activities typically involved in developing a Comprehensive Flood Hazard Management Plan (CFHMP) include data collection, hydraulic modeling, alternatives analysis, floodplain mapping, and meander limit identification. In addition to the technical components in comprehensive flood planning, extensive coordination with the public and other agencies is required throughout the planning process.

Other County flood management programs include:

Early Flood Warning – Work with the United States Geological Survey (USGS) to maintain a network of early flood warning stations to help citizens prepare and take appropriate measures to protect lives and property from flood damages.

Flood Hazard Reduction Program – Implement projects to reduce future flood damages and public expenditures to repair damaged areas. Examples include construction of setback levees and overflow spillways, and designation of overflow corridors in overbank areas. Two alluvial fan studies have been completed for Jones Creek and Canyon Creek. For Jones Creek, review of potential mitigation measures and concept design of a preferred approach has also been completed.

Comprehensive Flood Hazard Management Planning – Identify flooding problems and provide recommendations for achieving long-term flood hazard reduction strategies. The Lower Nooksack River Comprehensive Flood Hazard Management Plan was adopted in 1999. Implementation of the plan is ongoing.

Preparedness and Response – Plan for and implement a coordinated response during flood events to ensure public safety and minimize flood damages.

National Flood Insurance Program – Participate in the Congress-initiated National Flood Insurance Program (NFIP) of 1968, to make affordable flood insurance available to citizens of communities that adopt approved flood management regulations.

Repair and Maintenance Program – Address problem areas with rivers, streams, and coastlines of Whatcom County, and mitigate future flood damages in a proactive and cost-effective manner.

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Technical Assistance – Provide technical assistance regarding drainage and flood issues to private citizens and businesses located along the many waterbodies within Whatcom County.

Organization

Flood Control Zone District (FCZD)

Following the severe floods of 1989 and 1990, in 1992 Whatcom County created the countywide Flood Control Zone District (FCZD), including both incorporated and unincorporated areas of the County. The FCZD is a quasi-municipal corporation that is a separate legal entity from Whatcom County government. Even though this legal separation exists, the Whatcom County Council and the County Executive (Board of Supervisors) and the Public Works Department (staff) perform the governance and administrative support for the district.

The primary purpose of the FCZD is flood hazard management. Revenue generated to for this purpose is accomplished in two ways: (1) a county-wide uniformly applied tax; and, (2) supplemental revenue generated within localized Diking Districts and Sub-Flood Districts where specific local project activity is planned.

While the primary purpose of the FCZD is flood hazard management, the district is allowed to address a wide variety of water resource issues. Due to this ability, revenue generated by the district is currently used to finance additional water supply and water quality related improvement projects.

Pertinent Documents

Lower Nooksack River Comprehensive Flood Hazard Management Plan (CFHMP)

In 1999, the county adopted the Lower Nooksack River Comprehensive Flood Hazard Management Plan (CFHMP). The CFHMP identifies projects, programs, and other recommendations aimed at reducing future flood damages along the Lower Nooksack River.

Critical Areas Regulations (WCC 16.16)

Whatcom County's Critical Areas Regulations aim to protect people and property in Frequently Flooded Area (FFAs) by requiring development in these areas conforms to WCC Title 17, Flood Damage Prevention.

Stormwater Management

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the land surface. The addition of roads, driveways, parking lots, rooftops, and other surfaces that prevent water from soaking into the ground greatly increases the runoff volume created during storms. This runoff is swiftly carried to our local streams, lakes, wetlands and rivers and can cause flooding and erosion. Stormwater runoff also picks up and carries with it many different pollutants that are found on paved surfaces, such as sediment, nitrogen, phosphorus, bacteria, oil and grease, trash, pesticides, and metals.

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County Stormwater Management Programs

National Pollutant Discharge and Elimination System (NPDES) Phase II Permit

Stormwater runoff picks up pollutants as it travels over our developed landscapes and is a major source of water quality problems. In 1987, the Federal Clean Water Act was amended to address stormwater pollution. As a result, the United States Environmental Protection Agency (EPA) created the National Pollutant Discharge Elimination System (NPDES) to address stormwater runoff. States are required to administer permits to local jurisdictions to regulate runoff as part of the NPDES Program. The Permit is referred to as the "NPDES Phase II Permit" or "Phase II Municipal Stormwater Permit".

In February of 2007, the Washington State Department of Ecology issued Whatcom County's Phase II Municipal Stormwater Permit. This permit regulates discharges from Small Municipal Separate Storm Sewers, and is part of the National Pollutant Discharge and Elimination System (NPDES) and State Waste Discharge General Permit. It sets forth requirements of municipalities to address stormwater runoff in areas determined to have population densities reaching urban standards. Whatcom County is required to implement various stormwater management strategies to comply with this State permit.

The current Permit boundary covers approximately 15,000 acres and generally includes the following areas (Figure 1):

- Bellingham Urban Growth Area
- Sudden Valley
- Portions of the Hillsdale and Emerald Lake area
- Portions along North Shore Drive on Lake Whatcom and Lake Whatcom Boulevard
- Ferndale Urban Growth Area
- Portions along Chuckanut Drive and Chuckanut Bay
- Birch Bay Urban Growth Area

Additionally, though not within the NPDES permit area, the County has made the entire Lake Whatcom watershed is subject to the illicit discharge detection and elimination requirements of the Permit through ordinance and agreement with the Department of Ecology.

Jurisdictions are allowed to discharge runoff into waterbodies of the State (such as rivers, lakes, and streams) as long as they implement programs that protect water quality by reducing pollutants to the maximum extent possible through requirements of the NPDES Phase II Permit. Those requirements are reported and submitted to the Department of Ecology through the Stormwater Management Program (SWMP) and the Annual Compliance Report.

The Western Washington Phase II Municipal Stormwater Permit is required by the State of Washington Water Pollution Control Law Chapter 90.48 RCW, and the Federal Water Pollution Control Act Title 33 United States Code (Clean Water Act). The Permit is administered by the Washington State Department of Ecology.

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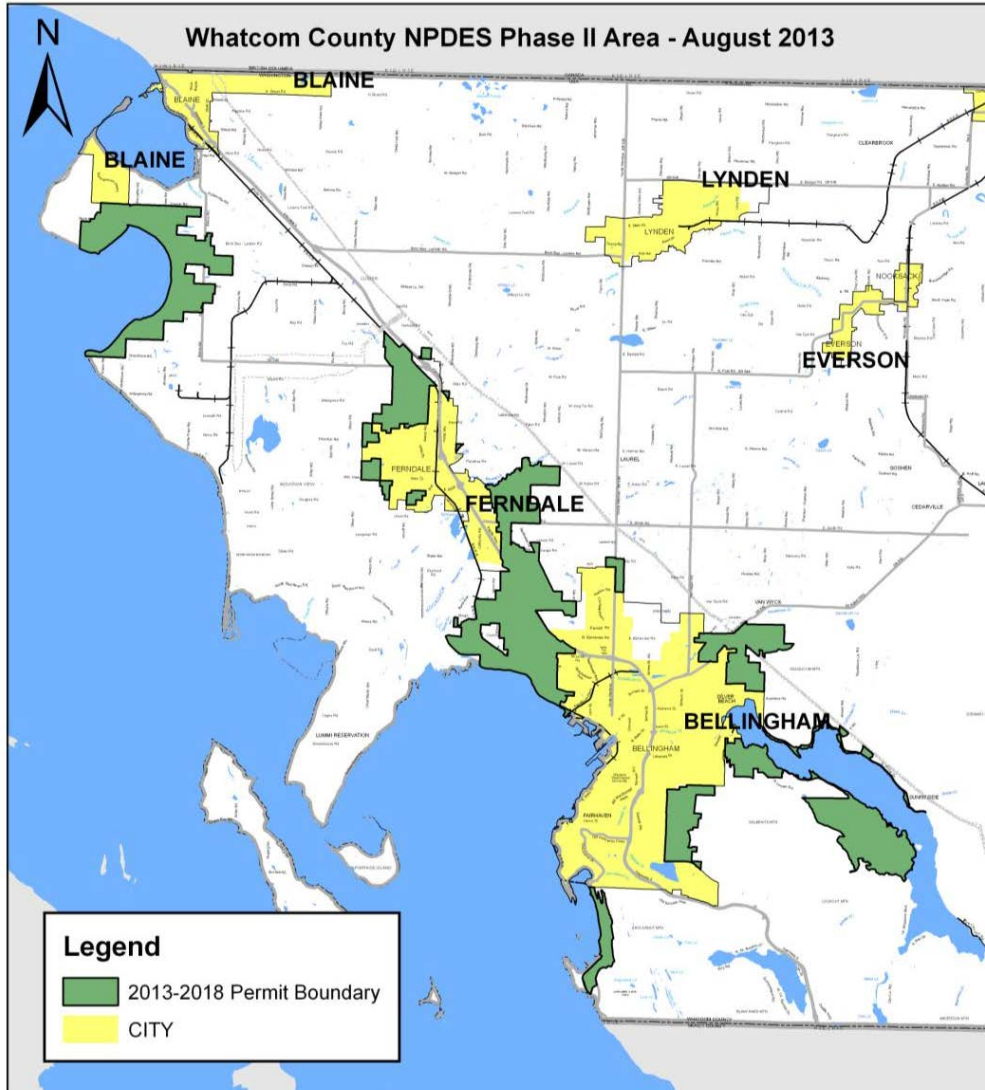


Figure 1. NPDES Phase II Boundaries

Pollution Identification and Correction (PIC) Program

Clean water supports healthy drinking water, safe recreational uses, quality water for irrigation and livestock, healthy fish, and shellfish that are safe to consume. Currently, many streams in Whatcom County do not meet water quality standards for fecal coliform bacteria. Fecal coliform bacteria are found in the intestinal tract of warm-blooded animals and when found in streams are an indicator of human or animal waste in the water. The higher the bacteria level, the greater the public health risk to people drinking water, wading, fishing, or consuming shellfish. The

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Pollution Identification and Correction (PIC) Program was created to help implement community solutions to clean water.

Pollution – The key potential sources of bacteria that have been identified in Whatcom County coastal drainages are (1) **animal waste** from agricultural operations, domestic pets, waterfowl, and wildlife, and (2) **human sewage** from failing on-site sewage systems (OSS), leaking sewers, or cross-connections.

Identification – Whatcom County coordinates a routine water quality monitoring program at approximately 90 stations in watersheds that discharge to marine waters. Samples are collected on at least a monthly basis and analyzed for fecal coliform bacteria. Results are evaluated annually to identify focus areas with the largest bacteria problems. Within the focus areas, stream segments are monitored and potential bacteria sources are identified.

Correction – Technical and financial resources are offered to landowners to identify and implement solutions on their property. Residents can help improve the community's water quality by inspecting and maintaining septic systems and by fencing animals out of streams, ditches and swales. By actively managing pastures, creating protected heavy use areas, and covering manure storage areas, residents can prevent manure-contaminated mud from polluting surface water. Planting shrubs and trees along stream banks and picking up after dogs also contributes to better water quality.

Issues, Goals, and Policies

Watershed Planning and Management

Goal 10F: **Protect and enhance water quantity and quality and promote sustainable and efficient use of water resources.**

Policy 10F-1: Maintain as a high priority the protection of water quality and quantity.

Policy 10F-2: Actively participate in and support efforts to coordinate local, federal, tribal, and state agencies to achieve integration and/or consistency between the various levels of environmental regulations relating to the County.

Policy 10F-3: Work cooperatively with Federal, State, and local jurisdictions, Tribal governments, municipal corporations, and the public to implement the goals and policies of the Comprehensive Plan as well as state water resources and water quality laws.

Policy 10F-4: Participate in the coordination of all local water and land management efforts, plans, and data to ensure adequate oversight of water quantity and quality issues.

Policy 10F-5: Manage water resources for multiple instream and out-of-stream beneficial uses, including instream flows set by the State Department of Ecology.

Policy 10F-6: Actively promote and participate in education, research, and information opportunities that improve our understanding of the

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county's complex water resource systems. New information should be considered in the development and evaluation of management actions.

Policy 10F-7: Pursue the most effective methods for protecting water quantity and quality, through both regulatory (e.g. zoning, enforcement, fines) and non-regulatory approaches (education, incentives, and technical/financial assistance). Emphasis shall be placed on non-regulatory approaches where possible and effective.

Policy 10F-8: Track the development of policies and regulations at the local, state, and federal level. Provide input to those regulations and policies as necessary to ensure that the interests of Whatcom County are considered.

Policy 10F-9: In conjunction with all jurisdictions, develop and adopt programs to protect water quality and quantity within watersheds, aquifers, and marine waterbodies that cross jurisdictional boundaries.

Policy 10F-10: Promote awareness and participation in management and protection efforts by individual citizens and the community as a whole.

Policy 10F-11 Pursuant to ESSB 6091, Whatcom County will work through the Planning Unit and WRIA 1 Watershed Management Board and its established processes to update the WRIA 1 Watershed Management Plan, consistent with ESSB 6091, for approval by the Whatcom County Council by February 1, 2019. The updated plan shall include recommendations for projects and actions that will measure, protect, and enhance instream resources and improve watershed functions that support the recovery of threatened and endangered salmonids.

At a minimum, the watershed plan must include those actions determined to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use. The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary. Lower priority projects include projects not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods. The watershed plan may include projects that protect or improve instream resources without replacing the consumptive quantity of water where such projects are in addition to those actions determined to be necessary to offset potential consumptive impacts to instream flows associated with permit-exempt domestic water use.

Watershed plan recommendations may include, but are not limited to, acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and

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developing natural and constructed infrastructure, which includes, but is not limited to, such projects as floodplain restoration, off-channel storage, and aquifer recharge. Qualifying projects must be specifically designed to enhance streamflows and not result in negative impacts to ecological functions or critical habitat.

Until the updated watershed plan is approved and rules are adopted, the County, in issuing building permits under RCW 19.27.097(1)(c) or approving subdivisions under chapter 58.17 RCW in WRIA 1 will comply with all of the specific requirements of ESSB 6091.

Surface Water and Groundwater

Goal 10G: Protect and enhance Whatcom County's surface water and groundwater quality and quantity for current and future generations.

Policy 10G-1: Manage surface water systems on a watershed basis.

Policy 10-2G: Coordinate efforts to bring all water users in Whatcom County into compliance with state and federal water laws in a way that enhances stream flows, water quality, and fish and wildlife habitat while advocating for adequate water for existing agriculture.

Policy 10G-3: In conjunction with the public and appropriate local, state, Tribal, and federal jurisdictions, define, identify, and develop management strategies for watershed basins and subbasins that may require special protection. These areas may include aquifers, critical aquifer recharge areas as defined under the Growth Management Act, Groundwater Management Areas, wellhead protection areas, and high priority watersheds such as those specified under WAC 400 (Local Planning and Management of Non-point Source Pollution), WRIA Watershed Management Planning, and under legislative policy direction (e.g. Nooksack Basin, Lake Whatcom, Lake Samish and Drayton Harbor).

Policy 10G-4: Management efforts should consider both water quality and quantity. Water quality efforts should help reduce the likelihood that potential contaminant sources will pollute water supplies. Water quantity efforts should include consideration and protection of recharge areas and potential effects on stream flow.

Policy 10G-5: Support the implementation of local and state Watershed Management Plans, the Lower Nooksack Strategy, the Lake Whatcom Management Program, NPDES Phase II Permitting, and the WRIA Watershed Management Projects.

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- 1 Policy 10G-6: Pursue the adoption and implementation of ground and/or
2 surface water management plans and their integration into local
3 comprehensive plans. Designate the Lake Whatcom and Lake
4 Samish Watersheds as high priorities in this effort.
- 5 Policy 10G-7: Oppose the use of hydraulic fracturing in oil and gas wells (also
6 known as “fracking”) to avoid the potential degradation of water
7 quality in aquifers and other groundwater.
- 8 Policy 10G-8: Monitor, prevent, and reduce the establishment of invasive
9 species in Whatcom County waterbodies.
- 10 Policy 10G-9: Identify and/or update wellhead protection areas and critical
11 aquifer recharge areas and incorporate into the Critical Areas
12 Ordinance. This information should be available to the public.
- 13 **Stormwater and Drainage**
- 14 **Goal 10H: Protect water resources and natural drainage systems by**
15 **controlling the quality and quantity of stormwater runoff.**
- 16 Policy 10H-1: Manage stormwater runoff to minimize surface water quality and
17 quantity impacts and downstream impacts on channel
18 morphology, property owners, and aquatic species and habitats.
- 19 Policy 10H-2: Maintain or enhance, when appropriate, natural drainage
20 systems and natural water storage sites in order to better
21 protect water quality, moderate water quantity, minimize
22 environmental degradation, and reduce public costs.
- 23 Policy 10H-3: Limit the alteration of natural drainage systems and natural
24 water storage sites without mitigating measures. Such
25 measures should not degrade water quality or fish and wildlife
26 habitat and should not increase hazards to the community.
- 27 Policy 10H-4: Support the use by resource industries—such as agriculture,
28 forestry, and mineral resource extraction—of management
29 practices that minimize erosion and sedimentation, and
30 significantly reduce pollutants.
- 31 Policy 10H-5: Evaluate the role of watersheds in the maintenance of water
32 quality and quantity and determine what cumulative impacts
33 development activity may have on watershed hydrology.
- 34 Policy 10H-6: Develop specific stormwater management programs for each
35 drainage basin within the county's jurisdiction that may be
36 impacted by urban levels of development. Recognize the Lake
37 Whatcom Watershed, Lake Samish, and Drayton Harbor as high
38 priorities in this effort. Coordinate efforts with the Lake
39 Whatcom Policy Group, the various shellfish protection districts,
40 and other watershed management entities.

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- 1 Policy 10H-7: Establish, as a high priority, a stormwater maintenance program
2 that ensures that stormwater systems are adequately
3 maintained and function at or near design capacity.
- 4 Policy 10H-8: Strongly incentivize the use of low impact development
5 strategies. Minimize the amount of impervious surface whenever
6 practicable by using natural engineering design methods such as
7 the use of open, grassed, street swales and rain gardens instead
8 of curbs and gutters. Where feasible, encourage alternate
9 surfacing options and other techniques associated with low
10 impact development (see Glossary).
- 11 Policy 10H-9: Develop and administer stormwater management standards as
12 required by the NPDES Phase II Permit.
- 13 Policy 10H-10: Develop and administer regulations and incentives such that
14 there is no net loss of ecological functions and values of
15 regulated wetlands and fish and wildlife habitats.
- 16 Policy 10H-11: Place a high priority on integrating impervious surface reduction
17 incentives into policies, regulations, and standards.
- 18 Policy 10H-12: Develop and implement comprehensive stormwater
19 management programs and strategies designed to address
20 runoff from all private and public developments and facilities
21 within regulated and sensitive watersheds.
- 22 1. Implement the Western Washington Phase II Municipal
23 Stormwater Permit as part of the National Pollutant
24 Discharge Elimination System (NPDES) Program. Incorporate
25 watershed considerations into the development of a
26 comprehensive stormwater management strategy for
27 designated areas.
- 28 2. Review Stormwater Special Districts Standards, Watershed
29 Protection Districts, and other related codes that address
30 runoff treatment from potentially polluting surfaces for their
31 applicability to other sensitive watersheds with the Technical
32 Advisory Committee and other appropriate agencies.
33 Coordinate efforts for ongoing monitoring and evaluation
34 within the sensitive watersheds and NPDES areas.
- 35 3. Amend subdivision, zoning, and other land use regulations
36 and design standards to encourage that land use activities
37 minimize the amount of impervious surface.
- 38 4. Identify and implement a long-term funding source to
39 provide for water resource protection services, including non-
40 point source identification and enforcement of applicable
41 county regulations.
- 42 5. Focus on the Lake Whatcom watershed as a high priority in
43 developing a stormwater management program. Develop a

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stormwater management plan that achieves a uniform level of protection throughout the Lake Whatcom watershed. Ensure coordination and communication with the public and affected jurisdictions, such as the Lake Whatcom Water and Sewer District, the Sudden Valley Community Association, and the City of Bellingham.

6. Ensure existing stormwater standards are adequately enforced within Stormwater Special Districts, Watershed Protection Districts, and the NPDES areas.

7. Prioritize stormwater polluting areas and develop retrofits for areas most likely to impact sensitive waters.

Water Conservation

Goal 10-I: Support water conservation, reclamation, reuse measures, and education as a means to ensure sufficient water supplies in the future.

Policy 10I-1: Support and assist water users in the development of cost-effective means of improving efficiency of water use.

Policy 10I-2: Support efforts to establish and protect sustainable water supplies to meet existing and future demands for water in the county.

Policy 10I-3: Develop and implement plans to comply with the Department of Ecology's instream flow and water management rules and water resources management programs.

Policy 10I-4: Coordinate local water and land management efforts, plans, and data to ensure adequate oversight of water quality and quantity issues.

Policy 10I-5: Quantify water use to promote conservation.

Policy 10I-6: Use water use data to encourage conservation and maintain availability of water for agriculture and instream flow.

Policy 10I-7: Encourage the Department of Ecology to provide flexibility in the application of the water relinquishment rule simultaneous with establishing a water bank/water exchange program in Whatcom County in cooperation with stakeholders.

Lake Whatcom Watershed

Goal 10-J: Prioritize the Lake Whatcom watershed as an area in which to minimize development, repair existing stormwater problems (specifically for phosphorus), and ensure forestry practices do not negatively impact water quality. Provide sufficient funding and support to be successful.

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- 1 Policy 10J-1: Work with property owners to find acceptable development
2 solutions at lower overall densities than the present zoning
3 allows.
- 4 Policy 10J-2: Develop and implement the fair and equitable funding
5 mechanisms called for in the 2008 Lake Whatcom
6 Comprehensive Stormwater Plan to support lake water quality
7 protections by 2018.
- 8 Policy 10J-3: Recognize that all users of Lake Whatcom water have an
9 interest in the resource and should share in the cost of its
10 protection.
- 11 Policy 10J-4: Work cooperatively with the City of Bellingham, the Lake
12 Whatcom Water and Sewer District, and applicable associations
13 and organizations to identify, review, and, as appropriate,
14 recommend changes to existing monitoring programs to better
15 improve lake water quality.
- 16 Policy 10J-5: Evaluate and pursue, as appropriate, the use of incentives to
17 encourage voluntary lot consolidation, transfer or purchase of
18 development rights, current use taxation, and participation in
19 open space conservation programs.
- 20 Policy 10J-6: Do not allow density bonuses within the Lake Whatcom
21 Watershed.
- 22 Policy 10J-7: Work cooperatively with the City of Bellingham and the Lake
23 Whatcom Water and Sewer District to develop and track
24 benchmarks to determine: the effectiveness of management
25 options; when goals have been achieved; and/or when
26 additional actions are necessary.
- 27 Policy 10J-8: Continue to develop and refine structural and non-structural
28 best management practices (BMPs), both voluntary and
29 required, to minimize development impacts within the Lake
30 Whatcom watershed.
- 31 Policy 10J-9: Work to keep publicly-owned forest lands within the Lake
32 Whatcom watershed in public ownership, and support managing
33 forestry on these lands in a manner that minimizes sediment
34 and phosphorus yields from streams, and is consistent with Best
35 Available Science (BAS) data, in order to protect and enhance
36 water quality.
- 37 Policy 10J-10: Encourage the location of public services, such as schools,
38 libraries, parks/open space, and post offices within Sudden
39 Valley in an attempt to reduce the vehicle miles traveled within
40 the watershed.
- 41 Policy 10J-11: Continue to work with Bellingham and Lake Whatcom Water and
42 Sewer District to protect and manage the Lake Whatcom
43 watershed in accordance with the 1998 jointly adopted interlocal

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agreement. Focus on continued implementation of the 5-Year Work Plans of the Lake Whatcom Management Program. In addition, work with the affected jurisdictions and secure funding for programs that protect and enhance water quality.

Policy 10J-12: Review and modify (as needed) the current development review process for projects in the Lake Whatcom Watershed to ensure coordination with other jurisdictions to streamline regulations that improve and protect water quality.

Policy 10J-13: The existence of sewer lines in the Rural and Rural Forestry comprehensive plan designations will not be used to justify rezoning property in the Lake Whatcom watershed to allow higher density land uses.

Policy 10J-14: Existing Urban Growth Areas shall not be ~~designated or~~ expanded nor new Urban Growth Areas designated within the Lake Whatcom Watershed, and rezones that allow greater residential densities will not be allowed.

Comment [P/C3]: P/C struck

Ecosystems

Introduction

Ecological systems, or ecosystems, refer to the natural systems that have developed within the geologic and geographic setting of Whatcom County. Whatcom County contains a significant number of distinct ecosystem types, with associated fish, wildlife, and plant species, as well as many other living organisms. This biodiversity has evolved and adapted according to the specific physical and climatic conditions of the county (Map 10-2, Map 10-3). Ecosystem goals and policies are intended to provide guidance to county government as it assists people to manage and protect these ecosystems. Additionally they ensure other benefits are maintained far into the future.

Background Summary

Whatcom County provides a wide variety of natural habitats that support and shelter a diverse array of fish and wildlife species. The county's wildlife is particularly varied and abundant when compared to many other areas of Washington State. There are a number of factors that have contributed to this: abundant water resources, rich soils, mild climate conditions, and a moderate degree of urbanization are among the most important. Among the habitats of importance to fish and wildlife are the following:

- wetlands, lakes, and streams;
- nearshore, intertidal, estuarine habitats, and marine habitats including, but not limited to, kelp and eelgrass beds;
- riparian areas and other travel corridors;
- snags and downed logs;
- forested habitats in a variety of successional stages;

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- caves, cliffs, rocky balds, and talus slopes;
- grasslands and cultivated fields; and,
- thickets and fence rows.

Aquatic habitats include rivers, streams, ponds, lakes, and their riparian borders. Together, these habitats are essential to Whatcom County's fish and wildlife. Twenty-six species of fish—including twelve economically important stocks of salmon and trout—inhabit fresh water in Whatcom County for all or part of their life cycles. Healthy flowing streams and rivers, as well as off-channel wetland habitats, are essential to the survival of the majority of these fish. Wetland ponds, especially beaver ponds, provide optimal habitats for rearing and over-wintering of young fish, particularly Coho salmon and cutthroat trout juveniles.

Most wildlife species regularly use aquatic and riparian habitats for breeding, feeding, shelter, and migratory activities. Of this large grouping, over half are dependent upon wetland habitats at some point in their life cycles, and would decline or disappear in the absence of wetlands. Wetlands also contain unique vegetative communities that harbor many species of rare and unusual plants.

Fish and Wildlife Populations and Habitat

Optimum habitat for Pacific Northwest salmon and other fish is one that resembles the riparian landscape of pre-settlement times: braided streams wandering freely through nearly continuous forest; trees overhanging and partly fallen into streams; stream beds with abundant logs, step waterfalls, pools, and cutbanks; and vegetated marine and estuarine communities. In most cases, it is not realistic to return to that state. However, measures can be taken to retain or regain those features that provide the minimum requirements of a viable fishery.

The best habitat for native wildlife includes native plants, which are more closely matched to local soils, climate, and wildlife. They provide the right kinds of food, shelter, and diversity needed by wildlife. Native plants frequently need less watering, spraying, pruning, fertilizing, or other maintenance than do exotic or imported plants. Loss of native vegetation through conversion to ornamental vegetation and non-native species can result in loss of wildlife habitat, increased competition to native wildlife from introduced species, such as starlings, and increased maintenance needs. Loss of native vegetation also can occur through invasions of non-native species, such as the spread of *Spartina*, which can drastically displace important native eelgrass and mudflat communities.

Salmon Recovery Program

The decline of salmonids throughout Washington and the Pacific Northwest over the past century is well established. Since 1991, numerous evolutionarily significant units (ESUs) of Pacific salmonids have been listed as endangered or threatened under the Endangered Species Act (ESA), including those of chinook, coho, chum, sockeye, and steelhead. Decline in wild salmonid abundances have been attributed to widespread loss and degradation of habitat, due to hydropower, residential and urban development, agriculture, forestry, and fishing and hatchery production.

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In the Nooksack basin, abundances of several salmonid stocks have diminished substantially from historical levels. The declines in local salmonid stocks, especially Chinook salmon, have had profound economic, cultural, and social impacts on the greater WRIA 1 community. Direct impacts include reduced jobs and income for commercial fisherman, severe curtailment of tribal and subsistence catch, and loss of tourism associated with recreational fishing. In addition, ESA listings impose constraints on the activities of local and tribal governments, businesses, the agricultural community, and citizens, who must seek to avoid or minimize take of listed species. Nonetheless, salmon remain an integral part of the natural and social landscape of Whatcom County and the Nooksack River Watershed. Recent watershed recovery planning and restoration efforts by federal, state, local, and tribal governments, non-profit organizations, businesses, and private citizens demonstrate a commitment to salmon recovery in WRIA 1.

The WRIA 1 Salmon Recovery Program is a multi-government planning effort with a WRIA-wide scope to address salmon recovery and protection of ESA and non-ESA listed salmonids.

WRIA 1 Salmon Recovery Strategy

The ultimate goal for salmon recovery in WRIA 1 is to recover self-sustaining salmonid runs to harvestable levels through the restoration of healthy rivers and natural stream, river, estuarine, and nearshore marine processes; careful use of hatcheries; and responsible harvest, with the active participation and support of local landowners, businesses, and the larger community. The purpose of the *WRIA 1 Salmonid Recovery Plan* is to identify the actions necessary to recover WRIA 1 salmonid populations, especially listed species, and to outline the framework for implementation of recommended actions that have been agreed to by local, state, tribal, and federal governments and stakeholders in WRIA 1. In the near term, the objectives are to:

1. Focus and prioritize salmon recovery efforts to maximize benefit to the two Nooksack early chinook populations;
2. Address late-timed Chinook through adaptive management, focusing in the near-term on identifying hatchery versus naturally-produced population components;
3. Facilitate recovery of WRIA 1 bull trout and steelhead by implementing actions with mutual benefit to early chinook, bull trout, and steelhead, by removing fish passage barriers in presumed bull trout and steelhead spawning and rearing habitats in the upper Nooksack River watershed; and
4. Address other salmonid populations by (a) protecting and restoring WRIA 1 salmonid habitats and habitat-forming processes through regulatory and incentive based programs; and (b) encouraging and supporting voluntary actions that benefit other WRIA 1 salmonid populations without diverting attention from early chinook recovery.

Focusing efforts on early chinook is consistent with regional salmon recovery, current abundance and productivity for the two populations is very low and

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recovery of both populations is critical to delisting and recovery of the Puget Sound Evolutionarily Significant Unit (ESU) for Chinook salmon.

Salmon Recovery Board (SRB)

WRIA 1 Salmon Recovery Board membership includes the County Executive, Bellingham Mayor, Mayors of the Small Cities of Whatcom County, the regional director of the Washington Department of Fish and Wildlife, and policy representatives from Lummi Nation and Nooksack Indian Tribe.

The WRIA 1 Salmonid Recovery Plan (2005), a chapter of the Puget Sound Salmon Recovery Plan, guides restoration in the Nooksack River and adjacent watersheds. This plan was developed in partnership with Nooksack Tribe, Lummi Nation, Washington Department of Fish and Wildlife, Bellingham, Whatcom County Government, and the small cities of Whatcom County. Chinook salmon populations (listed as threatened with extinction under the Federal Endangered Species Act) are prioritized, yet the plan also provides the template for recovery of threatened steelhead and bull trout and the other salmon and trout populations native to Whatcom County.

The salmon plan was developed in parallel with the WRIA 1 Watershed Management Plan. Salmon habitat is intricately linked to watershed management; salmon recovery will be most successful when fish habitat objectives are carefully coordinated with watershed management objectives. Integrating salmon recovery with flood hazard management and restoring fish passage under County roads are two primary areas of focus.

Marine Resources Management

Marine habitats include all saltwater bodies and their shorelines, kelp and macro algae beds, eelgrass meadows, salt marshes, beaches, and mudflats. These habitats play a vital role in the health of the local environment, as well as of the broader Puget Sound region. They provide spawning, rearing, and feeding grounds for a wide variety of marine life, as well as refuge for juvenile and adult fish, birds, and shellfish. The vegetation on back-shore marshes and within estuaries buffers adjacent upland areas by absorbing wave energy and slowing erosion.

Symptoms of ecosystem stress include: declining stocks of salmon, bottomfish, and forage fish; closures of recreational and commercial shellfish beds; degradation and losses of eelgrass beds, kelp forests, and other marine habitats; and dwindling populations of seabirds and marine mammals.

The Northwest Straits Marine Conservation Initiative was authorized by Congress in 1998. The Initiative established the Northwest Straits Commission and Marine Resources Committees (MRCs) in seven western Washington counties, including Whatcom County. The MRCs' main purpose is to guide local communities, using up-to-date information and scientific expertise, to achieve the important goals of resource conservation and habitat protection within the Northwest Straits. The Whatcom County MRC acts as an advisory committee to the Whatcom County Council.

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Shellfish Recovery

Many of the marine waterbodies in Whatcom County support natural and cultured bivalve shellfish, including oysters and many species of clams. The warm, nutrient-rich tide flats in and around Lummi, Portage, and Birch Bays; Drayton Harbor; and Eliza and Lummi Islands represent unique water resources in this regard. Commercial shellfish growers, recreational clam and oyster harvesters, and Native Americans have used this resource for many years. It is an important part of our community's heritage.

Our ability to grow and harvest shellfish that is safe for human consumption is directly linked to surface water quality and the influence it has on marine waters. The primary measure of water quality for shellfish harvesting is bacterial contamination. There are many potential sources of fecal bacteria, such as municipal sewage treatment plants, on-site sewage systems, boat waste, farm animals, pets, and wildlife. Since 1995, valuable shellfish beds in Portage Bay and Drayton Harbor have been downgraded (harvest prohibited) due to non-point pollution impacting recreational, tribal, and commercial harvesting. In 2014, Portage Bay was identified as a threatened Shellfish Growing Area by the Washington Department of Health. (Washington Department of Health, 2014)

Shellfish Protection Advisory Boards

Whatcom County has three Shellfish Protection District Advisory Committees, one for each of the Shellfish Protection Districts: Birch Bay, Drayton Harbor, and Portage Bay. Each advises the County Council on proposed actions and operations relating to the restoration of water quality in their respective watersheds.

Shellfish Recovery Plans

Shellfish Recovery Plans have been created for each of three districts. The plans outline the primary sources of bacteria and actions to improve water quality:

- Drayton Harbor Shellfish Recovery Plan (2007)
- Portage Bay Shellfish Recovery Plan (2014), Portage Bay Initial Closure Response Strategy (1998)
- Birch Bay Initial Closure Response Strategy (2009)

Pertinent Documents

- Whatcom Marine Resources Committee 2011 - 2015 Strategic Plan (2010)

This document outlines the MRC's mission, vision, values, goals, objectives, and strategies for achieving them.

Shoreline Management Program

~~The State Legislature passed the Washington State Shoreline Management Act (SMA) in June 1971. The SMA was overwhelmingly passed by public initiative in 1972. Under the SMA, each county and city was required to prepare a shoreline "master program" in accordance with the shoreline guidelines issued by the State Department of Ecology in 1972.~~

~~The Whatcom County Shoreline Management Program (SMP), WCC Title 23, is the document that implements the goals and policies of the SMA at the local level. It was adopted in 1976 in accordance with RCW 90.58. The goals and policies of the~~

Comment [CES4]: Moved to Ch. 11.

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~~Whatcom County Shoreline Management Program also constitute the shoreline component of the Whatcom County Comprehensive Plan.~~

~~Under the provisions of the SMA, all development along shorelines of the state is required to comply with the provisions of local shoreline master programs. The Whatcom County Shoreline Management Program works with other chapters of the Whatcom County Code to protect and preserve saltwater and freshwater shorelines throughout the county by managing natural resources and directing development and land use suitable for the shoreline environment.~~

~~The Whatcom County Shoreline Management Program jurisdiction includes:-~~

- ~~• More than 130 miles of marine shoreline;~~
- ~~• More than 60 miles of lake shoreline;~~
- ~~• More than 220 miles of stream channels; and,~~
- ~~• All wetlands and floodways associated with the above shorelines, together with all upland areas within 200 feet of the Ordinary High Water Mark (OHWM).~~

~~Whatcom County and the Washington State Department of Ecology (DOE) share joint authority and responsibility for the Whatcom County SMP. Whatcom County Planning and Development Services is the primary agency responsible for implementation of the Whatcom County Shoreline Management Program.~~

Issues, Goals, and Policies

General – Ecosystems

Development and urbanization of the land base have and may continue to result in the degradation and reduction of ecosystem functions. Wetlands and estuaries continue to be lost incrementally. Streams and their adjacent riparian habitat are affected by land clearing, ditching, erosion, and road building. Lakeshore development degrades the foreshore environment for waterfowl and other species, as well as negatively affecting water quality. It is estimated that Washington has also lost approximately one-third of its historic eelgrass beds from a variety of causes, including dredging, shading, and filling. Large-diameter snags and downed logs, an essential feature for dozens of wildlife species, are lost during clearing or intensive forest management. Forested habitats are lost to a number of development processes including urbanization, agriculture, increased rural/suburban housing density, and timber harvesting. The delicate environment of cliffs and caves may be affected by housing development, mining, and other activities. Conversely, grasslands, thickets, fields, and fence rows are habitats largely provided and enhanced by human activities, and are thus fairly abundant and stable within the developing county. The existence of farms, in particular, has contributed to an abundance of these more open, pastoral habitats.

Many stream systems in Whatcom County have been altered by agriculture, forestry, development, and flood control practices, contributing to low stream flows, fisheries loss, water pollution, sedimentation and other problems. These impacts can directly affect the fisheries resources by depositing silt and debris into spawning beds, by removing trees that shade and cool the water, bank armoring,

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interfering with the recruitment and establishment of large woody debris (LWD), by obstructing fish passage with culverts and roads, by altering natural channels through filling, bank hardening, and channelizing. In addition, the physical processes that create functional habitats for fish life stages are altered by increasing flows through stormwater runoff or consuming water volume for other out-of-stream uses.

Finally, a healthy and functioning ecosystem, including forests, wetlands, fish, wildlife, and native plants they harbor, is an identified resource. A healthy ecosystem supports diverse and abundant wildlife, fish, and plant populations, and is necessary. The gathering of fish, game, and other natural resources forms a central aspect of many cultures in Whatcom County. The mere presence of these natural resources constitutes a community amenity that is a substantial part of our local economic base.

Goal 10K: Protect and enhance ecosystems, which provide economic, ecological, aesthetic, and cultural benefit.

Policy 10K-1: Define and identify species, habitats, and habitat features important to a balanced and sustainable web of life, biodiversity, and especially important to fish, native plants, and wildlife. Create, and regularly update an Ecosystem Report.

Policy 10K-2: Develop and adopt programs that protect habitats essential to the conservation of species that have been identified as endangered, threatened, or sensitive by the state or federal government as well as habitats identified as necessary in the Ecosystem Report. These programs should maintain and encourage restoration of habitat conditions for listed species of concern, as well as habitats identified as having significant biodiversity, connectivity, and other important features and functions.

Policy 10K-3: Develop incentives for protection of environmentally fragile areas or critical plant and wildlife habitats as well as habitats that provide connectivity (corridors).

Policy 10K-4: Where feasible, incorporate fish and wildlife habitats into public capital improvement projects.

Policy 10K-5: Provide measures to mitigate negative water quality and quantity impacts from both public and private alterations of natural drainage systems.

Policy 10K-6: Consider sensitive fish, shellfish, and wildlife species and their habitats when establishing zoning densities and patterns.

Policy 10K-7: Promote voluntary fish and wildlife habitat enhancement projects through educational and incentive programs, such as purchase of development rights or habitat conservation easements. These projects, which can be done by individuals, organizations, and businesses, will buffer and expand fish, plant, and wildlife habitat.

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- 1 Policy 10K-8: Give careful consideration to the siting of industrial, commercial,
2 residential, and other land use designations when located near
3 important marine, terrestrial, or other critical habitats.
- 4 Policy 10K-9: Protect, retain, and enhance the beneficial uses and functions of
5 streams and rivers. Define and identify the beneficial uses and
6 functions of streams and rivers, including wildlife and fisheries
7 habitat, water quality, open space, aesthetics, and recreation.
- 8 Policy 10K-10: Protect and enhance ecosystem functions when flood hazard
9 management measures are used.
- 10 Policy 10K-11: Regulate the operation of river gravel extraction activities in
11 such a manner so as to provide long-term protection of fish and
12 wildlife habitat and water quality.
- 13 Policy 10K-12: Ensure design and development of residential and industrial
14 development minimizes disturbance to rivers, streams, and
15 functioning riparian areas.
- 16 Policy 10K-13: Evaluate the full value of the fishery; including its cultural and
17 economic value; in land use decisions that may impact that
18 fishery. Unavoidable impacts to an individual habitat or fishery
19 shall be mitigated.
- 20 Policy 10K-14: Continue to consider the value of wildlife populations for which
21 habitat conservation areas have been identified in PDS's wildlife
22 habitat mapping, their associated habitats, and connectivity in
23 land use planning that may impact them. This is not intended to
24 require landowners to pay for any additional studies.
- 25 Policy 10K-15: Mitigation to Habitat Conservation Areas should be tracked and
26 monitored to ensure no net loss to natural area.
- 27 Policy 10K-16: Monitor Habitat Conservation Areas to obtain a baseline of
28 current conditions and to ensure no net loss and avoidance of
29 cumulative impacts.
- 30 **Fish and Wildlife Populations and Habitat**
- 31 **Goal 10L: Protect and enhance ecosystems that support native fish**
32 **and wildlife populations and habitat.**
- 33 Policy 10L-1: Strongly discourage any activity that might cause significant
34 degradation of the fishery resource or habitat.
- 35 Policy 10L-2: Support the protection and enhancement of significant fish
36 spawning and rearing habitat, food resources, refugia (shelter),
37 and travel passages.
- 38 Policy 10L-3: Establish non-regulatory mechanisms and incentives for
39 development that accommodates the habitat needs of fish and
40 wildlife and encourages good stewardship practices.

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- 1 Policy 10L-4: Support protection and enhancement of fish and wildlife habitat
2 through site design in new development.
- 3 Policy 10L-5: Native vegetation and soils on streambanks and shorelines
4 should be disturbed as little as possible. In situations where re-
5 vegetation is necessary to restore streambank or shoreline
6 stability and provide shading, site-specific native plants should
7 be used. Retention of vegetated riparian areas on all lake and
8 marine shorelines shall also be encouraged.
- 9 Policy 10L-6: Discourage shoreline armoring. Instead, encourage natural or
10 bio-engineering solutions such as planting native vegetation,
11 engineered log jams/LWD, and beach nourishment along
12 eroding banks to address stream and shoreline bank erosion
13 problems. Riparian buffers should be replanted with suitable
14 native vegetation as a part of all bank stabilization projects.
- 15 Policy 10L-7: Encourage native vegetation and soil retention and plantings
16 that provide or maintain the beneficial uses and functions of
17 streams, rivers, lakes, and marine shorelines.
- 18 Policy 10L-8: Maintain and encourage restoration of habitat functions for
19 threatened and endangered fish species.
- 20 Policy 10L-9: Use Best Available Science to inform the creation of regulations
21 to mitigate adverse impacts of development adjacent to rivers,
22 streams, and marine shorelines.
- 23 Policy 10L-10: Encourage landowners to voluntarily protect surface water
24 quality with filter strips or other appropriate water cleansing
25 mechanisms installed between lawns, landscaping, livestock
26 pens, or agricultural fields and waterbodies.
- 27 Policy 10L-11: Formulate and implement a comprehensive, landscape-based,
28 environmental management program to protect fish and wildlife.
29 The program should include the following:
- 30 1. Formulate an administrative approach to the review of
31 development and planning proposals that consider natural
32 system policies;
- 33 2. Investigate and develop programs for acquisition and
34 restoration of important fish and wildlife habitat areas;
- 35 3. Develop and enter into cooperative agreements with State
36 and Federal agencies and neighboring jurisdictions to identify
37 and protect ecosystems;
- 38 4. Identify and map important habitat corridors and
39 connectivity throughout the county; and,
- 40 5. Support the development of educational materials which list,
41 describe, and characterize the appropriate use of native
42 vegetation to enhance ecosystem functions in Whatcom
43 County.

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- 1 Policy 10L-12: Consider establishing formal meander limits for the Nooksack
2 River, precluding additional development within this zone, and
3 promote the River and Flood property acquisition program
4 within these areas.
- 5 Policy 10L-13: Diligently work to prevent and/or reduce the establishment
6 and/or spread of invasive species.
- 7 Policy 10L-14: Actively participate in and support WRIA 1 Salmon Recovery
8 efforts to return self-sustaining salmonid runs to harvestable
9 levels through: the restoration of healthy rivers, marine
10 shorelines, and natural processes; the careful use of hatcheries;
11 and responsible harvest.
- 12 Policy 10L-15: Participate in protection and improvement of biodiversity.
- 13 Policy 10L-16: Consider establishing important habitat areas as sending
14 areas after creating a voluntary, workable transfer of
15 development rights (TDR) program.
- 16 Policy 10L-17: Mitigation of wetlands should be reviewed and tracked over time
17 to ensure no net loss of wetland function.
- 18 Policy 10L-18: A baseline of wetland identification and function should be made
19 to track and prevent net loss and avoid cumulative impacts.
- 20 Policy 10L-19: The County will support the work of the Fisheries Co-managers
21 (Lummi Nation, Nooksack Tribe, and the State Department of
22 Fish and Wildlife) and stakeholders to establish a sustainable
23 salmon harvest goal for the Nooksack Basin.

Wetlands

25 Wetlands are crucial environmental features in Whatcom County. Wetlands provide
26 invaluable functions in aquifer recharge, groundwater storage, floodwater
27 detention, pollutant removal and purification of water supplies, as well as provision
28 of fish and wildlife habitat. Loss of wetlands has been due to many factors,
29 including urbanization, agricultural development, and drainage projects.

30 A plethora of complex and often confusing laws govern the definition, delineation,
31 and protection of wetlands. These laws originate at national, state, and county
32 levels. Land managers and private citizens often experience difficulty in
33 interpreting, synthesizing, and applying wetland regulations. In general, however,
34 state regulations must comply with federal standards and local regulations must
35 comply with both federal and state standards.

Goal 10M: Conserve and enhance regulated wetlands.

- 36 Policy 10M-1: Recognize natural wetlands such as swamps, bogs, saltwater
37 marshes, and ponds for their value in cleaning water, reducing
38 flood damage, providing valuable habitat for plants, fish and
39 wildlife, and as sites for groundwater recharge.
40

Comment [P/C5]: This proposed amendment is not part of the SMP Update. Rather, it is a policy the Council expressed in interest in adding in support of the fisheries co-manager's Sustainable Salmon Harvest Goal. Adding such a policy was placed on the docket by Council in 2018 (#PLN2018-00010).

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- 1 Policy 10M-2: Develop and adopt criteria to identify and evaluate wetland
2 functions that meet the Best Available Science standard and
3 that are consistent with state and federal guidelines.
- 4 Policy 10M-3: Biological functions of wetlands are complex and interwoven.
5 Evaluate the full range of potential and immediate economic
6 impacts in land use decisions relating to wetlands, including
7 fisheries, wildlife, recreation, farmlands, sustainable resources,
8 air and water quality, flood hazard management, real estate,
9 cultural attributes, and other uses.
- 10 Policy 10M-4: Encourage land development to avoid wetland impacts. Impacts
11 to regulated wetlands should be contingent upon full mitigation
12 measures that equitably compensate for wetlands impacts, on a
13 case-by-case basis. Approved mitigation measures shall include
14 resources for long-term monitoring and adaptive management
15 of mitigation outcomes to assure effectiveness. Strongly
16 discourage alteration of land that results in the degradation of
17 type 1 and 2 wetlands.
- 18 Policy 10M-5: Property rights and public services are essential components of
19 our political and economic system. Where such rights and public
20 services are significantly compromised by the goal of wetland
21 preservation, adverse wetland impacts may be permitted
22 through standardized mitigation. This may include avoidance,
23 impact minimization, restoration, enhancement, creation, or off-
24 site compensation for loss of wetland functions in accordance
25 with mitigation sequencing.
- 26 Policy 10M-6: Recognize beneficial wetland uses, functions, and values.
27 Support protection of fish and wildlife habitat, water quality,
28 plant diversity, flood attenuation and low-flow contribution, and
29 water storage through planning, acquisition, incentive programs,
30 and mitigation.
- 31 Policy 10M-7: Development applications should be assessed on a case-by-case
32 basis so that marginal wetlands are not preserved at the
33 expense of upland areas with higher habitat value.
- 34 **Marine Habitat**
- 35 **Goal 10N: Protect and enhance marine ecosystems and resources in**
36 **Whatcom County.**
- 37 Policy 10N-1: Support the Whatcom County Marine Resources Committee in
38 its pursuit of the Northwest Straits Commission benchmarks as
39 follows:
- 40 ▪ Broad county participation in MRCs;
 - 41 ▪ A net gain in high-value habitat and ecosystem functions;
 - 42 ▪ A net reduction in shellfish bed closures;

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- Measurable increases in factors supporting bottomfish recovery;
- Population increases in other key indicator species;
- Coordination of scientific data;
- Successful public education and outreach efforts; and,
- The establishment of a regional system of Marine Protected Areas (MPA's).

Policy 10N-2: Promote naturalized shoreline buffers and restoration of riparian vegetation.

Goal 10P: Protect and enhance shellfish habitat in commercial and recreational areas to ensure a productive resource base for long-term use.

Policy 10P-1: Identify and designate marine shellfish habitat for commercial and recreational uses.

Policy 10P-2: Restore degraded waters within the drainage basins of shellfish growing areas to a level that allows/supports shellfish harvesting by work with the Department of Ecology, Tribes, Department of Health, Department of Fish and Wildlife, and affected property owners to improve water quality.

Policy 10P-3: Protect shellfish resources by means of pollution prevention and enforcement when necessary. This should include surface and groundwater monitoring for early detection of pollution to minimize the damage and cost of resource restoration.

Policy 10P-4: Improve knowledge of the importance of protecting, preserving, and improving the quality of shellfish habitat within the County. Seek out valuable partnerships that will raise awareness, provide education, and enhance shellfish habitat.

Policy 10P-5: Develop Low Impact Development standards in shellfish habitat areas.

Policy 10P-6: Identify and encourage the use of stormwater treatment systems and Best Management Practices to reduce fecal coliform bacteria levels in stormwater discharging directly into shellfish habitat areas.

Policy 10P-7: Solicit input from the Shellfish Protection District advisory committees and appropriate state, federal, and tribal agencies when considering updates to the Comprehensive Plan that relate to shellfish protection.

Policy 10P-8: Identify and restore functions, selected through best available landscape-based science, of key wetland areas.

Policy 10P-9: Modify county roadside ditch maintenance procedures to protect water quality.

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- 1 Policy 10P-10: Continue to partner with jurisdictions in British Columbia to
2 minimize impacts on water quality, including what affects
3 shellfish habitat.
- 4 Policy 10P-11: Work within the structure of County programs such as the WRIA
5 Watershed Management Planning process to achieve
6 improvements in land use Best Management Practices that will
7 positively affect change in marine water quality.
- 8 Policy 10P-12: Continue to develop programs that identify potential pollution
9 sources and ensure timely and science-based approaches are
10 used in response to problems as they arise.
- 11 Policy 10P-13: Develop educational tools and opportunities to raise public
12 awareness of marine issues and to inform them of how they can
13 have a positive impact by helping preserve these marine
14 resources.
- 15 Policy 10P-14: Identify areas (such as wetlands and the nearshore
16 environment) that are important to shellfish habitat
17 preservation. Also identify river and stream processes that
18 adversely impact shellfish habitat. Use this information when
19 making land use management and preservation decisions.
- 20 Policy 10P-15: Create a tracking mechanism to document progress made
21 toward improving downgraded shellfish areas. This information
22 will be useful not only in supporting an upgrade when water
23 quality shows improvement, but also in preventing degradation
24 in currently approved shellfish areas.
- 25 Policy 10P-16: Work with the County Shellfish Advisory Committees, Marine
26 Resources Committee, Salmon Recovery Fund Board, WRIA
27 Watershed Management Board, and other local, state, federal,
28 and tribal agencies to address issues associated with shellfish,
29 shellfish area closures, and shellfish habitat.
- 30 Policy 10P-17: Consider establishing the Drayton Harbor Watershed as a
31 sending area when considering a transfer of development rights
32 (TDR) program in.
- 33 Policy 10P-18 Support the Department of Health's On-Site Sewage System
34 (OSS) Program as a means to lower degradation of our
35 waterways.

Other Marine and Marine Dependent Organisms and Systems

36 Our Marine system supports not only local, critical, and global fisheries resources,
37 but also a myriad of interdependent organisms, the importance of which we lack
38 the capacity to fully grasp. The Marine ecosystem is a complex web of life that is
39 increasingly affected by anthropogenic impacts. Toxics, hormones, heavy metals,
40 and other harmful substances flushed into nearshore and marine environments with
41 stormwater have been shown to have deleterious cumulative impacts on a range of
42 aquatic and marine dependent organisms. Whatcom County will take steps to halt
43

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- 1 the practice of treating its streams and rivers as a storm sewer and the marine
2 system as a water treatment facility.
- 3 Policy 10P-19: Promote Best Management Practices, land use, and stormwater
4 policies that result in a minimal release of harmful chemicals
5 and metallic substances into surface water and the marine
6 environment.

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Chapter Eleven Shorelines

Comment [CES1]: The P/C reviewed this version at their 11.12/20 mtg but didn't quite finish with it. Does include some of their changes.

Moved to tentatively approve for public hearing at their 12/10/20 mtg. Passed 8-0-1

Comment [CES2]: Much of text was moved from either C/P Ch. 10 or Title 23, and is not shown as being new. Proposed amendments to the existing text are shown as strikeout/underline.

Introduction

The State Legislature passed the Washington State Shoreline Management Act (SMA) in June 1971. The SMA was overwhelmingly passed by public initiative in 1972. Under the SMA, each county and city was required to prepare a shoreline "master program" in accordance with the shoreline guidelines issued by the State Department of Ecology in 1972.

The Whatcom County Shoreline Management Program (SMP), ~~WCC Title 23~~, is the set of policies and regulations document that implements the goals and policies of the SMA at the local level. It was first adopted in 1976 in accordance with RCW 90.58. The goals and policies of the Whatcom County ~~Shoreline Management Program SMP~~ also constitute the shoreline component of the Whatcom County Comprehensive Plan.

The Whatcom County Shoreline Management Program jurisdiction includes:

- More than 130 miles of marine shoreline;
- More than 60 miles of lake shoreline;
- More than 220 miles of stream channels; and,
- All wetlands and floodways associated with the above shorelines, together with all upland areas within 200-feet of the Ordinary High Water Mark (OHWM).

Whatcom County and the Washington State Department of Ecology (DOE) share joint authority and responsibility for the Whatcom County SMP. Whatcom County Planning and Development Services is the primary agency responsible for its implementation of the ~~Whatcom County Shoreline Management Program~~.

Chapter Organization

This chapter is composed of an introduction and five sections organized by topic heading. The first section, entitled "Overall SMP Goals and Objectives," addresses general shoreline goals and objectives. The next provides the purposes, designation criteria, and policies for the County's various shoreline area designations. The third section contains the County's policies for Shorelines of Statewide Significance. The fourth section provides the general policies that apply to all area designations. And the fifth section provides the policies specific to the type of use proposed. Together with the regulations of WCC Title 23, the sections of this chapter provide the direction necessary to ensure and promote long-term sustainability of the shorelines in Whatcom County.

Purpose

This chapter together with WCC Title 23 comprises Whatcom County's Shoreline Management Program. This chapter contains the SMP's goals, objectives, and policies, while its regulations are found in WCC Title 23. All development proposed

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within jurisdictional shorelines must be consistent with both the policies of this chapter and the regulations of WCC Title 23.

The Shoreline Management Act (SMA) was developed and adopted to protect “the most valuable and fragile of [the state’s] natural resources from the “inherent harm in uncoordinated and piecemeal development of the state’s shorelines” (quotes from RCW 90.58.020). The SMA in Chapter 90.58 RCW contains three distinct but related priorities:

1. The promotion of shoreline uses that are both water-oriented and appropriate for the broader environmental context. Developments such as single family residences, recreational areas, and water-dependent businesses such as marinas are considered priority uses provided they are constructed in a manner “consistent with control of pollution and prevention of damage to the environment” (quote from RCW 90.58.020).
2. The SMA requires local governments to take an active role in protecting the shoreline ecology: the water, the land, the vegetation and the wildlife. The state guidelines are explicit: “Local master programs shall include regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological functions of the shoreline.” (WAC 173-26-186(8)(b)(i).)
3. The SMA also promotes public access to the shoreline by requiring protection of existing public access features and requiring certain types of new development to include public access.

The SMP regulations (WCC Title 23) apply to individual projects, and impacts of shoreline development are evaluated on a project-by-project basis. However, the SMP goals and policies, shoreline designations, regulations, and the restoration plan are comprehensively structured to achieve no net loss of shoreline ecological functions as a whole in Whatcom County.

GMA Goals and Countywide Planning Policies

First adopted in 1990, The Growth Management Act (GMA) is a series of state statutes that requires fast-growing cities and counties to develop a comprehensive plan to manage their population growth. It is primarily codified under Chapter 36.70A RCW, although it has been amended and added to in several other parts of the RCW. Under RCW 36.70A.020, the GMA established a series of 13 goals that should act as the basis of all comprehensive plans. In 2003, the legislature added the goals and policies of the Shoreline Management Act as the fourteenth GMA goal (RCW 36.70A.480). The shoreline goals may be found at RCW 90.58.020.

As of this time, there are no Countywide Planning Policies that address development in the shoreline.

~~GMA-SMA~~ Requirements

Under the provisions of the SMA, all development along shorelines of the state is required to comply with the provisions of local shoreline master programs. The Whatcom County ~~Shoreline Management Program~~SMP works with other chapters of

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the Whatcom County Code to protect and preserve saltwater and freshwater shorelines throughout the county by managing natural resources and directing development and land use suitable for the shoreline environment.

~~23.10.030~~ Governing Principles

The following principles, along with the policy statements of RCW 90.58.020 and the principles of Chapter 173-26 WAC, establish basic concepts that underpin the goals, policies, and regulations of the ~~SMP~~ Shoreline Management Plan (SMP) ~~this program~~:

- A. Any inconsistencies between the ~~SMP this program~~ and the Shoreline Management Act (SMA Act) must be resolved in accordance with the SMA Act.
- B. The policies of the ~~SMP this program~~ may be achieved by diverse means, one of which is regulation. Other means, authorized by the SMA Act, include, but are not limited to: acquisition of lands and/or easements by purchase or gift, incentive programs, and implementation of capital facility and/or nonstructural programs.
- C. Protecting the shoreline environment is an essential statewide policy goal, consistent with other policy goals. Permitted and/or exempt development, actions taken prior to the SMA Act's adoption, and/or unregulated activities can impair shoreline ecological processes and functions. The SMP this program protects shoreline ecology from such impairments in the following ways:
 1. By using a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by shorelines.
 2. By including policies and regulations that require mitigation of significant adverse impacts in a manner that ensures no net loss of shoreline ecological functions. The required mitigation shall include avoidance, minimization, and compensation of impacts in accordance with the policies and regulations for mitigation sequencing in WCC 23-~~90.030~~ and the Whatcom County Critical Areas Ordinance (CAO, Chapter 16.16 WCC). The SMP this program and any future amendment thereto shall ensure no net loss of shoreline ecological functions and processes on a programmatic basis in accordance with the baseline functions present as of the date of adoption of the comprehensive SMP update this program, February 27, 2007.
 3. By including policies and regulations to address cumulative impacts, including ensuring that the cumulative effect of exempt development will not cause a net loss of shoreline ecological functions, and by fairly allocating the burden of addressing such impacts among development opportunities.
 4. By including regulations and regulatory incentives designed to protect shoreline ecological functions, and restore impaired ecological functions where such opportunities have been identified, consistent with the

Comment [CES3]: These principles have been moved from 23.10.030.

Comment [MD4]: Deleting "significant," as there is no such threshold under SMA.

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Shoreline Management Program Restoration Plan developed by Whatcom County.

D. Regulation of private property to implement ~~SMP~~program goals such as public access and protection of ecological functions and processes must be consistent with all relevant constitutional and other legal limitations. These include, but are not limited to, civil rights guaranteed by the U.S. and state Constitutions, ~~recent~~pertinent federal and state case law, and state statutes, such as RCW 34.05.328 and 43.21C.060 and Chapter 82.02 RCW.

E. Regulatory or administrative actions ~~contained herein~~ must be implemented consistent with the public trust doctrine and other applicable legal principles as appropriate and must not unconstitutionally infringe on private property rights or result in an unconstitutional taking of private property.

F. The regulatory provisions of ~~the SMP~~this program are limited to jurisdictional shorelines~~shorelines of the state~~, whereas the planning functions of ~~the SMP~~this program may extend beyond the designated shoreline boundaries.

G. The policies and regulations established by the ~~SMP~~program must be integrated and coordinated with those policies and rules of the ~~Whatcom County Comprehensive Plan~~ and development regulations adopted under the ~~Growth Management Act (GMA)~~ and RCW 34.05.328.

H. Consistent with the policy and use preferences of RCW 90.58.020, Whatcom County should balance the various policy goals of ~~the SMP~~this program giving consideration to other relevant local, state, and federal regulatory and non-regulatory programs.

Chapter 23.20 – Overall SMPShoreline Management Program Goals and Objectives

23.20.005 Generally.

This ~~section~~chapter describes ~~contains~~ overall ~~program~~SMP goals and objectives. They provide the ~~comprehensive~~ foundation and framework upon which the shoreline area designations, policies, regulations, and administrative procedures are based.

The general policies and regulations ~~(in a later section of this chapter and in Chapter Title 23.90 WCC, respectively)~~ and the specific use policies and regulations ~~(in a later section of this chapter and in WCC Chapter Title 23.100 WCC, respectively)~~ are the means by which these goals and objectives are implemented.

Comment [MD5]: Moved all policy content from Chapter 23.20. This section reviewed and coordinated with Title 23 updates.

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~~23.20.010~~ Adoption:

In addition to the policy adopted in WCC 23.10.020(C), the following goals and objectives relating to the program elements specified in RCW 90.58.100(2) are hereby adopted. They provide the comprehensive foundation and framework upon which the shoreline area designations, policies, regulations, and administrative procedures are based.

Comment [MD6]: Moved up.

~~23.20.020~~ Economic Development:

The economic development element provides for the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce, and other developments that are particularly dependent upon a shoreline location and/or use of the shorelines of the state.

Goal 11A: ~~Goal. To create and maintain an economic environment that can coexist harmoniously with the natural and human environment.~~

B. Objectives:

11A-1: Encourage economic development that has minimal adverse effects and mitigates unavoidable impacts upon shoreline ecological functions and processes and the built environment.

11A-2: Encourage shoreline development that has a positive effect upon economic and social activities of value to the region.

11A-3: Encourage new water-dependent, water-related, and water-enjoyment economic development in priority order.

11A-4: Encourage economic development that is consistent with the adopted Comprehensive Economic Development Strategy (CEDS) for Whatcom County.

11A-5: Implement economic development policies contained in other chapters of the ~~Whatcom County Comprehensive Plan~~ in shoreline areas consistent with this chapter, WCC Title 23 program and the SMA Act.

11A-6: Encourage new economic development to locate in areas that are already developed with similar uses.

11A-7: Discourage expansion of existing development that is incompatible with the Comprehensive Plan ~~this program~~, WCC Title 23, or the character of the local area, ~~or the Whatcom County Comprehensive Plan~~.

~~23.20.030~~ Public Access:

The public access element provides for public access to publicly owned or privately owned shoreline areas where the public is granted a right of use or access.

Goal 11B: ~~Goal. To increase the general public's ability of the general public to reach, touch, and enjoy the water's~~

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edge, to travel on the waters of the state, and/or to view the water and the shoreline from adjacent locations; provided, that private rights, ~~the~~ public safety, and shoreline ecological functions and processes are protected consistent with the U.S. and state Constitutions, state case law, and state statutes.

B. Objectives:-

11B-1: Locate, design, manage, and maintain public access in a manner that protects shoreline ecological functions and processes and the public health and safety.

11B-2: Design and manage public access in a manner that ensures compatibility with water-dependent uses.

11B-3: Where appropriate, acquire access to publicly owned tidelands and shorelands. Encourage cooperation among the County, landowners, developers, and other agencies and organizations to enhance and increase public access to shorelines as specific opportunities arise.

11B-4: Provide and protect visual access to shorelines and tidelands.

11B-5: Require physical or visual access to shorelines as a condition of approval for shoreline development activities commensurate with the impacts of such development and the corresponding benefit to the public, ~~and~~ consistent with constitutional limitations.

11B-6: Develop and manage public access to prevent adverse impacts to adjacent private shoreline properties and developments.

~~23.20.040~~ Recreation:-

The recreation element provides for the preservation and expansion of water-oriented recreational opportunities that facilitate the public's ability to enjoy the physical and aesthetic qualities of the shoreline through parks, public access to tidelands and beaches, bicycle and pedestrian paths, viewpoints, and other recreational amenities.

~~Goal 11C:A-~~ ~~Goal To p~~ Provide opportunities and space for diverse forms of water-oriented recreation.

B. Objectives:-

11C-1: Locate, develop, manage, and maintain recreation areas in a manner that protects shoreline ecological functions and processes.

11C-2: Provide a balanced choice of water-oriented public recreational opportunities regionally. Ensure that shoreline recreation facilities serve projected County growth in accordance with the level of service standards established in the ~~Whatcom County~~ Comprehensive Plan and related goals and policies; ~~the~~

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Comprehensive Park and Recreation Open Space Plan, the
Whatcom County Bicycle Plan, and the Natural Heritage Plan.

11C-3: Acquire additional recreation areas and public access areas with
a high recreation value prior to demand to assure that sufficient
shoreline recreation opportunities are available to serve future
recreational needs.

11C-4: Encourage cooperation among public agencies, nonprofit
groups, and private landowners, and developers to increase and
diversify recreational opportunities through a variety of means
including incorporating water-oriented recreational opportunities
into mixed use developments and other innovative techniques.

11C-5: Recognize and protect the interest of all people of the state by
providing increased recreational opportunities within shorelines
of statewide significance and associated shorelands.

11C-6: Encourage private and public investment in recreation facilities.

11C-7: Locate, design, and operate recreational development in a
manner that minimizes adverse effects on adjacent properties
as well as other social, recreational, or economic activities.

23-20-050-Transportation and Essential Public Facilities:

The transportation and essential public facilities element provides for the general
location and extent of existing and proposed public thoroughfares, transportation
routes, terminals, and other public utilities and facilities.

Goal 11D:A: ~~Goal. To provide~~ **Provide transportation systems and essential
public facilities in shoreline areas without adverse effects
on existing shoreline use and development or shoreline
ecological functions and/or processes.**

~~B.~~ Objectives:

11D-1: Locate, develop, manage, and maintain transportation systems
and essential public facilities in a manner that protects shoreline
ecological functions and processes. Minimize and mitigate
unavoidable impacts.

11D-2: Locate and design transportation systems and essential public
facilities to be harmonious with the existing and future economic
and social needs of the community.

11D-3: Discourage the development of non-water-dependent
transportation systems and essential public facilities unless no
feasible alternatives exist. Devote roads within the shoreline
jurisdiction to low volume local access routes and shoreline
public access where feasible.

11D-4: When appropriate, require ~~adequate~~ appropriate compensation
where transportation systems and essential public facilities
reduce the benefits people derive from their property.

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- 1 | 11D-5: Provide for alternate modes of travel, encourage freedom of
2 | choice among travel modes, and provide multiple use
3 | transportation corridors where compatible in association with
4 | shoreline transportation development.
- 5 | 11D-6: Require transportation system and essential public facility
6 | development in shoreline areas to protect and enhance physical
7 | and visual shoreline public access.
- 8 | ~~23-20-060~~ **Shoreline Use:**
- 9 | The shoreline use element ~~considers~~ prioritizes the use and development of
10 | shorelines and adjacent land areas for housing, business, industry, transportation,
11 | agriculture, forestry, natural resources, recreation, education, public institutions,
12 | utilities, and other categories of public and private land use with respect to the
13 | type, general distribution, location, and extent of such uses and developments.
- 14 | **Goal 11E:A: ~~Goal. To preserve and develop shorelines in a manner~~**
15 | **~~that allows for an orderly balance of uses.~~**
- 16 | ~~B.~~ Objectives:
- 17 | 11E-1: Give preference to water-dependent and single-family
18 | residential uses that are consistent with preservation of
19 | shoreline ecological functions and processes. Give secondary
20 | preference to water-related and water-enjoyment uses. Allow
21 | non-water-oriented uses only when substantial public benefit is
22 | provided with respect to the goals of the SMAAct for public
23 | access and ecological restoration.
- 24 | 11E-2: Designate and maintain appropriate areas for protecting and
25 | restoring shoreline ecological functions and processes to control
26 | pollution and prevent damage to the shoreline environment
27 | and/or public health.
- 28 | 11E-3: Ensure shoreline uses are consistent with the ~~Whatcom County~~
29 | Comprehensive Plan.
- 30 | 11E-4: Balance the location, design, and management of shoreline uses
31 | throughout the County to prevent a net loss of shoreline
32 | ecological functions and processes over time.
- 33 | 11E-5: Encourage mixed use developments that include and support
34 | water-oriented uses and provide a substantial public benefit
35 | consistent with the public access and ecological restoration
36 | goals and policies of the SMAAct.
- 37 | 11E-6: Encourage shoreline uses and development that enhance
38 | shoreline ecological functions and/or processes or employ
39 | innovative features that further the purposes of the SMP
40 | ~~program~~.
- 41 | 11E-7: Encourage shoreline uses and development that enhance and/or
42 | increase public access to the shoreline.

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~~23-20-070~~ Conservation-

The shoreline conservation element provides for the protection of natural resources, and shoreline ecological functions and processes. Resources to be conserved and protected include, but are not limited to, wetlands; riparian, nearshore, and aquatic habitats; priority fish and wildlife habitats and species; floodplains; feeder bluffs and other geological features; cultural and historic resources; as well as scenic vistas and aesthetics.

Goal 11F:A: ~~Goal. To c~~**Conserve shoreline resources and important shoreline features, and protect shoreline ecological functions and the processes that sustain them to the maximum extent practicable.**

B. Objectives:-

11F-1: ~~Develop~~**Maintain** regulations and mitigation standards that ensure new shoreline developments prevent a net loss of shoreline ecological functions and processes. Implement such regulations and standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.

11F-2: Protect critical areas in accordance with ~~the policies and regulations in the County's critical areas regulations (WCC Chapter 16.16), as adopted by reference in the SMP.~~

11F-3: Manage renewable natural resources on a sustained yield basis. Extract nonrenewable natural resources in a manner that maintains the quality of other resources and shoreline ecological functions and processes.

11F-4: Prioritize protection and/or conservation of shoreline areas that are ecologically intact and minimally developed or degraded.

~~23-20-080~~ Archaeological, historical and Cultural Resources

The ~~archaeological-historical-cultural~~ resource element provides for protection, preservation and/or restoration of buildings, sites, and areas having archaeological, historical, cultural, or scientific value or significance. "Cultural resource" refers to any archaeological, historic, cemetery, or other cultural sites or artifacts; as well as those traditional food, medicine, fibers, and objects that sustain the religious, ceremonial, and social activities of affected Native American tribes that may be regulated under state or federal laws administered by the Washington State Department of Archaeologic and Historic Preservation (DAHP).

Comment [CES7]: DAHP definition.

Goal 11G:A: ~~Goal.~~**Protect shoreline features of historic, cultural, archeological, or scientific value or significance to prevent damage or destruction through coordination and consultation with the appropriate local, state and federal authorities, including affected Indian tribes.**

B. Objectives:-

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- 1 11G-1: Protect cultural resources sites in collaboration with appropriate
2 tribal, state, federal, and local governments.
- 3 11G-2 Engage in and encourage public agencies and private parties to
4 cooperate in the identification, protection and management of
5 cultural resources.
- 6 11G-3: Consult with the Washington State Department of Archaeology
7 and Historic Preservation (DAHP) and affected Native American
8 tribes when developing local policies and regulations for
9 identifying, protecting, and preserving cultural resources.
- 10 11G-4: Where appropriate, restore unique resources that have cultural,
11 archaeological, historic, educational, or scientific value or
12 significance to further enhance the value of the shorelines.
- 13 11G-5: Where appropriate, provide access to cultural resources in a
14 manner that is culturally sensitive and does not degrade the
15 resource or impact the quality of the environment; make access
16 to such sites available to parties of interest; provided, that
17 access to such sites must be designed and managed in a
18 manner that gives maximum protection to the resource.
- 19 11G-3: Provide opportunities for education related to archaeological,
20 historical, and cultural features where appropriate and
21 incorporated into public and private programs and development.

Comment [CES8]: New proposed policies consistent with our MOU with DAHP and Lummi Nation.

22 ~~23-20-090~~ Views and Aesthetics:

23 This element provides for preservation and/or protection of scenic vistas, views of
24 the water, and other aesthetic qualities of shorelines for public enjoyment.

25 Goal 11H:A: ~~Goal. To assure that the public's ability and opportunity~~
26 ~~to enjoy shoreline views and aesthetics is protected.~~

27 B: Objectives:

28 11H-1: Identify and protect areas with scenic vistas and areas where
29 the shoreline has high aesthetic value.

30 11H-2: Design development to minimize adverse impacts on views from
31 public property or views enjoyed by a substantial number of
32 residences.

33 ~~23-20-100~~ Restoration and Enhancement:

34 This element provides for the timely restoration and enhancement of ecologically
35 impaired areas in a manner that achieves a net gain in shoreline ecological
36 functions and processes above baseline conditions set as of the date of adoption of
37 the comprehensive SMP update, February 27, 2007 ~~as of the adoption of this~~
38 ~~program.~~

39 Goal 11I:A: ~~Goal. To reestablish, rehabilitate and/or otherwise~~
40 ~~improve impaired shoreline ecological functions and/or~~
41 ~~processes through voluntary and incentive-based public~~

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and private programs and actions that are consistent with the Shoreline Management Program Restoration Plan ~~(County Resolution 2007-011)~~ and other approved restoration plans.

B. Objectives:-

11I-1: Encourage and facilitate cooperative restoration and enhancement programs between local, state, and federal public agencies, tribes, nonprofit organizations, and landowners to address shorelines with impaired ecological functions and/or processes.

11I-2: Restore and enhance shoreline ecological functions, and processes, ~~and as well as shoreline~~ features through voluntary and incentive-based public and private programs, such as the Shore Friendly Program developed by the Washington State Department of Fish and Wildlife, Washington State Department of Natural Resources, and the Environmental Protection Agency.

11I-3: Target restoration and enhancement towards improving habitat requirements of priority and/or locally important wildlife species.

11I-4: Ensure restoration and enhancement is consistent with and, where practicable, prioritized based on the biological recovery goals for early Chinook and bull trout populations and other species and/or populations for which a recovery plan is available.

11I-5: Integrate restoration and enhancement with other parallel natural resource management efforts such as the WRIA 1 Salmonid Recovery Plan, Drayton Harbor and Portage Bay Shellfish Protection District Plans, WRIA 1 Watershed Management Plan, ~~Whatcom County Comprehensive Plan,~~ and the Puget Sound Salmon Recovery Draft Plan.

~~Chapter 23.30 – Shoreline Jurisdiction and Area Environment Designations~~

~~23.30.022 Shoreline area designations.~~

A. A set of 10 shoreline area designations has been developed as a part of the SMP ~~this program~~. The purpose of the shoreline area designations is to provide a systematic, rational, and equitable basis upon which to guide and regulate development within specific shoreline reaches.

B. Shoreline area designations have been determined after consideration of:

1. The ecological functions and processes that characterize the shoreline, together with the degree of human alteration; ~~and~~

Comment [AP9]: Draft revision per Scoping Document, Item #8a, Reference WDFW and DNR's Shore Friendly Program.

Comment [MD10]: Moved some content from Chapter 23.30. Section reviewed and coordinated with Title 23 updates.

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2. Existing development patterns together with WCC Title 20, Zoning, designations, the ~~County~~ Comprehensive Plan designations, and other officially adopted plans; ~~and~~
3. Federal and tribal ownership status; ~~and~~
4. The goals of Whatcom County citizens for their shorelines; ~~and~~
5. Pursuant to RCW 90.58.100(4), in designating state-owned shorelines, consideration has been given to public demand for wilderness beaches, ecological study areas, and other recreational activities; ~~and~~
6. Other state policies in the ~~SMA~~ Act and the ~~SMP~~ Shoreline Master Program Guidelines (RCW 90.58.020 and Chapter 173-26 WAC, respectively).

~~23.30.030 Urban Shoreline Area~~

~~23.30.031 Urban shoreline area – Purpose~~

The purpose of the urban shoreline area is to provide for intensive development of water-oriented commercial, transportation, and industrial uses and accommodate mixed use developments such as those consisting of urban density residential, commercial, and industrial uses, while protecting existing shoreline ecological functions and processes and restoring shoreline ecological functions and/or processes in areas that have been previously degraded.

~~23.30.032 Urban shoreline area – Designation Criteria~~

The urban shoreline area is applied to shoreline areas zoned commercial, industrial, and urban density residential within urban growth areas and ~~limited~~ industrial or commercial areas in Limited Areas of More Intense Rural Development (LAMIRDS), if they:

- A. Are currently characterized by high intensity development and/or uses; are designated by the Comprehensive Plan for high intensity uses or intensive uses related to commerce, transportation or navigation; or are suitable and planned for high intensity mixed use; and
- B. Do not contain limitations to urban use such as geologic hazards, and have adequate utilities and access; and
- C. Do not provide important ecological functions that would be significantly compromised by high intensity residential, commercial, or industrial use.

~~23.30.033 Urban shoreline area – Policies~~

Development within urban shoreline areas shall be consistent with the following policies:

- ~~Policy 11J-1:A-~~ New urban character development should be directed toward already developed or developing areas where compatible.
- ~~Policy 11J-2:B-~~ First priority should be given to water-dependent uses. Second priority should be given to water-related and then water-enjoyment uses. Non-water-oriented uses should not be allowed

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except as part of mixed use developments. Non-water-oriented uses may also be allowed in limited situations where they do not conflict with or limit opportunities for water-oriented uses or on sites where there is no direct access to the shoreline, or where the needs of existing and future water-dependent uses are met.

~~23.30.040~~ Urban Resort Shoreline Area

~~23.30.041~~ Urban resort shoreline area — Purpose

The purpose of the urban resort shoreline area is to provide for intensive residential and commercial uses geared to the needs of tourists and day visitors while protecting existing shoreline ecological functions and processes. Emphasis is on hotels, motels, shops, restaurants, commercial rental campgrounds, rental cabins, and shoreline-related recreation facilities.

~~23.30.042~~ Urban resort shoreline area — Designation Criteria

The urban resort shoreline area is applied to shoreline areas identified in the Comprehensive Plan as suitable for resort commercial development with substantial features that might reasonably attract resort development compatible with other development in the area, and which have existing and/or planned infrastructure sufficient to support such development.

~~23.30.043~~ Urban resort shoreline area — Policies

Development within urban resort shoreline areas shall be consistent with the following policies:

Policy 11K-1:A- Scale and design of resort development should assure compatibility with allowed uses of adjacent shoreline areas and shoreline ecological functions and processes.

Policy 11K-2:B- Buildings over 35 feet in height may be permitted if additional open space, view areas, public access and/or other amenities are provided.

~~23.30.050~~ Urban Conservancy Shoreline Area

~~23.30.051~~ Urban conservancy shoreline area — Purpose

The purpose of the urban conservancy shoreline area is to protect shoreline ecological functions and processes in urban growth areas and Limited Areas of More Intense Rural Development (LAMIRDS) that are not designated for high intensity residential use and are not generally suitable for water-dependent uses. The primary management goal is to preserve shoreline ecological functions and processes by avoiding forms of development that would be incompatible with existing functions and processes, as well as identify and focus restoration efforts in areas where benefits to overall functions and processes can be realized. This policy should be furthered by maintaining most of the area's natural character.

Comment [CES11]: Copied from Conservancy Shoreline Area, as these two are similar though intended for different areas with different levels of existing development.

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~~23.30.052 Urban conservancy shoreline area~~ — Designation Criteria

The urban conservancy shoreline area is applied to shoreline areas inside urban growth areas where any of the following characteristics apply:

- A. They support or retain important shoreline ecological functions and/or processes, even though partially developed.
- B. They have the potential for development at an intensity and character that is compatible with preserving and restoring ecological functions. They are generally not designated for high intensity residential use, commercial use, or industrial use.
- C. They are characterized by critical areas or ~~indicate~~ the presence of other valuable or sensitive ecological resources.

~~23.30.053 Urban conservancy shoreline area~~ — Policies

Development within urban conservancy shoreline areas shall be consistent with the following policies:

- ~~Policy 11L-1:~~ A. Primary permitted uses should consist of low intensity residential uses or other low intensity uses that preserve the natural character of the area or promote preservation of open space and critical areas.
- ~~Policy 11L-2:~~ B. Moderate to high intensity residential use may be permitted if the proposed uses and design result in substantial open space, public access and/or restoration of shoreline ecological functions and/or processes, and if compatible with surrounding uses.
- ~~Policy 11L-3:~~ C. Public access and public recreation facilities are a preferred use if they will not cause substantial ecological impacts and when restoration of ecological functions is incorporated.
- ~~Policy 11L-4:~~ D. Low intensity commercial uses may be permitted if the specific uses and design result in substantial open space, public access, and/or restoration of ecological functions, and if compatible with surrounding uses.

~~23.30.060 Shoreline Residential Area~~

~~23.30.061 Shoreline residential area~~ — Purpose

The shoreline residential shoreline area accommodates residential development and accessory structures that are consistent with this chapter.

~~23.30.062 Shoreline residential area~~ — Designation Criteria

The shoreline residential shoreline area is applied to shorelines if they have been predominantly developed with single-family or multifamily residential uses or are planned and platted for residential development. The designation is generally applied to residential densities of greater than one unit per acre.

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~~23.30.063 Shoreline residential area – Policies~~

Development within shoreline residential shoreline areas shall be consistent with the following policies:

~~Policy 11M-1:A-~~ The scale and density of new uses and development should be compatible with, and protect or enhance, the existing residential character of the area while sustaining shoreline ecological functions and processes.

~~Policy 11M-2:B-~~ Public or private outdoor recreation facilities should be encouraged if compatible with the character of the area. Preferred uses include water-dependent and water-enjoyment recreation facilities that provide opportunities for substantial numbers of people to access and enjoy the shoreline.

~~Policy 11M-3:C-~~ Commercial development should be limited to water-oriented uses. Non-water-oriented commercial uses may be permitted as part of mixed use developments where the primary use is residential; provided, that such uses ~~should~~ provide a substantial benefit with respect to the goals and policies of ~~the SMP~~ ~~this program~~, such as providing public access or restoring degraded shorelines.

~~23.30.070 Rural Shoreline Area~~

~~23.30.071 Rural shoreline area – Purpose~~

The purpose of the rural shoreline area is to protect shoreline ecological functions in areas having a rural character characterized by open space and low density development including, but not limited to: residences, agriculture, forestry, and outdoor recreation. Uses should be compatible with the physical capabilities and limitations, natural resources, and shoreline ecological functions and processes of the area.

~~23.30.072 Rural shoreline area – Designation Criteria~~

The rural shoreline area is applied to shoreline areas outside urban growth areas, particularly areas designated as Rural in the ~~Whatcom County~~ Comprehensive Plan, and includes areas:

A. Where the shoreline currently accommodates residential uses outside urban growth areas and is characterized by low density development, pasture, agriculture, woodlots, home occupations, and cottage industries. The distribution of rural land use is adjacent to agricultural, forestry, and urban land uses and often provides a transition between urban areas and commercial agriculture and forestry uses. Natural vegetative cover and topography have been altered in many rural areas, but substantial ecological functions, and/or the potential for restoration of ecological functions, are present.

B. That are now used or potentially usable for a mix of agriculture, forestry, and residential use.

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- C. Where residential development is or should be of low density, because of limitations by physical features, infrastructure, the presence of critical areas, and/or lack of utilities or access.
- D. That have high recreational value or unique historic or cultural resources.
- E. Where low intensity outdoor recreation use or development would be appropriate and compatible with other uses and the physical environment.
- F. Where the shoreline has been developed with low intensity water-dependent uses.

~~23.30.073 Rural shoreline area~~ — Policies

Development within rural shoreline areas shall be consistent with the following policies:

Policy 11N-1:~~A:~~ Uses in rural areas should protect or enhance the rural character of the shoreline and sustain the shoreline ecological functions and processes by limiting building density and height, and providing effective setbacks, buffers, and open space.

Policy 11N-2:~~B:~~ Residential development consistent with the rural character of the area is permitted, provided it includes measures to protect ecological functions and processes. Related uses consistent with the rural character of the area are permitted.

Policy 11N-3:~~C:~~ Public or private outdoor recreation facilities should be encouraged if compatible with the rural character of the area and developed in a manner that maintains shoreline ecological functions and processes. Preferred uses include water-oriented recreation facilities that do not deplete shoreline resources over time, such as boating facilities, angling, wildlife viewing trails, and swimming beaches.

Policy 11N-4:~~D:~~ Industrial or commercial development should be limited to water-oriented commercial and industrial uses in the limited locations where such uses have been established or at sites in rural communities that possess appropriate shoreline conditions and services sufficient to support such developments. Non-water-dependent uses should only be allowed when they provide a substantial benefit with respect to the goals and policies of the SMP~~this program~~, such as providing public access and/or restoring degraded shorelines.

Policy 11N-5:~~E:~~ Agriculture and forestry consistent with rural character and the maintenance of shoreline ecological functions and processes should be encouraged.

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~~23.30.080 Resource Shoreline Area~~

~~23.30.081 Resource shoreline area – Purpose~~

The purpose of the resource shoreline area is to protect shoreline ecological functions and processes in areas designated in the ~~Whatcom County~~ Comprehensive Plan as agriculture ~~resource lands~~, rural forestry, commercial forestry, and mineral resource lands and to protect the economic base of those lands and limit incompatible uses.

~~23.30.082 Resource shoreline area – Designation Criteria~~

The resource shoreline area is applied to shoreline areas designated as agriculture, rural forestry, commercial forestry, and mineral resource lands in the ~~Whatcom County~~ Comprehensive Plan and includes areas where the shoreline currently accommodates ongoing resource management, where natural vegetation cover has been altered but substantial ecological functions, or the potential for restoring ecological functions, are present.

~~23.30.083 Resource shoreline area – Policies~~

Development within resource shoreline areas shall be consistent with the following policies:

Policy 110-1:A- Uses in resource areas should protect the economic base of those lands, limit incompatible uses, and sustain the shoreline area ecological processes and functions by limiting uses and intensity. Residential use is generally limited to one dwelling per existing parcel. The dwelling may be located within the shoreline jurisdiction, only where no other building site is feasible on the parcel.

Policy 110-2:B- Public or private outdoor recreation facilities should be permitted if they do not displace designated resource lands and if they are developed in a manner that maintains shoreline ecological functions. Preferred uses include water-dependent and water-enjoyment recreation facilities.

Policy 110-3:C- Industrial or commercial use and development should be limited to uses that serve resource uses. Such uses may be located within the shoreline only if they are water-dependent, water-related, or if no other feasible location exists within the contiguous property.

~~23.30.090 Conservancy Shoreline Area~~

~~23.30.091 Conservancy shoreline area – Purpose~~

The purpose of the conservancy shoreline area is to retain shoreline ecological functions in areas outside of urban growth areas and LAMIRDs where important ecological processes have not been substantially degraded by human activities. ~~Conservancy areas are designated outside of urban growth areas. The primary~~

Comment [CES12]: Clarification, as per the SMA, Conservancy is only to be applied outside of urban areas.

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management goal is to preserve shoreline ecological functions and processes by avoiding forms of development that would be incompatible with existing functions and processes, as well as identify and focus restoration efforts in areas where benefits to overall functions and processes can be realized. This policy should be furthered by keeping overall intensity of development or use low, and by maintaining most of the area's natural character.

~~23.30.092 Conservancy shoreline area~~ — Designation Criteria

The conservancy shoreline area is applied to shoreline areas outside urban growth areas and LAMIRDS that include areas:

- A. Where development activities and uses are buffered from and do not substantially degrade ecological processes and functions.
- B. Where ecological functions are more intact than in areas designated rural or resource.
- C. Of outstanding scenic quality or other aesthetic qualities of high value to the region, which would likely be diminished unless development is strictly controlled.
- D. Containing critical areas or other sensitive natural or cultural features that require more than normal restrictions on development and use.
- E. Having the potential to influence ecological processes in a manner that will produce ecosystem-wide benefits upon restoration.
- F. That contain valuable or sensitive natural or cultural features that preclude more than a low overall density of residents, recreation use, structures, or livestock, as well as extensive alterations to topography or other features.
- G. Have recreational value to the region that would likely be diminished unless development is strictly controlled.

~~23.30.093 Conservancy shoreline area~~ — Policies

Development within conservancy shoreline areas shall be consistent with the following policies:

Policy 11P-1:A- Natural ecological processes should be protected and renewable resources managed so that ecological functions and the resource base are maintained. Nonrenewable resources should only be consumed in a manner compatible with conservation of other resources and other appropriate uses.

Policy 11P-2:B- Permitted uses should be limited to those compatible with each other and with conservation of shoreline ecological processes and resources.

Policy 11P-3:C- Shorelines should be protected from ~~harmful~~ concentrations of people, livestock, buildings, or structures that would adversely impact shoreline ecological functions and processes.

Comment [AP13]: Revised for clarity and usability.

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- 1 | ~~Policy 11P-4:D-~~ Opportunities for ecological restoration should be pursued,
2 | prioritizing those areas with the greatest potential to restore
3 | ecosystem-wide processes and functions.
- 4 | ~~Policy 11P-5:E-~~ Outstanding recreational or scenic values should be protected
5 | from incompatible development.

6 | **~~23.30.100 Natural Shoreline Area~~**

7 | **~~23.30.101 Natural shoreline area—Purpose~~**

8 | The purpose of the natural shoreline area is to ensure long-term preservation of
9 | ecologically intact shorelines inside or outside urban growth areas ~~that are~~
10 | ~~ecologically intact~~.

11 | **~~23.30.102 Natural shoreline area—Designation Criteria~~**

12 | The natural shoreline area is applied to shoreline areas where any of the following
13 | characteristics apply:

- 14 | A. The majority of natural ecological shoreline functions and/or processes are
15 | retained, often evidenced by the shoreline configuration and the presence of
16 | native vegetation. Generally, but not necessarily, they include ecologically
17 | intact shorelines that are free of structural shoreline modifications,
18 | structures, and intensive human uses.
- 19 | B. Forested areas that generally include native vegetation with diverse plant
20 | communities, multiple canopy layers, and the presence of large woody debris
21 | available for recruitment to adjacent water bodies.
- 22 | C. Valuable functions are provided for the larger aquatic and terrestrial
23 | environments, which could be lost or significantly reduced by human
24 | development.
- 25 | D. Ecosystems or geologic types that are of particular scientific and educational
26 | interest are represented.
- 27 | E. Largely undisturbed areas of wetlands, estuaries, unstable bluffs, coastal
28 | dunes, and spits are present.
- 29 | F. New development, extractive uses, or physical modifications cannot be
30 | supported without significant adverse impacts to ecological functions and/or
31 | processes or risk to human safety.

32 | **~~23.30.103 Natural shoreline area—Policies~~**

33 | Development within natural shoreline areas shall be consistent with the following
34 | policies:

- 35 | ~~Policy 11Q-1:A-~~ Preservation of the area's ecological functions, natural features
36 | and overall character must receive priority over any other
37 | potential use. Uses should not degrade shoreline ecological
38 | functions or processes or the natural character of the shoreline
39 | area. New development or significant vegetation removal that

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would reduce the capability of the shoreline to perform a full range of ecological functions or processes should not be permitted.

Policy 11Q-2: Private and/or public enjoyment of natural shoreline areas should be encouraged and facilitated through low intensity recreational, scientific, historical, cultural, and educational research uses; provided, that no significant ecological impact on the area will result.

Policy 11Q-3: Agricultural and forestry uses of a very low intensity nature may be consistent with the natural shoreline area when such use is subject to appropriate limitations or conditions to assure that the use does not expand or alter practices in a manner inconsistent with the purpose of the designation.

Policy 11Q-4: The following uses should not be permitted in the natural shoreline area:

1. Commercial uses.
2. Industrial uses.
3. Non-water-oriented recreation.
4. Roads, utility corridors, and parking areas that can be located outside of natural shoreline areas.

~~23.30.110 Aquatic Shoreline Area~~

~~23.30.111 Aquatic shoreline area—Purpose~~

The purpose of the aquatic shoreline area is to protect, restore, and manage the characteristics and resources of the areas waterward of the ordinary high water mark.

~~23.30.112 Aquatic shoreline area—Designation Criteria~~

The aquatic shoreline area is defined as the area waterward of the ordinary high water mark of all streams, rivers, lakes, and marine water-bodies; ~~and lakes,~~ constituting shorelines of the state together with their underlying lands and their water column.

~~23.30.113 Aquatic shoreline area—Policies~~

Development within aquatic shoreline areas shall be consistent with the following policies:

Policy 11R-1: New over-water structures should only be permitted for water-dependent uses, public access, or ecological restoration. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged.

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Policy 11R-2: All developments and uses on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.

Policy 11R-3: Uses that adversely impact the ecological functions of critical saltwater and freshwater habitats should not be permitted except where necessary to achieve the objectives of RCW 90.58.020, and then only when all potential impacts are mitigated as necessary to assure maintenance of shoreline ecological functions and processes.

Policy 11R-4: Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural conditions.

~~23.30.120~~ Cherry Point Management Area

Purpose

Washington State natural resource agencies and Whatcom County have identified certain portions of the Cherry Point management area as providing herring spawning habitat and other key habitat characteristics that warrant special consideration due to their importance to regional fisheries and other elements of the aquatic environment. The purpose of the Cherry Point management area is to provide a regulatory framework that recognizes and balances the special port, industrial, and natural resource needs associated with the development of this marine resource.

Comment [P/C14]: Moved from Use & Modification section, CPMA, Policies 11TT-1 & 2, to fit the layout of other sections where in purpose is located in the Shoreline Environments section.

Designation Criteria

The Cherry Point Management Area is a geographic area lying between the eastern property boundary of Tax Lots 2.27 and 2.28 within the SE 1/4 of Section 11, Township 39 North, Range 1 West, as it existed on June 18, 1987, and the southern boundary of Section 32, Township 39 North, Range 1 East, extending waterward a distance of 5,000 feet and extending landward for 200 feet as measured on a horizontal plane from the OHWM. This area shall have the Cherry Point Management Area shoreline environment designation.

Comment [CES15]: Copied from original definition of the CPMA in Title 23

Policies

The policies applicable to the Cherry Point Management Area are found in the Shoreline Use and Modifications Policies section of this chapter; applicable regulations and standards, etc., applicable to the Cherry Point management area are found in WCC Title 23.400-170, except as otherwise specified therein.

Shorelines of Statewide Significance

Comment [MD16]: Moved some content from Chapter 23.40. Section reviewed and coordinated with Title 23 updates.

~~23.40.010~~ Adoption of policy:

In accordance with RCW 90.58.020, the following management and administrative policies are hereby adopted for all shorelines of statewide significance in unincorporated Whatcom County, as defined in RCW 90.58.030(2)(e) and identified

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in WCC ~~23.2.060-40.020~~. Consistent with the policy contained in RCW 90.58.020, preference shall be given to the uses that are consistent with the statewide interest in such shorelines. In the following order or preference, these are uses that:

Comment [CES17]: The language of WAC 173-26-181 recognizes an order of preference

A. Recognize and protect the statewide interest over local interest.

B. Preserve the natural character of the shoreline.

C. Result in long-term over short-term benefit.

D. Protect the resources and ecology of the shoreline.

E. Increase public access to publicly owned areas of the shoreline.

F. Increase recreational opportunities for the public in the shoreline.

G. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

Uses that are not consistent with these policies should not be permitted on shorelines of statewide significance.

~~23.40.030 Policies for Shorelines of Statewide Significance~~

The statewide interest should be recognized and protected over the local interest in shorelines of statewide significance. To ensure that statewide interests are protected over local interests, the County shall review all development proposals within shorelines of statewide significance for consistency with RCW 90.58.030 and the following policies:

Policy 11-1:A. Redevelopment of shorelines should be encouraged where it restores or enhances shoreline ecological functions and processes impaired by prior development activities.

Policy 11S-2:B. The Washington Departments of Fish and Wildlife and Ecology, the Lummi Nation, the Nooksack Tribe, and other resources agencies should be consulted for development proposals that could affect anadromous fisheries.

Policy 11S-3:C. Where commercial timber cutting takes place pursuant to WCC ~~23.40.11023-90.110~~ and RCW 90.58.150, reforestation should take place as soon as possible.

Policy 11S-4:D. Activities that use shoreline resources on a sustained yield or non-consuming basis and that are compatible with other appropriate uses should be given priority over uses not meeting these criteria.

Policy 11S-5:E. The range of options for shoreline use should be preserved to the maximum possible extent for succeeding generations. Development that consumes valuable, scarce, sensitive, or irreplaceable natural resources should be protected to the maximum extent feasible and should not be permitted if alternative sites are available.

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- 1 | Policy 11S-6:F- Potential short-term economic gains or convenience should be
2 | measured against potential long-term and/or costly impairment
3 | of natural features.
- 4 | Policy 11S-7:G- Protection or enhancement of aesthetic values should be
5 | actively promoted in design review of new or expanding
6 | development.
- 7 | Policy 11S-8:H- Resources and ecological systems of shorelines of statewide
8 | significance should be protected. Shorelands and submerged
9 | lands should be protected to accommodate current and
10 | projected demand for economic resources of statewide
11 | importance, such as commercial shellfish beds.
- 12 | ~~1. Those limited shorelines containing unique, scarce and/or~~
13 | ~~sensitive resources should be protected to the maximum extent~~
14 | ~~feasible.~~
- 15 | Policy 11S-9:J- Erosion and sedimentation from development sites should be
16 | controlled to minimize adverse impacts on ecosystem processes.
17 | If site conditions preclude effective erosion and sediment
18 | control, excavations, land clearing, or other activities likely to
19 | result in significant erosion should be severely limited.
- 20 | Policy 11S-10:K- Public access development in extremely sensitive areas should
21 | be restricted or prohibited. All forms of recreation or access
22 | development should be designed to protect the resource base
23 | upon which such uses in general depend.
- 24 | Policy 11S-11:L- Public and private developments should be encouraged to
25 | provide trails, viewpoints, water access points and shoreline-
26 | related recreation opportunities whenever possible. Such
27 | development is recognized as a high priority use.
- 28 | Policy 11S-12:M- Development not requiring a ~~waterside or~~ shoreline location
29 | should be located inland so that lawful public enjoyment of
30 | shorelines is ~~enhanced~~ preserved.
- 31 | Policy 11S-13:N- Lodging and related facilities should be located inland and
32 | provide for appropriate means of access to the shoreline.
- 33 | **~~Chapter 23.90 General Policies and Regulations~~**
- 34 | The following general policies apply to all use and development activities on
35 | shorelines.
- 36 | **~~23.90.020 Land Use~~**
- 37 | ~~The following land use policies delineate the use preferences of the Act and this~~
38 | ~~program and are intended to support the goals and objectives of the program.~~
- 39 | ~~A. Policies.~~
- 40 | Policy 11T-1: Single-family residences should be given preference for location
41 | on shorelines in those limited instances when an alteration of

Comment [AP18]: Incorporated into Policy 11X-5 above to avoid redundancy.

Comment [MD19]: Moved most policy content from Chapter 23.90. Section reviewed and coordinated with Title 23 updates.

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the shorelines is authorized (RCW 90.58.020). ~~Single-family residences occupied prior to January 1, 1992, and their appurtenant structures should be protected against damage or loss caused by shoreline erosion; provided, that measures to protect single family residences should be designed to minimize harm to the shoreline environment. However, After that date, all new single-family residences permitted after January 1, 1992, and their appurtenant structures should be built in a manner so as to not need protective structures.~~

Comment [CES20]: Moved to Shoreline Stabilization section at P/C's request, as it's a separate concept from the 1st sentence.

Policy 11T-2:

Shoreline uses that are water-dependent or water-related should be given preference (RCW 90.58.020). Such uses should be located, designed, and maintained in a manner that minimizes adverse impacts to shoreline ecological functions and/or processes. Non-water-oriented development may be allowed; provided, that existing water-dependent uses are not displaced and the future supply of sites for water-dependent or water-related uses is not compromised.

Policy 11T-3:

Adequate space should be reserved on shorelines to meet the current and projected demand for water-dependent uses, in conjunction with areas provided in cities, towns and areas under tribal jurisdiction.

~~23-90-030~~ Ecological Protection and Critical Areas

~~A. _____ Policies:~~

Policy 11U-1:

Shoreline use and development should be carried out in a manner that prevents or mitigates adverse impacts so that the resulting ecological condition does not become worse than the current condition. This means assuring no net loss of ecological functions and processes and protecting critical areas designated in WCC Chapter 16.16, in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property. Permitted uses shall be designed and conducted to minimize, insofar as practical, any resultant damage to the ecology and environment (RCW 90.58.020). Shoreline ecological functions that should be protected include, but are not limited to, fish and wildlife habitat, food chain support, and water temperature maintenance. Shoreline processes that should be protected include, but are not limited to, water flow; littoral drift; erosion and accretion; infiltration; ground water recharge and discharge; sediment delivery, transport, and storage; large woody debris recruitment; organic matter input; nutrient and pathogen removal; and stream channel formation/maintenance.

Policy 11U-2:

In assessing the potential for net loss of ecological functions or processes, project-specific and cumulative impacts should be considered.

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Policy 11U-3: Development standards for density, frontage, setbacks, impervious surface, shoreline stabilization, vegetation conservation, buffers, critical areas, and water quality should protect existing shoreline ecological functions and processes. During permit review, the administrator should consider the expected impacts associated with proposed shoreline development when assessing compliance with this policy.

~~23.90.040~~ Water Quality and Quantity

~~A. Policies:~~

Policy 11V-1: The location, construction, operation, and maintenance of all shoreline uses and developments should maintain ~~or enhance~~ the quantity and maintain or enhance the quality of surface and ground-water over the long term.

Policy 11V-2: Shoreline use and development should minimize the need for chemical fertilizers, pesticides, or other similar chemical treatments to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values.

Policy 11V-3: Appropriate buffers along all wetlands, streams, lakes, and marine water bodies should be provided and maintained in a manner that avoids the need for chemical treatment.

~~23.90.050~~ Views and Aesthetics

~~A. Policies:~~

Policy 11W-1: Shoreline use and development activities should be designed and operated to minimize obstructions of the public's visual access to the water and shoreline.

Policy 11W-2: Shoreline use and development should not significantly detract from shoreline scenic and aesthetic qualities that are derived from natural or cultural features, such as shoreforms, vegetative cover and historic sites/structures.

Policy 11W-3: Aesthetic objectives should be implemented through regulations and criteria for site planning, maximum height, setbacks, siting of buildings and accessories, screening, vegetation conservation, architectural standards, sign control regulations, appropriate development siting, designation of view corridors, and maintenance of natural vegetative buffers.

Policy 11W-4: To protect shoreline ecological functions and aesthetics, vegetation conservation should be preferred over the creation or maintenance of views from shoreline properties. Clearing, thinning, and/or limbing for limited view corridors should only be allowed where it does not adversely impact ecological and/or aesthetic values, and/or slope stability. ~~Vegetation conservation~~

Comment [CES21]: Development shouldn't enhance the quantity of surface water. We're not supposed to *increase* stormwater runoff.

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should be preferred over the creation or maintenance of views from property on the shoreline to protect shoreline ecological functions and aesthetics.

~~23.90.060~~ Vegetation Conservation

~~A. Policies:~~

Policy 11X-1: Where new developments and/or uses are proposed, native shoreline vegetation should be conserved to maintain shoreline ecological functions and/or processes and mitigate the direct, indirect and/or cumulative impacts of shoreline development, wherever feasible.

~~Important functions of shoreline vegetation include, but are not limited to:~~

~~Providing shade necessary to maintain water temperatures required by salmonids, forage fish, and other aquatic biota.~~

~~Regulating microclimate in riparian and nearshore areas.~~

~~Providing organic inputs necessary for aquatic life, including providing food in the form of various insects and other benthic macroinvertebrates.~~

~~Stabilizing banks, minimizing erosion and sedimentation, and reducing the occurrence/severity of landslides.~~

~~Reducing fine sediment input into the aquatic environment by minimizing erosion, aiding infiltration, and retaining runoff.~~

~~Improving water quality through filtration and vegetative uptake of nutrients and pollutants.~~

~~Providing a source of large woody debris to moderate flows, create hydraulic roughness, form pools, and increase aquatic diversity for salmonids and other species.~~

~~Providing habitat for wildlife, including connectivity for travel and migration corridors.~~

Comment [MD22]: Importance of veg has been established; don't need to repeat in a policy.

~~23.90.070~~ Archaeological, Historic and Cultural Resources

The following policies apply to cultural resources that are (a) listed on the national, state, or local registers of historic places; (b) recorded by the Washington State Department of Archaeology and Historic Preservation (DAHP), a Native American tribe, and/or a local jurisdiction; or (c) undiscovered, inadvertently uncovered, or yet unrecorded.

Archaeological sites located in (as well as outside of) shoreline jurisdiction are subject to RCW Chapter 27.44 (Indian graves and records) and RCW Chapter 27.53 (Archaeological sites and records). Shoreline uses or development that may impact such sites shall comply with WAC Chapter 25-48 as well as the provisions of this Shoreline Master Program.

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Pursuant to RCW 27.53.070, information and documents pertaining to the location of archaeological sites or resources are confidential and not considered public records that require disclosure.

A. Policies:

Policy 11X-1: The County should work with tribal, state, federal, and local governments as appropriate to maintain an inventory of all known significant ~~local historic, cultural and archaeological sites~~ resources in observance of applicable state and federal laws protecting such information from general public disclosure. As appropriate, such sites should be protected, preserved and/or restored for study, education, and/or public enjoyment to the maximum possible extent.

Policy 11X-2: Site development plans should incorporate provisions for ~~historic, cultural and archaeological site~~ resource preservation, restoration, and education with open space or recreation areas whenever compatible and possible.

~~3. Cooperation among involved private and public parties is encouraged to achieve the archaeological, historical and cultural element goals and objectives of this program.~~

Comment [AP23]: This is captured in policies #1 and #4 (revised to #3).

Policy 11X-3: 4- Owners of property containing ~~identified historic, cultural or archaeological sites~~ resources are encouraged to make development plans known well in advance of application, so that appropriate agencies such as the Lummi Nation, Nooksack Tribe, Washington State Department of Archaeology and Historic Preservation, and others may have ~~ample~~ adequate time to assess the site and make arrangements to preserve ~~historic, cultural and archaeological~~ values as applicable.

Policy 11X-4: 5- Private and public owners of historic sites should be encouraged to provide public access and educational opportunities in a manner consistent with long-term protection of both historic values and shoreline ecological functions.

Policy 11X-5: 6- ~~Historic, cultural, and archaeological site~~ Development on sites containing cultural resources should be planned and carried out so as to prevent impacts to the resource. Impacts to neighboring properties and other shore uses should be limited to temporary or reasonable levels.

Policy 11X-6: 7- If development is proposed adjacent to an identified ~~historic, cultural or archaeological site~~ resource, then the proposed development should be designed and operated so as to be compatible with continued protection of ~~the historic, cultural or archaeological~~ that site resource.

Policy 11X-7: 8- The cultural resource provisions of this program are consistent with Chapters 27.44 and 27.53 RCW and WAC 25-48-060. In

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accordance with state law, all applicants are subject to these requirements.

Policy 11X-8: The County shall consult with DAHP and affected Native American tribes as appropriate in implementing the cultural archaeological, and historic resources goals, objectives, policies, and regulations of this ~~program-SMP~~.

Policy 11X-9: In reviewing development proposals, the County shall take, or cause project applicants to take, all required actions to:

1. Minimize the risk of disturbing cultural resources within Whatcom County shorelines.
2. Due to the limited and irreplaceable nature of the resource(s), prevent the destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Tribes and the DAHP.
3. Consult with professional archaeologists, DAHP, and affected Tribes before permitting or otherwise approving the use or development of shoreline areas containing cultural resources. This consultation shall be accomplished through the regulations and procedures provided in WCC Title 23.
4. Consult with DAHP and affected Tribes and coordinate with project archaeologists to establish site- and project-specific procedures for protection and management of cultural resources.
5. Make informed specific land use decisions based upon information provided by DAHP and Tribes.
6. Ensure the use of the best available information, technology, and techniques in identifying, protecting, preserving, and restoring cultural resources.

Comment [CES24]: New policy based on language of our MOU with DAHP and Lummi Nation.

~~23.90.080~~ **Public Access**

A. ~~Policies:~~

Policy 11Y-1: Use and development that provide an opportunity for substantial numbers of ~~the~~ people to enjoy the shorelines of the state are a preferred use.

Policy 11Y-2: Physical or visual access to shorelines should be incorporated in all new development when the development would either generate a demand for one or more forms of such access, and/or would impair existing legal access opportunities or rights. ~~Public health and safety concerns should also be adequately addressed and maintenance of shoreline ecological functions and/or processes should be assured. As required by the governing principles, all such conditions should be consistent~~

Comment [MD25]: Addressed in #6 below.

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with all relevant constitutional and other legal limitations on regulation of private property.

Policy 11Y-3: Public access should be provided for water-oriented uses and non-water-dependent uses and developments that increase public use of the shorelines and public aquatic lands, or that would impair existing, legal access opportunities.

Policy 11Y-4: Non-water-related uses or activities located on the shoreline should provide public access as a public benefit.

Policy 11Y-5: Public access area and/or facility requirements should be commensurate with the scale and character of the development and should be reasonable, effective, and fair to all affected parties including but not limited to the land-owner and the public.

Policy 11Y-6: Public access design should provide for public safety and minimize potential impacts to private property, individual privacy, and shoreline ecological functions and processes.

Policy 11Y-7: Shoreline development by public entities, such as local governments, port districts, state agencies, and public utility districts, should provide public access measures as part of each development project, unless such access is shown to be incompatible due to reasons of safety, security, or impact to the shoreline.

~~23.90.090~~ Site Planning

~~A. Policies:~~

Policy 11Z-1: Development and use should be designed in a manner that directs land alteration to the least sensitive portions of the site to maximize vegetation conservation; minimize impervious surfaces and runoff; protect riparian, nearshore and wetland habitats; protect wildlife and habitats; protect archaeological, historic, and cultural resources; and preserve aesthetic values. This may be accomplished by minimizing the project footprint, the use of clustering, and other appropriate design approaches.

Policy 11Z-2: To maintain shoreline ecological functions and processes, low impact and sustainable development practices such as rain gardens, and pervious surfacing methods including, but not limited to, porous paving blocks, porous concrete, and other similar materials, should be incorporated in developments where site conditions allow ~~to maintain shoreline ecological functions and processes~~. Topographic modification, vegetation clearing, use of impervious surfaces, and alteration of natural drainage or other features should be limited to the minimum necessary to accommodate approved uses and development. An engineering

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geologist should be consulted prior to using infiltration practices on shore bluffs.

Policy 11Z-3:

Accessory development or use that does not require a shoreline location should be located outside of shoreline jurisdiction unless such development is required to serve approved water-oriented uses and/or developments. When sited within shorelines jurisdiction, uses and/or developments such as parking, service buildings or areas, access roads, utilities, signs, and storage of materials should be located inland away from the land/water interface and landward of water-oriented developments and/or other approved uses.

Policy 11Z-4:

Development should be located, designed, and managed so that impacts on shoreline or upland uses are minimized through bulk and scale restrictions, setbacks, buffers, and control of proximity impacts such as noise or light and glare.

Policy 11Z-5:

Shoreline uses should not deprive other uses of reasonable access to navigable waters. Public recreation activities such as fishing, clam digging, swimming, boating, and wading, and other water-related recreation should be preserved and enhanced. The rights of treaty tribes to resources within their usual and accustomed areas should be accommodated.

Climate Change/Sea Level Rise

Policy 11AA-1:

Coordinate with Tribal, Federal, State, and local agencies to address issues related to climate change and sea level rise as related to shoreline management.

Policy 11AA-2:

Whatcom County should plan and prepare for the likely impacts of climate change on County-owned facilities, infrastructure, and natural resources and ensure that projects for major maintenance or replacement of utilities, roads, and other public infrastructure consider the impacts of sea-level rise in the location, design, and operation of the projects.

Policy 11AA-3:

Whatcom County should strive to increase resident and business resiliency to the anticipated impacts of climate change by implementing land use regulations based on best available science, such as sea level rise, changes in rainfall patterns, changes in flood volumes and frequencies, and changes in average and extreme temperatures.

Policy 11AA-4:

Habitat protection and restoration projects in shoreline jurisdiction should consider implications of sea-level rise and other climate change impacts to promote resiliency of habitats and species. Those that promote climate change and sea-level rise resiliency should be considered priority actions.

Comment [CES26]: New policies based on Scoping Document Topic #6a, *Develop and/or strengthen policies regarding climate change/sea level rise, including the incorporation and use of new data (as it becomes available), to review and revise, if warranted, shoreline use regulations.*

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Policy 11AA-5: Whatcom County should monitor the impacts of climate change on Whatcom County's shorelands, the shoreline master program's ability to adapt to sea level rise and other aspects of climate change at least every periodic update, and revise the shoreline master program as needed. Whatcom County should periodically assess the best available sea level rise projections and other science related to climate change within shoreline jurisdiction and incorporate them into future program updates, as relevant.

Comment [P/C27]: P/C approved 9-0-0

Policy 11AA-6: Public infrastructure—such as transportation systems, utilities, flood hazard control, and instream structures—and essential public facilities in shoreline areas should be built in a manner that accounts for increased sea level rise and storm surge, and the flooding that may accompany it.

Policy 11AA-7: Whatcom County should evaluate opportunities to protect shoreline investments and infrastructure from the impacts of climate change, as necessary and feasible. Specifically, the County should maintain shoreline protection and erosion control by:

- Facilitating the installation and maintenance of native vegetation along appropriate areas of shoreline;
- Revisiting development policies with the objective of providing additional shoreline buffer area between developed areas and the shoreline; and
- Only consider structural shoreline stabilization structures when alternative options are unavailable.

~~Chapter 23.100~~ Shoreline Use and Modification Policies and Regulations

The following shoreline use and modification policies apply to specific development activities on shorelines.

~~23.100.020~~ Shoreline Bulk Provisions – Buffers, Setbacks, Height, Open Space and Impervious Surface Coverage

~~Policy 11BB-1: A. Policies.~~ Standards for density, setbacks, height, and other provisions should ensure no net loss of shoreline ecological functions and/or processes and preserve the existing character of the shoreline consistent with the purpose of the shoreline area designation.

~~23.100.030~~ Agriculture

~~A. Policies.~~

Policy 11BB-1: ~~This program~~ The SMP recognizes the importance of agriculture in Whatcom County and supports its continued economic viability. ~~The SMP~~ This program ~~It~~ allows for ongoing agricultural

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activities and should protect agricultural lands from conflicting uses such as intensive or unrelated residential, industrial, or commercial uses, while also maintaining shoreline ecological functions and processes.

Policy 11BB-2: Agricultural uses and development in support of agricultural uses should be conducted in such a manner as to assure no net loss of shoreline ecological functions and processes and avoid substantial adverse impacts on other shoreline resources and values.

Policy 11BB-3: Conversion of agricultural uses to other uses should comply with all policies and regulations for nonagricultural uses.

~~23.100.040~~ Aquaculture

~~A. Policies:~~

Policy 11CC-1: Aquaculture is a water-dependent use and, when consistent with control of pollution, ~~and~~ avoidance of adverse impacts to the environment, and preservation of habitat for resident native species, is a preferred use of the shoreline (WAC 173-26-241(3)(b)).

Policy 11CC-2: Potential locations for aquaculture activities are relatively restricted because of specific requirements related to water quality, temperature, oxygen content, currents, adjacent land use, wind protection, commercial navigation, and salinity. The technology associated with some forms of aquaculture is still experimental and in formative states. Therefore, some latitude should be given when implementing the policies of this subsection and the regulations in of this section WCC Chapter Title 23.100 WCC; provided, that potential impacts on existing uses and shoreline ecological functions and processes should be given due consideration.

Policy 11CC-3: Preference should be given to those forms of aquaculture that involve lesser environmental and visual impacts and lesser impacts to native plant and animal species. In general, projects that require ~~no structures, submerged, structures or intertidal, or no structures~~ are preferred over those that involve substantial floating structures. Projects that involve little or no substrate modification are preferred over those that involve substantial modification. Projects that involve little or no supplemental food sources, pesticides, herbicides, or antibiotic application are preferred over those that involve such practices.

~~Policy 11-4: Community restoration projects associated with aquaculture should be reviewed and permitted in a timely manner.~~

Policy 11CC-54: Aquaculture activities should be designed, located and operated in a manner that supports long-term beneficial use of the

Comment [AP28]: Don't need, as *all* projects should be reviewed and permitted in a timely manner. Furthermore, we don't really know what a "community restoration project associated with aquaculture" is.

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shoreline and protects and maintains shoreline ecological functions and processes. Aquaculture should not be permitted where it would result in a net loss of shoreline ecological functions; adversely affect the quality or extent of habitat for native species, including eelgrass, kelp, and other macroalgae; adversely impact other habitat conservation areas; or interfere with navigation or other water-dependent uses.

Policy 11CC-65: Aquaculture that involves significant risk of cumulative adverse effects on water quality, sediment quality, benthic and pelagic organisms, and/or wild fish populations through potential contribution of antibiotic resistant bacteria, or escapement of nonnative species, or other adverse effects on ESA-listed species should not be permitted.

Policy 11CC-76: The County should actively seek substantive comment on any shoreline permit application for aquaculture from all appropriate federal, state, and local agencies; the Lummi Nation, Nooksack Tribe, and other affected tribes; and the general public regarding potential adverse impacts. Comments of nearby residents or property owners directly affected by a proposal should be considered and evaluated, especially in regard to use compatibility and aesthetics.

Policy 11CC-87: The rights of treaty tribes to aquatic resources within their usual and accustomed areas should be addressed through the permit review process. Direct coordination between the applicant/proponent and the tribe should be encouraged.

Policy 11CC-98: Consideration should be given to both the potential beneficial impacts and potential adverse impacts that aquaculture development might have on the physical environment; on other existing and approved land and water uses, including navigation; and on the aesthetic qualities of a project area.

Policy 11CC-109: Legally established aquaculture enterprises, including authorized experimental projects, should be protected from incompatible uses that may seek to locate nearby. Use or developments that have a high probability of damaging or destroying an existing aquaculture operation may be denied.

Policy 11CC-110: Experimental aquaculture projects in water-bodies should be limited in scale and should be approved for a limited period of time. Experimental aquaculture means an aquaculture activity that uses methods or technologies that are unprecedented or unproven in the state of Washington.

~~23.100.050 Boating Facilities – Marinas and Launch Ramps~~

~~Boating facilities, including marinas and launch ramp development, are subject to the following policies. Docks/Moorage structures serving four or fewer single-~~

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~~family residences users are only subject to the policies in Moorage Structures–
Docks, Piers, and Mooring Buoys.~~

~~A. Policies:~~

Policy 11DD-1: Boating facilities, including marinas and launch ramps, are water-dependent uses and should be given priority for shoreline location. Boating facilities should also contribute to public access and enjoyment of waters of the state. Shorelines particularly suitable for marinas and launch ramps are limited, and should be identified and reserved to prevent irreversible commitment for other uses having less stringent site requirements.

Policy 11DD-2: Regional needs for marina and boat launch facilities should be carefully considered in reviewing new proposals as well as in allocating shorelines for such development. Such facilities should be coordinated with park and recreation plans and, where feasible, collocated with port or other compatible water-dependent uses. Review of such facilities should be coordinated with recreation providers, including cities, adjacent counties, port districts, the Whatcom County Parks and Recreation department, the Washington State Parks and Recreation Commission, and the Washington State Department of Natural Resources to avoid unnecessary duplication and to efficiently provide recreational resources while minimizing adverse impacts to shoreline ecological functions and processes.

Policy 11DD-3: Upland boat storage is preferred over new in-water moorage. Mooring buoys are preferred over docks and piers. Boating facilities that minimize the amount of shoreline modification are preferred.

Policy 11DD-4: Boating facilities should provide physical and visual public shoreline access and provide for multiple uses, including water-related use, to the extent compatible with shoreline ecological functions and processes and adjacent shoreline use.

Policy 11DD-5: Accessory uses at marinas or launch ramps should be limited to water-oriented uses, or uses that provide physical or visual shoreline access for substantial numbers of the general public.

Policy 11DD-6: New or expanding boating facilities including marinas, launch ramps, and accessory uses should only be sited where suitable environmental conditions are present and should avoid critical saltwater habitat including kelp beds, and eelgrass beds, and spawning and holding areas for forage fish (such as herring, surf smelt and sand lance); subsistence, commercial, and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

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- 1 | Policy 11DD-7: Boating facilities should be located and designed to avoid
2 | adverse effects upon coastal, riverine, and nearshore processes
3 | such as erosion, littoral or riparian transport, and accretion, and
4 | should, where feasible, enhance degraded, scarce, and/or
5 | valuable shore features including accretion shoreforms.
- 6 | Policy 11DD-8: Launch ramps are preferred over marinas on accretion shores
7 | because associated impacts are often reversible and such
8 | structures will not normally interfere with littoral drift and
9 | accretion unless offshore defense structures or dredging are also
10 | required.
- 11 | Policy 11DD-9: Nonregulatory methods to protect, enhance, and restore
12 | shoreline ecological functions and processes and other shoreline
13 | resources should be encouraged during the design,
14 | development, and operation of boating facilities. Nonregulatory
15 | methods may include public facility and resource planning,
16 | education, voluntary protection and enhancement projects, or
17 | incentive programs.
- 18 | Policy 11DD-10: Boating facilities should be located, designed, and operated so
19 | that other appropriate water-dependent uses are not adversely
20 | affected.
- 21 | Policy 11DD-11: Location and design of boating facilities should not unduly
22 | obstruct navigable waters and should avoid adverse effects to
23 | recreational opportunities such as fishing, shellfish gathering,
24 | pleasure boating, commercial aquaculture, swimming, beach
25 | walking, picnicking, and shoreline viewing.
- 26 | Policy 11DD-12: Boating facilities should be located, designed, constructed, and
27 | maintained, and operated to avoid adverse proximity impacts
28 | such as noise, light and glare; aesthetic impacts to adjacent
29 | land uses; and impacts to public visual access to the shoreline.
- 30 | Policy 11DD-13: Live-aboards should be regulated so as to prevent adverse
31 | impacts to public health and safety.
- 32 | **~~23.100.060 Commercial Use~~**
- 33 | ~~Commercial development in shoreline areas shall be subject to the policies and~~
34 | ~~regulations of this section and Chapter 23.90 WCC.~~
- 35 | ~~A. Policies:~~
- 36 | Policy 11EE-1: In securing shoreline locations for commercial uses, preference
37 | should be given first to water-dependent commercial uses, then
38 | to water-related and water-enjoyment commercial uses.
- 39 | Policy 11EE-2: Restoration of impaired shoreline ecological functions and
40 | processes should be encouraged as part of commercial
41 | development.

Comment [CES29]: New policy added to support regulating live-aboards, per #17, "Add standards for live-aboards in marinas."

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- 1 | Policy 11EE-3: Commercial development should ensure visual compatibility with
2 | adjacent noncommercial properties.
- 3 | Policy 11EE-4: Commercial uses located in the shoreline should provide public
4 | access in accordance with constitutional or other legal
5 | limitations unless such improvements are demonstrated to be
6 | infeasible or present hazards to life and property.
- 7 | **~~23.100.070~~ Dredging**
- 8 | ~~A. Policies:~~
- 9 | Policy 11FF-1: Dredging should be permitted for water-dependent uses of
10 | economic importance to the region and/or essential public
11 | facilities only when necessary and when alternatives are
12 | infeasible or less consistent with ~~the SMP~~this program.
- 13 | Policy 11FF-2: Dredging to provide water-oriented recreation should not be
14 | permitted.
- 15 | Policy 11FF-3: Minor dredging as part of ecological restoration or enhancement,
16 | beach ~~enhancement/nourishment~~, public access, or public
17 | recreation should be permitted if consistent with ~~the SMP~~this
18 | ~~program~~.
- 19 | Policy 11FF-4: New development should be sited and designed to avoid or,
20 | where avoidance is not possible, to minimize the need for new
21 | maintenance dredging.
- 22 | Policy 11FF-5: Dredging of bottom materials for the primary purpose of
23 | obtaining material for landfill, construction, or beach
24 | ~~enhancement/nourishment~~ should not be permitted.
- 25 | Policy 11FF-6: Spoil disposal on land away from the shoreline is generally
26 | preferred over open water disposal.
- 27 | Policy 11FF-7: Long-term cooperative management programs that rely
28 | primarily on natural processes, and involve ~~land~~
29 | ~~owners/landowners~~ and applicable local, state, and federal
30 | agencies and tribes, should be pursued to prevent or minimize
31 | conditions which make dredging necessary.
- 32 | **~~23.100.080~~ Flood Control Works** **Hazard Reduction and Instream Structures**
- 33 | ~~A. Policies:~~
- 34 | Policy 11GG-1: ~~Purpose and Need:~~
- 35 | ~~a.~~ New or expanding development or uses in the shoreline,
36 | including subdivision of land, that would likely require structural
37 | flood ~~hazard reduction control~~ works within a stream, channel
38 | migration zone, or floodway should not be allowed.
- 39 | Policy 11GG-2: Flood ~~hazard reduction control~~ works and instream structures
40 | should be planned and designed to be compatible with

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appropriate multiple uses of stream resources over the long term, especially in shorelines of statewide significance.

Policy 11GG-3e: Flood hazard reduction control-works should only be allowed in the shoreline if they are necessary to protect existing development and where nonstructural flood hazard reduction measures are infeasible.

Policy 11GG-4e: Flood hazard reduction control-works to protect existing development should be permitted only when the primary use being protected is consistent with the SMP~~this program~~, and the works can be developed in a manner that is compatible with multiple use of streams and associated resources for the long term, including shoreline ecological functions, fish and wildlife management, and recreation.

~~23-100-090~~ Forest Practices

~~A.~~ Policies:

Policy 11HH-1i: Forest lands should be reserved for long-term forest management and such other uses as are compatible with the dominant primary use. Other more intensive and incompatible uses tending to impair the dominant primary use should be discouraged from locating on forest lands.

Policy 11HH-2i: Forest practices should maintain high levels of water quality, as well as surface and ground-water movement patterns.

Policy 11HH-3i: Forest practices should minimize damage to wetlands, fish and wildlife species, and habitats, especially aquatic habitats.

~~4. Extreme caution must be observed whenever chemicals are to be used along shorelines; such use should be avoided altogether if possible.~~

Policy 11HH-4i~~5~~: Forest practices should maintain or improve the quality of soils and minimize erosion.

Policy 11HH-5i~~6~~: Where slopes are extremely steep or soils are subject to sliding, rapid erosion, or high water table, special practices should be employed to minimize damage to shoreland and water features, and adjacent properties.

~~23-100-100~~ Industrial and Port Development

The following policies apply to industrial and port development in shoreline areas.

~~A.~~ Policies:

Policy 11II-1i: Shoreline sites particularly suitable for development such as deep-water harbors with access to adequate rail, highway, and utility systems should be reserved for water-dependent or water-related industrial and port development.

Comment [MD30]: Addressed by existing policy #2 in Water Quality and Quantity.

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- 1 | Policy 11III-2: In order to provide adequate shoreline for future water-
2 | dependent and water-related uses, industrial or port
3 | development at deep-water sites should be limited to those uses
4 | that produce the greatest long-term economic base. Industrial
5 | and port development that is consistent with ~~this program~~ the
6 | SMP should be protected from encroachment or interference by
7 | incompatible uses with less stringent siting requirements, such
8 | as residential or commercial uses. Mixed use development,
9 | including non-water-dependent uses, should only be allowed
10 | when they include and support water-dependent uses.
- 11 | Policy 11III-3: Regional needs for port facilities should be carefully considered
12 | in reviewing new port proposals and in allocating shorelines for
13 | such development. Such reviews or allocations should be
14 | coordinated with port districts, adjacent counties and cities, and
15 | the state. Existing, officially designated State Harbor Areas
16 | should be used for new port development to the maximum
17 | extent whenever possible.
- 18 | Policy 11III-4: Multiple use of industrial and port facilities is encouraged to limit
19 | duplicative facilities and reduce adverse impacts. Multiple use
20 | should be implemented in the following manner:
- 21 | a. Cooperative use of piers, cargo handling, storage, parking
22 | and other accessory facilities among private or public entities
23 | should be required in industrial or port facilities whenever
24 | feasible. New facilities for water-dependent uses should be
25 | allowed only after assessment of the potential for shared use
26 | of existing facilities.
- 27 | b. Industrial and port developments should provide
28 | opportunities for physical and/or visual public shoreline
29 | access in accordance with the public access policies,
30 | including recreational use of undeveloped shorelines not
31 | needed for port or industry operations; provided, that such
32 | uses are safely compatible with facility operations.
- 33 | Policy 11III-5: Industrial and port development in the shoreline should be
34 | located and designed to avoid significant adverse impacts to
35 | other shoreline uses, resources, and values, including shoreline
36 | geomorphic processes, water quality, fish and wildlife habitat,
37 | commercial aquaculture, and the aquatic food chain.
- 38 | Policy 11III-6: Restoration of impaired shoreline ecological functions and
39 | processes should be encouraged as part of industrial and port
40 | development.

41 | ~~23.100.210~~ **Cherry Point Management Area**

42 | **A. Policies:**

43 | Policy 11TT-1: **Purpose and Intent:**

Comment [CES31]: These policies amended per Council's pending draft fossil fuel amendments.

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a. ~~The purpose of the Cherry Point management area is to provide a regulatory framework that recognizes and balances the special port, industrial and natural resource needs associated with the development of this marine resource. This subsection and WCC 23.100.21040.125 (Cherry Point Management Area) identifies policies and regulations, respectively, for water-dependent industrial activities that apply in addition to specific other elements of the SMP this program as referenced herein.~~

b. ~~Washington State natural resource agencies and Whatcom County have identified certain portions of the Cherry Point management area as providing herring spawning habitat and other key habitat characteristics that warrant special consideration due to their importance to regional fisheries and other elements of the aquatic environment.~~

Policy 11JJ-1: Development of the Cherry Point major port/industrial urban growth area will accommodate uses that require marine access for marine cargo transfer, including oil and other materials. For this reason, w

a. ~~Water-dependent terminal facilities are encouraged as the preferred use in the Cherry Point management area. Due to the environmental sensitivity of the area, it is the policy of Whatcom County to limit the number of piers to one pier, in addition to those in operation or approved as of January 1, 1998.~~

b. ~~Existing legal fossil fuel refineries should be allowed to continue and maintain their operations with limited expansions subject to environmental review, greenhouse gas emission mitigation, and conformance with the Shoreline Master Program and other applicable land use designation.~~

c. ~~It is the policy of Whatcom County to limit the number of industrial piers at Cherry Point to the existing three piers in operation or approved as of January 1, 1998, taking into account the need to:~~

- ~~• Act conservatively in land use matters at Cherry Point to prevent further harm to habitat important to the Cherry Point herring stock and Southern Resident Orcas;~~
- ~~• Optimally implement the Shoreline Master Program policy regarding shorelines of statewide significance per WCC 23.40;~~
- ~~• Encourage the continued County use of best available science;~~

Comment [CES32]: Moved to the Shoreline Environment Designations, CPMA section, as they address the purpose of this environment designation.

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- Support and remain consistent with the state Department of Natural Resources' withdrawal of Cherry Point tidelands and bedlands from the general leasing program and the species recovery goals of the Cherry Point Aquatic Reserve designation and Management Plan;
- Recognize federal actions upholding treaty rights;
- Protect traditional commercial and tribal fishing; and
- Prevent conflicts with vessel shipment operations of existing refineries that could lead to catastrophic oil or fuel spills.

~~e. Whatcom County should consider participation with local, state, and federal agencies, tribal governments and other stakeholders in the development of a plan to address integrated management of the uplands and public aquatic lands within the Cherry Point management area. The development of such a plan could provide a forum and process for addressing aquatic resources by all stakeholders. Elements of the plan could be adopted as future amendments to this program as appropriate.~~

Policy 11JJ-2: Whatcom County should ensure that shoreline development applicants demonstrate conformance consistency with the State of Washington Department of Natural Resources' Cherry Point Aquatic Reserve Management Plan.

~~All development that is to be located within the Cherry Point Management Area, as defined identified in WCC 23.20.020(E) Chapter 23.110 WCC, shall be subject to the policies in this subsection and the regulations found in WCC 23.40.125 23.100.210. Development that is to be located within the Cherry Point Management Area this section, and shall not be subject to: the General Policies of this chapter; the Shoreline Use and Modification Policies of this chapter, except for those in the Cherry Point Management Area subsection; policies and the regulations found in WCC Chapter 23.930 and WCC Chapter 23.40.23.100.010 through 23.100.160 except WCC 23.40.125, nor Chapter 23.90 WCC, unless otherwise referenced in this subsection. The policies and regulations found in this subsection are applicable only within the geographic boundaries of the Cherry Point management area and do not apply elsewhere in the County. In the event that the provisions of this subsection conflict with other applicable referenced provisions of the SMP this program, the policies and regulations that are most protective of shoreline resources shall prevail.~~

Policy 11JJ-2: Water-Dependent Industrial Development. Only water-dependent facilities that serve industrial facilities should be

Comment [P/C33]: P/C Motion to change.
Passes 7-0-1-1

Comment [P/C34]: P/C Motion to delete.
Passes 8-0-1. This policy makes no sense. Other than updating the references, staff has not changed it. It basically says that any development in the CPMA only has to comply with the policies in this section of Ch. 11 and the regulations of WCC 23.40.125, and specifically says such development doesn't have to comply with any other policies or regulations. But there are many other policies and regulations that should apply, such as ecological protection, cultural resources, vegetation management, moorage facilities, etc.

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allowed in the Cherry Point management area. Industry within the major port/industrial urban growth area, as designated in the ~~County~~ Comprehensive Plan, which is not water-dependent should locate away from shoreline jurisdiction.

Policy 11JJ-3: Multiple Use Facilities. Facilities that allow for multiple use of piers, cargo handling, storage, parking and other accessory facilities are encouraged.

Policy 11JJ-4: Public Access.

a. Where appropriate, industrial and port development within the Cherry Point management area should provide public beach and shoreline access in a manner that does not cause interference with facility operations or present hazards to life and property. This may be accomplished through individual action or by joint, coordinated action with other developers and landowners, for example, by setting aside a common public access area.

b. Special emphasis should be given to providing public beach and shoreline access for recreational opportunities including but not limited to crabbing, small craft launching, surf fishing, picnicking, clamming, and beach walking.

c. Public access within the Cherry Point management area should be consistent with the Whatcom County Parks and Recreation Open Space Plan.

Policy 11JJ-5: Shoreline Ecological Functions and Processes. In recognition of the diverse and vital ecological resources in the Cherry Point management area, consideration of probable effects of all development proposals on shoreline ecological functions and processes should be assessed with the other long-term statewide interests. New port development that requires dredge and fill should not be permitted in the Cherry Point management area due to potential adverse effects on ecological functions, including fish and shellfish habitat and geohydraulic processes.

Policy 11JJ-6: Aesthetics. All development should be designed to avoid or minimize negative visual impacts on the scenic character of the area and to ensure visual compatibility with adjacent nonindustrial zoned properties.

Policy 11JJ-7: Site Development. All development should be constructed and operated in a manner that, while permitting water-dependent uses, also protects shoreline resources, their ecological functions and processes, and that incorporates the following:

a. Low impact development approaches to avoid or minimize adverse impact to topography, vegetation, water quality, fish and wildlife habitat, and other natural site conditions;

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- b. Adequate temporary and permanent management measures to control erosion and sediment impacts during construction and operation; and
- c. Adequate stormwater management facilities.

~~23.100.110~~ Landfill and Excavation

~~A. Policies:~~

Policy 11KK-1: Landfill and excavation should only be permitted to the minimum extent necessary to accommodate an approved shoreline use or development and with assurance of no net loss of shoreline ecological functions and processes. Enhancement and voluntary restoration of landforms and habitat are encouraged.

Policy 11KK-2: Landfill in water-bodies, floodways, and/or wetlands should not be permitted for creation of new uplands, unless it is part of an approved ecological restoration activity. Landfill should be permitted in limited instances to restore uplands where recent erosion has rapidly reduced upland area, to build beaches and protective berms for shore stabilization or recreation, to restore or enhance degraded shoreline ecological functions and processes, or to moderately elevate low uplands to make such uplands more suitable for purposes consistent with the SMP~~this program~~.

Policy 11KK-3: Fill should not be allowed where shore stabilization works would be required to maintain the materials placed.

Policy 11KK-4: Landfills and excavation should be located and developed so that water quality, hydrology~~ie,~~ and runoff patterns are not altered.

Policy 11KK-5: The predicted economic benefits of landfills and excavation should be weighed against long-term cumulative impacts on ecological processes and functions.

~~23.100.120~~ Mining

~~A. Policies:~~

Policy 11LL-1: Mining should not be located on shorelines where unavoidable adverse impacts on other users or resources together equal or outweigh the benefits from mining.

Policy 11LL-2: Mining should not interfere with public recreation on the shoreline.

Policy 11LL-3: Mining should be located and operated so as to provide long-term protection of water quality, fish and wildlife, and fish and wildlife habitat.

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- 1 | Policy 11LL-4: Mining, particularly surface or strip mining, should provide for
2 | timely restoration of disturbed areas to a biologically productive,
3 | semi-natural, or other useful condition through a reclamation
4 | process consistent with regulations administered by the
5 | Department of Natural Resources and other applicable county
6 | standards.
- 7 | Policy 11LL-5: Mining of marine and lake shores or accretional shoreforms,
8 | such as point bars, that have a high value for recreation or as
9 | fish or wildlife habitat should generally not be permitted.
- 10 | Policy 11LL-6: Mining should only be permitted on accretion point and channel
11 | bars where appropriate studies and detailed operation plans
12 | demonstrate that:
13 | a. Fish habitat, upland habitat and water quality will not be
14 | significantly impacted; and
15 | b. The operation will not adversely affect geohydraulic
16 | processes, channel alignment, nor increase bank erosion or
17 | flood damages.
- 18 | Policy 11LL-7: Mining operations should be located, designed, and managed so
19 | that other appropriate uses are not subjected to substantial or
20 | unnecessary adverse impacts from noise, dust, or other effects
21 | of the operation. The operator may be required to implement
22 | measures such as buffers, limited hours, or other mitigating
23 | measures for the purpose of minimizing adverse proximity
24 | impacts.

~~23-100-130 Moorage Structures – Docks, Piers and Mooring Buoys~~

~~Moorage—including docks, piers and mooring buoys—in shoreline areas are subject to the following policies. Shared moorage structures serving with more than four berths users and boat launching facilities are also subject to the policies in Boating facilities—Marinas and Launch Ramps.~~

~~A. Policies:~~

- 31 | Policy 11MM-1: Moorage associated with a single-family residence is considered
32 | a water-dependent use; provided, that it is designed and used
33 | as a facility to access watercraft, and other moorage facilities
34 | are not available or feasible. Moorage for water-related and
35 | water-enjoyment uses or shared moorage for multifamily use
36 | should be allowed as part of a mixed use development or where
37 | it provides public access.
- 38 | Policy 11MM-2: New moorage, excluding docks accessory to single-family
39 | residences, should be permitted only when the applicant/
40 | proponent has demonstrated that a specific need exists to
41 | support the intended water-dependent or public access use.
- 42 | Policy 11MM-3: As an alternative to continued proliferation of individual private
43 | moorage, mooring buoys are preferred over docks or floats.

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Shared moorage facilities are preferred over single-user moorage where feasible, especially where water use conflicts exist or are predictable. New subdivisions of more than two lots and new multifamily development of more than two dwelling units should provide shared moorage.

Policy 11MM-4:

Docks, piers and mooring buoys, including those accessory to single-family residences, should avoid locations where they will adversely impact shoreline ecological functions or processes, including currents and littoral drift, and critical saltwater habitat including kelp beds, eelgrass beds, spawning and holding areas for forage fish (such as herring, surf smelt and sandlance); subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

Comment [AP35]: Draft revision per Scoping Document, Item #8c, "Consider ways to improve protections for salmon and forage fish habitat,"

Policy 11MM-5:

Moorage should be spaced and oriented in a manner that minimizes hazards and obstructions to public navigation rights and corollary rights thereto such as, but not limited to, fishing, swimming, and pleasure boating, as well as private riparian rights of adjacent land-owners.

Policy 11MM-6:

Moorage should be restricted to the minimum size necessary to meet the needs of the proposed use. The length, width and height of piers and docks should be no greater than that required for safety and practicality for the primary use.

Comment [AP36]: Simplify to "size" for consistency with updated approach to dock standards, which include an overall square footage requirement, rather than prescriptive dimensional standards.

Policy 11MM-7:

Pile supports are preferred over fills because piles do not displace water surface and intertidal or aquatic habitat and are removable and thus more flexible in terms of long-term use patterns. Floats may be less desirable than pile structures where aquatic habitat or littoral drift are significant.

Policy 11MM-8:

The use of buoys for small craft moorage is preferred over pile or float structures because of lesser long-term impact on shore features and users; moorage buoys should be placed as close to shore as possible to minimize obstruction to navigation.

Policy 11MM-9:

Shoreline resources and water quality should be protected from overuse by boaters living on vessels (live boards). Boaters living on vessels are restricted to established marinas with facilities to address waste handling and other sanitary services.

Policy 11MM-10:

Vessels should be restricted from extended mooring on waters of the state unless authorization is obtained from the DNR and impacts to navigation and public access are mitigated.

Policy 11MM-11:

Piers and docks should be constructed of materials that will not adversely affect water quality or aquatic plants and animals in the long term.

Policy 11MM-12:

New pier and dock development should be designed so as not to interfere with lawful public access to or use of shorelines.

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Developers of new piers and shared moorage should be encouraged to provide physical or visual public access to shorelines whenever safe and compatible with the primary use and shore features.

~~23.100.140~~ Recreation

A. Policies:

Policy 11NN-1: Shoreline recreational development should be given priority for shoreline location to the extent that the use facilitates the public's ability to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline. Where appropriate, such facilities should be dispersed along the shoreline in a manner that supports more frequent recreational access and aesthetic enjoyment of the shoreline for a substantial number of people.

Policy 11NN-2: Recreational developments should facilitate appropriate use of shoreline resources while conserving them. These resources include, but are not limited to: accretion shoreforms, wetlands, soils, ground-water, surface water, native plant and animal life, and shore processes.

~~3. Recreational development requiring extensive structures, utilities and roads and/or substantial modifications of topography or vegetation removal should not be located or expanded in areas where damage to persons, property, and/or shoreline functions and processes is likely to occur.~~

Comment [AP37]: Captured in policy #8 below.

Policy 11NN-3: Recreational developments and plans should provide the regional population a varied and balanced choice of recreation experiences in appropriate locations. Public agencies and private developers should coordinate their plans and activities to provide a wide variety of recreational opportunities without needlessly duplicating facilities.

Policy 11NN-4: Trail links between shoreline parks and public access points should be encouraged for walking, horseback or bicycle riding, and other non-motorized vehicle access where appropriate. The Whatcom County Comprehensive Park and Recreation Open Space Plan should be considered in design and approval of public trail systems.

Policy 11NN-5: Access to natural character recreational areas, including but not limited to beaches and fishing streams, should be a combination of linear shoreline trails or easements and small parking or access tracts to minimize user concentration on small portions of the shoreline.

Policy 11NN-6: Recreation facilities should incorporate public education regarding shoreline ecological functions and processes, the role

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of human actions on the environment, and the importance of public involvement in shorelines management. Opportunities incorporating educational and interpretive information should be pursued in design and operation of recreation facilities and nature trails.

Policy 11NN-7: Reasonable physical or visual public access to shorelines should be provided and integrated with recreational developments in accordance with WCC ~~23.90.080~~ 23.30.070 (Public Access).

Policy 11NN-8: Recreation development should be located only where utility and road capability ~~is~~ are adequate, or may be provided without significant damage to shore features commensurate with the number and concentration of anticipated users.

Policy 11NN-9: Cooperative efforts among public and private persons toward the acquisition and/or development of suitable recreation sites or facilities should be explored to assure long-term availability of sufficient public sites to meet local recreation needs.

~~23.100.150~~ Residential

~~A. Policies:~~

Policy 1100-1: Single-family residences are designated in Chapter [90.58](#) RCW as a priority use in those limited instances when authorization is given for alterations of the natural condition of shorelines of the state.

Policy 1100-2: New residential development is encouraged to cluster dwelling units together to reduce physical and visual impacts on shorelines and to reduce utility and road costs. Planned unit developments that include common open space and recreation facilities, or a variety of dwelling sizes and types, are encouraged at suitable locations as a preferable alternative to extensive single-lot subdivisions on shorelines. Planned unit developments (Chapter [20.85](#) WCC) may also include a limited number of neighborhood commercial business uses where consistent with the applicable zoning regulations.

Policy 1100-3: Allowable density of new residential development should comply with applicable ~~Ce~~omprehensive ~~Plan~~ goals and policies, zoning restrictions, and shoreline area designation standards. The density ~~per acre~~ of development should be appropriate to local natural and cultural features.

Policy 1100-4: Structures or development for uses accessory to residential use should preserve shoreline open space, be visually and physically compatible with adjacent cultural and shoreline features, be reasonable in size and purpose, and result in no net loss of shoreline ecological functions and processes.

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Policy 1100-5: Buildings greater than 35 feet above average grade level that will obstruct the views of a substantial number of residences on areas adjoining such shorelines are limited by the SMAAet (RCW 90.58.320) to those cases where the SMPthis program does not prohibit such development and then only when overriding considerations of the public interest will be served. The SMPThis program provides opportunities for buildings greater than 35 feet in height in limited areas where consistent with development objectives and the goals and polices of this chapterprogram.

Policy 1100-6: New residential development should be planned and built in accordance with the policies and regulations in WCC 23.90.030and to minimize the need for shoreline stabilization and flood hazard reduction measures.

Comment [MD38]: Deleted for brevity as already required.

Policy 1100-7: Measures to conserve native vegetation along shorelines should be required for all residential development. Vegetation conservation may include avoidance or minimization of clearing or grading, restoration of areas of native vegetation, and/or control of invasive or nonnative vegetation.

Policy 1100-8: Whenever possible, nonregulatory methods to protect, enhance, and restore shoreline ecological functions and other shoreline resources should be encouraged for residential development. Such methods may include resource management planning, low impact development techniques, voluntary protection and enhancement projects, education, or incentive programs.

Policy 1100-9: New multiunit residential development, including subdivision of land for more than four parcels, should provide substantial shore space—recreational opportunities for development residents and the public, unless public access is infeasible due to incompatible uses, safety, impacts to shoreline ecology, or legal limitations. Developments of four or fewer units should provide private access to the shore for those living in the development (non-public).

Comment [CES39]: Amended, as all shoreline development is supposed to provide access, though it need not be public for small developments.

Policy 1100-10: Development should provide open space corridors between structures, and along site boundaries, so as to provide space for outdoor recreation, preserve views, and minimize use conflicts.

Policy 1100-11: Recreation-oriented residential development in the shoreline should be located only where substantial recreation opportunities are provided on site, and where nearby property owners and other appropriate uses will not be adversely affected.

~~23.100.160~~ Restoration and Enhancement

~~A. Policies:~~

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- 1 | Policy 11PP-1: ~~The SMP~~~~This program~~ recognizes the importance of restoration
2 of shoreline ecological functions and processes and encourages
3 cooperative restoration efforts and programs between local,
4 state, and federal public agencies, tribes, nonprofit
5 organizations, and landowners to address shorelines with
6 impaired ecological functions and/or processes.
- 7 | Policy 11PP-2: Restoration actions should restore shoreline ecological functions
8 and processes as well as shoreline features and should be
9 targeted towards meeting the needs of sensitive and/or locally
10 important plant, fish and wildlife species, ~~as well as the~~
11 biological recovery goals for early Chinook and bull trout
12 populations, and other salmonid species and populations.
- 13 | Policy 11PP-3: Restoration should be integrated with other parallel natural
14 resource management efforts such as the WRIA 1 Salmonid
15 Recovery Plan and the WRIA 1 Watershed Management Plan.
- 16 | Policy 11PP-4: Priority should be given to restoration actions that:
17 a. Create dynamic and sustainable ecosystems.
18 b. Restore connectivity between stream/river channels,
19 floodplains and hyporheic zones.
20 c. Restore natural channel-forming geomorphologic processes.
21 d. Mitigate peak flows and associated impacts caused by high
22 stormwater runoff volume.
23 e. Reduce sediment input to streams and rivers and associated
24 impacts.
25 f. Improve water quality.
26 g. Restore native vegetation and natural hydrologic functions of
27 degraded and former wetlands.
28 h. Replant native vegetation in riparian areas to restore
29 functions.
30 i. Restore nearshore ecosystem processes, such as sediment
31 transport and delivery and tidal currents that create and
32 sustain habitat.
33 j. Restore pocket estuaries that support salmon life histories,
34 including feeding and growth, refuge, osmoregulation, and
35 migration.
36 k. Address contamination along industrial shoreline regions.

37 | ~~23-100-170~~ Shoreline Stabilization

38 | ~~Shore stabilization in shoreline areas shall be subject to the policies and regulations~~
39 ~~of this section and Chapter 23.90 WCC.~~

40 | ~~A. Policies.~~

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- 1 | Policy 11QQ-1: Alternatives to structures for shore protection should be used
2 | whenever possible. Such alternatives may include no action
3 | (allow the shoreline to retreat naturally), increased building
4 | setbacks, building relocation, drainage controls, and
5 | bioengineering, including vegetative stabilization, and beach
6 | enhancement~~nourishment~~.
- 7 | Policy 11QQ-2: Single-family residences occupied prior to January 1, 1992, and
8 | their appurtenant structures should be protected against
9 | damage or loss caused by shoreline erosion; provided, that
10 | measures to protect single-family residences should be designed
11 | to minimize harm to the shoreline environment. After that date,
12 | all new single-family residences and their appurtenant
13 | structures should be built in a manner so as to not need
14 | protective measures.
- 15 | Policy 11QQ-3: New or expanded structural shore stabilization for new primary
16 | structures should be avoided. Instead, structures should be
17 | located and designed to avoid the need for future shoreline
18 | stabilization where feasible. Land subdivisions should be
19 | designed to assure that future development of the created lots
20 | will not require structural shore stabilization for reasonable
21 | development to occur.
- 22 | Policy 11QQ-3: New or expanded structural shore stabilization should only be
23 | permitted where demonstrated to be necessary to protect an
24 | existing primary structure that is in danger of loss or substantial
25 | damage, and where mitigation of impacts would not cause a net
26 | loss of shoreline ecological functions and processes.
- 27 | Policy 11QQ-4: New or expanded structural shore stabilization for enhancement,
28 | restoration, or hazardous substance remediation projects should
29 | only be allowed when nonstructural measures, vegetation
30 | planting, or on-site drainage improvements would be insufficient
31 | to achieve enhancement, restoration, or remediation objectives.
- 32 | Policy 11QQ-5: Shore stabilization on streams should be located and designed
33 | to fit the physical character and hydraulic energy potential of a
34 | specific shoreline reach, which may differ substantially from
35 | adjacent reaches.
- 36 | Policy 11QQ-6: Shore stabilization should not be permitted to unnecessarily
37 | interfere with public access to public shorelines, nor with other
38 | appropriate shoreline uses including, but not limited to,
39 | navigation, seafood harvest, or ~~private~~ recreation.
- 40 | Policy 11QQ-7: Provisions for multiple use, restoration, and/or public shore
41 | access should be incorporated into the location, design, and
42 | maintenance of shore stabilization for public or quasi-public
43 | developments whenever safely compatible with the primary
44 | purpose. Shore stabilization on publicly owned shorelines should

Comment [CES40]: Moved from Policy 11T-1 as it contained 2 different concepts.

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not be allowed to decrease long-term public use of the shoreline.

Policy 11QQ-8:

Shore stabilization should be developed in a coordinated manner among affected property owners and public agencies for a whole drift sector (net shore-drift cell) or reach where feasible, particularly those that cross jurisdictional boundaries, to address ecological and geohydraulic processes, sediment conveyance and beach management issues. Where beach erosion threatens existing development, a comprehensive program for shoreline management should be established.

Policy 11QQ-9:

In addition to conformance with the regulations in ~~this section~~the SMP, nonregulatory methods to protect, enhance, and restore shoreline ecological functions and other shoreline resources should be encouraged for shore stabilization. Nonregulatory methods may include public facility and resource planning, technical assistance, education, voluntary enhancement and restoration projects, or other incentive programs.

Policy 11QQ-10:

Shore stabilization should be located, designed, and maintained to protect and maintain shoreline ecological functions, ongoing shore processes, and the integrity of shore features. Ongoing stream, lake, or marine processes and the probable effects of proposed shore stabilization on other properties and shore features should be considered. Shore stabilization should not be developed for the purpose of filling shorelines.

Policy 11QQ-11:

Failing, harmful, unnecessary, or ineffective structures should be removed, and shoreline ecological functions and processes should be restored using nonstructural methods or less harmful long-term stabilization measures.

Policy 11QQ-12:

Structural shoreline stabilization measures should only be used when more natural, flexible, sustainable, nonstructural methods such as vegetative stabilization, beach enhancement ~~nourishment~~, and bioengineering have been determined infeasible. Alternatives for shoreline stabilization should be based on the following hierarchy of preference:

- a. No action (allow the shoreline to retreat naturally), increase building setbacks, and relocate structures.
- b. Flexible defense works constructed of natural materials including soft shore protection, bioengineering, including beach enhancement ~~nourishment~~, protective berms, or vegetative stabilization.
- c. Rigid works constructed of artificial materials such as riprap or concrete.

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Materials used for construction of shoreline stabilization should be selected for long-term durability, ease of maintenance, compatibility with local shore features, including aesthetic values, and flexibility for future uses.

Policy 11QQ-13: Larger works such as jetties, breakwaters, weirs, or groin systems should be permitted only for water-dependent uses when the benefits to the region outweigh resource losses from such works, and only where mitigated to provide no net loss of shoreline ecological functions and processes.

Policy 11QQ-14: Alternative structures, including floating, portable or submerged breakwater structures, or several smaller discontinuous structures, should be considered where physical conditions make such alternatives with less impact feasible.

~~23.100.180~~ Signs

~~A.~~ Policies:

Policy 11RR-1: Whatcom County recognizes the constitutional right for property owners to communicate using signs on their property. These policies are intended to ensure that signage within shoreline areas is consistent with the purpose and intent of the SMA Act and the SMP ~~this program~~ by addressing impacts to ecological functions, public safety, and visual aesthetics.

Policy 11RR-2: Signs should be located, designed, and maintained to be visually compatible with local shoreline scenery as seen from both land and water, especially on shorelines of statewide significance.

Policy 11 RR-3: Sign location and design should not significantly impair shoreline views.

Policy 11 RR-4: As a preferable alternative to continued proliferation of single-purpose signs, communities, districts, and/or multiuse or multitenant commercial developments are encouraged to erect single, common use gateway signs to identify and give directions to local premises and public facilities.

Policy 11 RR-5: Signs of a commercial or industrial nature should be limited to those areas or premises to which the sign messages refer.

Policy 11 RR-6: Billboards and other off-premises signs are not water-dependent, they reduce public enjoyment of or access to shorelines, and they often lower values of nearby properties. ~~Such signs should not be located on shorelines.~~ Except for approved community gateway or directional signs, such signs should not be located on shorelines.

Policy 11 RR-7: Signs near scenic vistas and viewpoints should be restricted in number, location, and height so that enjoyment of these limited and scarce areas is not impaired.

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Policy 11 RR-8: Freestanding signs should be located to avoid blocking scenic views and be located on the landward side of public transportation routes, which generally parallel the shoreline.

Policy 11 RR-9: To minimize negative visual impacts and obstructions to shoreline access and use, low profile, on-premises wall signs are strongly preferred over freestanding signs or off-premises wall signs.

Policy 11 RR-10: Signs should be designed mainly to identify the premises and nature of enterprise without unduly distracting uninterested passersby. Moving or flashing signs should be prohibited on shorelines.

~~23.100.190~~ Transportation

~~A. Policies:~~

Policy 11SS-1: New public or private transportation facilities should be located inland from the land/water interface, preferably out of the shoreline, unless:

a. Perpendicular water crossings are required for access to authorized uses consistent with the SMP~~this program~~; or

b. Facilities are primarily oriented to pedestrian and non-motorized use and provide an opportunity for a substantial number of people to enjoy shoreline areas, and are consistent with the policies and regulations for ecological protection in the General Policies section of this chapter and in WCC 23.30.010 (Ecological Protection)~~23.90.030~~, respectively.

Policy 11SS-2: Transportation facilities should be located and designed to avoid public recreation and public access areas and significant natural, historic, archaeological, or cultural sites.

Policy 11SS-3: Parking is not a preferred use in shorelines and should only be allowed to support authorized uses where no feasible alternatives exist.

Policy 11SS-4: New or expanded public transportation facility route selection and development should be coordinated with related local and state government land use and circulation planning.

Policy 11SS-5: Transportation system route planning, acquisition, and design in the shoreline should provide space wherever possible for compatible multiple uses such as utility lines, pedestrian shore access or viewpoints, or recreational trails.

Policy 11SS-6: Transportation system plans and transportation projects within shorelines should provide safe trail space for non-motorized traffic such as pedestrians, bicyclists, or equestrians. Space for such uses should be required along roads on shorelines, where

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appropriate, and should be considered when rights-of-way are being vacated or abandoned.

Policy 11SS-7:

Public access should be provided to shorelines where safe and compatible with the primary and adjacent use, or should be replaced where transportation development substantially impairs lawful public access. Viewpoints, parking, trails, and similar improvements should be considered for transportation system projects in shoreline areas, especially where a need has been identified.

Policy 11SS-8:

Public transportation routes, particularly arterial highways and railways, should be located, designed, and maintained to permit safe enjoyment of adjacent shore areas and properties by other appropriate uses such as recreation or residences. Vegetative screening or other buffering should be considered.

23.100.200 Utilities

A. Policies:

Policy 11TT-1:

New public or private utilities should be located inland from the land/water interface, preferably out of the shoreline jurisdiction, unless:

- a. Perpendicular water crossings are unavoidable; or
- b. Utilities are required for authorized shoreline uses consistent with ~~the SMP~~ this program.

Policy 11TT-2:

Utilities should be located and designed to avoid public recreation and public access areas and significant natural, historic, archaeological, or cultural resources.

Policy 11TT-3:

Utilities should be located, designed, constructed, and operated to result in no net loss of shoreline ecological functions and processes with appropriate mitigation as provided in 23.30.010 (Ecological Protection) ~~WCC 23.90.030~~.

Policy 11TT-4:

All utility development should be consistent ~~with~~ and coordinated with all local government and state planning, including comprehensive plans and single purpose plans to meet the needs of future populations in areas planned to accommodate growth. Site planning and rights-of-way for utility development should provide for compatible multiple uses such as shore access, trails, and recreation or other appropriate use whenever possible; utility right-of-way acquisition should also be coordinated with transportation and recreation planning.

Policy 11TT-5:

Utilities should be located in existing rights-of-way and corridors whenever possible.

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- 1 | Policy 11TT-6: Utilities serving new development should be located
2 | underground, wherever possible.
- 3 | Policy 11TT-7: Development of pipelines and cables on aquatic lands and
4 | tidelands, particularly those running roughly parallel to the
5 | shoreline, and development of facilities that may require
6 | periodic maintenance ~~which—that~~ would disrupt shoreline
7 | ecological functions should be discouraged except where no
8 | other feasible alternative exists. When permitted, provisions
9 | shall assure that the facilities do not result in a net loss of
10 | shoreline ecological functions or significant impacts to other
11 | shoreline resources and values.
- 12 | Policy 11TT-8: Given the different scales of regional, local, and accessory
13 | utilities and their potential impacts, the County may establish
14 | different regulations regarding each.

Comment [CES41]: New policy to allow for different regulations regarding the different types of utilities in support of Scope issue #7b, "Add definitions for regional, local, and accessory utilities."

Proposed Amendment to Chapter 8 of the Comprehensive Plan

Marine Resource Lands Working Group's Recommendation

Note: This text is shown as proposed to accomplish Scoping Report issue #21a: Consider adding a Marine Resource Lands policy section as developed by the Marine Resources Committee.

**Chapter Eight
Resource Lands**

Marine Resource Lands

Introduction

Purpose

Marine resource lands, for the purpose of this plan, are defined as those marine areas waterward of the ordinary high water mark, together with their underlying lands and their water column, within the jurisdiction of the Whatcom County Shoreline Management Program (WCC Title 23). Marine resource lands have the physical conditions and habitat required to generate and maintain fisheries of all types, including the commercial and recreational harvest of finfish, shellfish, algae, and other invertebrates including but not limited to mollusks, crab, and shrimp, etc. This section is intended to guide Whatcom County in the conservation of functioning marine resource lands of long-term commercial, ecological, cultural, and recreational significance, and to ensure that all water-dependent, water-related, and water-enjoyment uses requiring use or access to marine resource lands thrive in the years to come.

GMA Requirements

Goal 8 of the GMA (RCW 36.70A.020) guides the County to ***"Maintain and enhance natural resource based industries, including productive timber, agricultural, and fisheries industries."*** While the GMA does not specifically require the designation of marine resource lands that support aquatic-based uses and industries, functioning marine resource lands are so intrinsically necessary for the creation and sustainability of historical fish and wildlife production that Whatcom County wishes to acknowledge them here.

Process

Per County Council direction, staff convened a working group comprised of members of the Marine Resource Committee, the Shellfish Protection Advisory Committee, and other local marine land experts. This working group developed a draft of this section of the Comprehensive Plan, as well as drafts of the goals and policies contained herein. The draft was then presented to the full membership of the Marine Resource Committee and Shellfish Protection Advisory Committees for review and recommendation to the County Planning Commission and Council.

Background Summary

The marine resource lands of Whatcom County have historically been one of the most important natural resources in the region. For thousands of years the shores of Whatcom County provided an important shellfish resource, sustaining our local tribes. More recently the tidelands of Drayton Harbor supported one of the earlier commercial oyster-farming businesses in the Salish Sea. The shore and nearshore lands of the County provided spawning, rearing, and forage areas for a diverse array of finfish and shellfish species which together formed an incredible food web for ancestral tribes and early commercial fisheries. The County's marine resource lands are located along the coastal areas bordering the Salish Sea fed by the rivers, streams, and lakes that drain the upland areas of western Whatcom County. Marine resource lands include more than 130 miles of marine shoreline.

Marine resource lands in the area of Cherry Point are designated in the Shoreline Management Program as the Cherry Point Management Area to support adjacent Heavy Impact Industrial (HII) zoned industrial uses that require deep water access, such as the two existing refineries and an aluminum smelter. The harbor area and waterways in Bellingham Bay are designated for preservation of commerce and navigation along the Bellingham shoreline. The tidelands of Drayton Harbor are designated to support a small commercial wharf, marinas, residential shoreline development, shellfish production, and natural areas.

The majority of marine resource lands in Whatcom County are owned by the State of Washington (managed by Department of Natural Resources [DNR]), the Lummi Nation, and the Port of Bellingham (via a Port Management Agreement with DNR). These include many of the tidelands and subtidal lands in the County. Marine resource landowners also include some private entities that were sold tidelands prior to 1971, and who manage their marine resource lands for a variety of uses, including recreational, commercial, and industrial.

Historically, marine resource lands have been managed for natural and farmed shellfish production and harvest, fishing, transportation, utility corridors (oil/gas/natural gas pipelines; sewer and stormwater outfall pipes; communication lines (phone/fiber optic); power (electric) lines, and commercial, recreational and subsistence/cultural fishing and food gathering. Historic uses also included commercial and industrial uses, marinas (Bellingham, Blaine), municipal garbage dumps, public parks, etc.

With a growing population, there is increasing interest in improving public access to marine resource lands through the addition of boat ramps and access points for motor, wind, and human-powered craft. Over the last 20 years the desire to harvest more diverse aquatic resources, particularly from tidelands, has driven a number of significant efforts to improve water quality as well as innovative culturing techniques such as intertidal geoduck seeding, nori farming, etc.

Conservation efforts have resulted in protection of several areas including the Cherry Point Aquatic Reserve and two areas withdrawn from leasing in Bellingham Bay. These areas are valuable due to their high productivity of aquatic life that contributes to the economy and greater ecosystem of Whatcom County. Twenty years of effort and millions of dollars in public investment have kept Drayton Harbor

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85 a viable commercial and recreational shellfish growing area for future generations
86 to enjoy.

87 Marine resource lands provide a huge economic benefit to the County, and the
88 health of our stream, river, and estuarine environments and marine resource lands
89 are the foundation of a critical tribal and non-tribal finfish and shellfish industry. In
90 2006, non-tribal commercial fish landings from Washington fisheries totaled nearly
91 109.4 million pounds, generating \$65.1-million in ex-vessel value (i.e., the price
92 received by commercial fishers for fish). Whatcom County was the State's second-
93 largest commercial port area that year (after Grays Harbor County), with an ex-
94 vessel value of commercial fish landings of more than \$13.5-million, accounting for
95 nearly 21% of the total value of landings from Washington fisheries. Additionally,
96 the North Puget Sound Region—which the Washington Department of Fish and
97 Wildlife defines as including San Juan, Skagit, Snohomish and Whatcom counties—
98 is also the most popular location for recreational shellfishing in the State. In 2006,
99 the combined recreational shellfish catch in those four counties included more than
100 3.3-million pounds of Dungeness crab, 23,520 pounds of shrimp, 93,038 pounds of
101 clams, and more than 19,000 individual oysters.¹ In 2016, the marine trades
102 provided 6,033 jobs, or 7% of the County's workforce.²

103 Whatcom County marine shorelines continue to provide income to over 250 Lummi
104 Nation registered shellfish harvesters. Many other Lummi and Nooksack tribal
105 members depend on finfish and crab harvest for a substantial part of their yearly
106 family income. The Lummi Nation shellfish enterprise is highly productive and
107 provides clam, oyster, and geoduck seed to a large part of the northwest shellfish
108 industry. To the extent that the environmental health of these lands impacts the
109 ability of Tribal Nations to practice fish and wildlife harvests and conduct ceremonial
110 activities for their cultural, economic, and spiritual welfare, protection of these
111 lands is a Treaty trust resource supporting Treaty reserved rights to take fish.

112 Other direct and indirect benefits to the County are even more substantial given the
113 multiplier effect from marina-related boat works, electronics, fuel and supplies,
114 charter and whale watching businesses, the Alaska Ferry service, sporting goods,
115 kayaking, rowing, sailing, wind surfing, power boating, and all the sales, repair,
116 maintenance, and provisioning that goes with these type of activities. Whatcom
117 County's marine resource areas are not only an international destination for water-
118 dependent, water-related, and water-enjoyment activities, such as bird and wildlife
119 watching, sailing and cruising, fishing and gathering, but they are also a gateway to
120 the San Juan Islands, Gulf Islands, the greater Salish Sea environs, and
121 international waters. Whatcom County's marine resource lands are a renewable and
122 sustainable economic driver that will serve this region well into the future.

¹ Whatcom County, March 2015. *Whatcom County Comprehensive Economic Development Strategy*, prepared by the Whatcom Council of Governments.

² Center of Economic and Business Research, Western Washington University, July 2016. *Whatcom County Marine Trades Impacts*.

Issues, Goals, and Policies

The following goals and policies apply to marine resource lands and address the issues of conserving productive aquatic land and meeting the goals of the Growth Management Act.

Marine Resource Land Base

Tidelands, marine waters, major lakes, and navigable rivers were owned by the State of Washington at the time of statehood unless reserved for other uses such as federal facilities or Indian reservations. Between 1889 and 1971, the State sold many of its tidelands to railroads, timber companies, and shellfish growers as a way to finance the State. As a result, the State owns only about 30% of the tidelands. The bulk of tidelands and many shoreland areas are owned or managed by ports, industries, tribes, and private property owners. The State retains ownership of most all of the subtidal lands which were not sold.

Since their adoption, the marine resource land base in Washington State and in Whatcom County has largely been protected by the Washington State Shoreline Management Act, as well as Whatcom County's Shoreline Management Program (SMP), Critical Areas Ordinance, and other land use regulations such as stormwater, land disturbance, zoning, and other regulations.

Historically, shoreline modification, including filling, hardening, and diking of many natural shorelines has resulted in a significant reduction in acreage of functioning marine resource lands in many areas of the County. These modifications came as a result of transportation improvements (roads, railroads, barge landings, and ferry terminals), utilities (electrical, communications, sewer, stormwater, etc.), hydropower, water-dependent uses (marinas, fish processing, ship yards), non-water dependent uses (large industrial facilities), flood control efforts, residential development (including bulkheading, armoring,³ and docks), and parks.

The Washington State Legislature passed the State Shoreline Management Act (SMA) in June 1971. Under the SMA, each county and city is required to adopt and administer a local shoreline management plan to carry out the provisions of the Act. The Whatcom County Shoreline Management Program (SMP) is the document that implements the goals and policies of the SMA at the local level. The SMP was originally adopted by the County Council in May 1976 in accordance with the SMA and the shoreline guidelines issued by the Washington Department of Ecology. The SMP is implemented in coordination with other chapters of the Comprehensive Plan and the Whatcom County Code to protect and manage shorelines throughout the county. It is important to note that Whatcom County and Ecology share joint authority and responsibility for the administration and enforcement of the SMP. In addition, numerous other local, state and federal regulations, permits, and approvals apply to development or use in, on or above the County's marine resource lands. Some of the most common permits and approvals include:

³ Since adoption of the SMP, shoreline armoring, filling, and bulkheading is only allowed for the purpose of protecting existing structures.

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Agency	Permit(s)
<u>Whatcom County</u>	<ul style="list-style-type: none"> • <u>Shoreline statement of exemption</u> • <u>Substantial development permit</u> • <u>Shoreline conditional use permit</u> • <u>Shoreline variance</u> • <u>State Environmental Policy Act (SEPA) determination</u>
<u>Washington Department of Ecology</u>	<ul style="list-style-type: none"> • <u>Clean Water Act Section 401 Water Quality Certification</u> • <u>Coastal Zone Management Consistency Determination</u>
<u>Washington Department of Fish and Wildlife</u>	<ul style="list-style-type: none"> • <u>Hydraulic project approval (HPA)</u>
<u>Washington Department of Natural Resources</u>	<ul style="list-style-type: none"> • <u>Aquatic use authorization</u> • <u>Aquatic lands lease agreements</u>
<u>U.S. Army Corps of Engineers</u>	<ul style="list-style-type: none"> • <u>Clean Water Action Section 404 Permit</u> • <u>Rivers and Harbors Act Section 10 Permit</u>

Goal 8T: Conserve and enhance Whatcom County's marine land base for the long-term and sustainable use and operation of water-dependent, water-related and water-enjoyment activities.

Policy 8T-1: Coordinate with public agencies, tribal governments, landowners, and private organizations to protect and maintain an appropriate, productive, and sustainable marine resource land base adequate to support marine-dependent commercial, industrial, recreational, and cultural needs.

Aquaculture, Fishing, and other Marine Resource Lands Activities

Goal 8U: Support measures to increase the viability and sustainability of Whatcom County's aquatic biodiversity and production.

Policy 8U-1: Help improve the efficiency, and effectiveness, and flexibility of environmental regulations affecting marine resource lands in order to support environmental protection and improve predictability.

Policy 8U-2: ~~Consider~~ Developing a range of non-regulatory programs, options, and incentives that owners of marine resource lands can employ to meet or exceed County environmental goals.

Policy 8U-3: Support the efforts of people in Whatcom County to operate in a long-term, sustainable manner as part of a stable, broad-based economy.

Policy 8U-4: Work cooperatively with the Washington State Departments of Natural Resources, Ecology, and Fish and Wildlife to protect productive and appropriate use of State marine resource lands within Whatcom County.

Comment [P/C1]: P/C moved to amend; passed 8-0-1

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Policy 8U-5 Continue cooperation and funding for a comprehensive Pollution Identification and Correction (PIC) program as needed to reduce bacterial pollution to levels that meet National Shellfish Sanitation Program Growing waters criteria to allow reopening of closed shellfish beds, and to maintain the operation of those beds in a commercially viable manner.

Reducing Land Use Impacts

Different land owners have different goals for their property and employ different practices when using it, whether it be for their business, home, recreation, or personal enjoyment. But oft times, the practices one property owner employs can have detrimental effects on another property owner's use or enjoyment of their property, or the public when using public lands, which can lead to conflict amongst users. One of the most cited is how poorly managed agriculture or failing septic systems can cause bacterial pollution of rivers and streams, causing closure of important shellfish production areas. Other adverse upstream inputs include, but are not limited to, excess nutrients, heavy metals, and aromatic hydrocarbons. But there have been other such actions as well, such as piers placed in fish habitat, use of pesticides in shellfish farming, loading/unloading practices, etc. However, many such users are employing new practices and technologies to alleviate such impacts, yet the public many not be aware. Improved communication and education between these groups would be beneficial for each to understand what the other is doing, how their actions affect one another, and how they plan to avoid such impacts.

Goal 8V: Aim to reduce land use conflicts between Whatcom County's Marine Resource Lands operations and upland property owners.

Policy 8V-1: Support improved communication and understanding between aquatic land landowners and the public through such mechanisms as community forums and educational programs.

Policy 8V-2: Work cooperatively with local, State, Federal and Tribal agencies, adjacent upland property owners, and the general public, as applicable, to address community concerns and land use conflicts that may affect the productivity of marine resource lands.

Policy 8V-3: Continue to implement land use, building, and transportation planning policies, regulations, and practices that help minimize adverse water quality inputs into waterbodies.

Policy 8V-4 Support and participate in education efforts and programs that emphasize the importance of and promote the benefits of marine resource lands.

Fish and Wildlife

Land use practices on marine resource lands can impact tidelands and other shallow and deepwater habitats that are important to a wide variety fish and wildlife.

Comment [P/C2]: P/C moved to delete. Passed 8-0

Comment [P/C3]: P/C moved to amend. Passes 8-0-1

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Goal 8W: Ensure that operations associated with marine resource lands strive to avoid adverse impacts to the survival and habitat of aquatic species, particularly to threatened and endangered fish and wildlife species and shellfish resources.

Administration and Regulation

Goal 8X: Recognize the Shoreline Management Program (WCC Title 23) and Zoning Code (WCC Title 20) as the primary regulations used to implement this section.

Policy 8X-1: Pursuant to RCW 36.70A.480 and Comprehensive Plan Policy 10B-8, the Whatcom County Shoreline Management Program is an element of this Comprehensive Plan, and the goals and policies therein are recognized as additional goals and policies of this section.

Policy 8X-2: Those coastal aquatic lands waterward of the ordinary high water mark are hereby designated as Marine Resource Lands, as shown on Map 8-5.

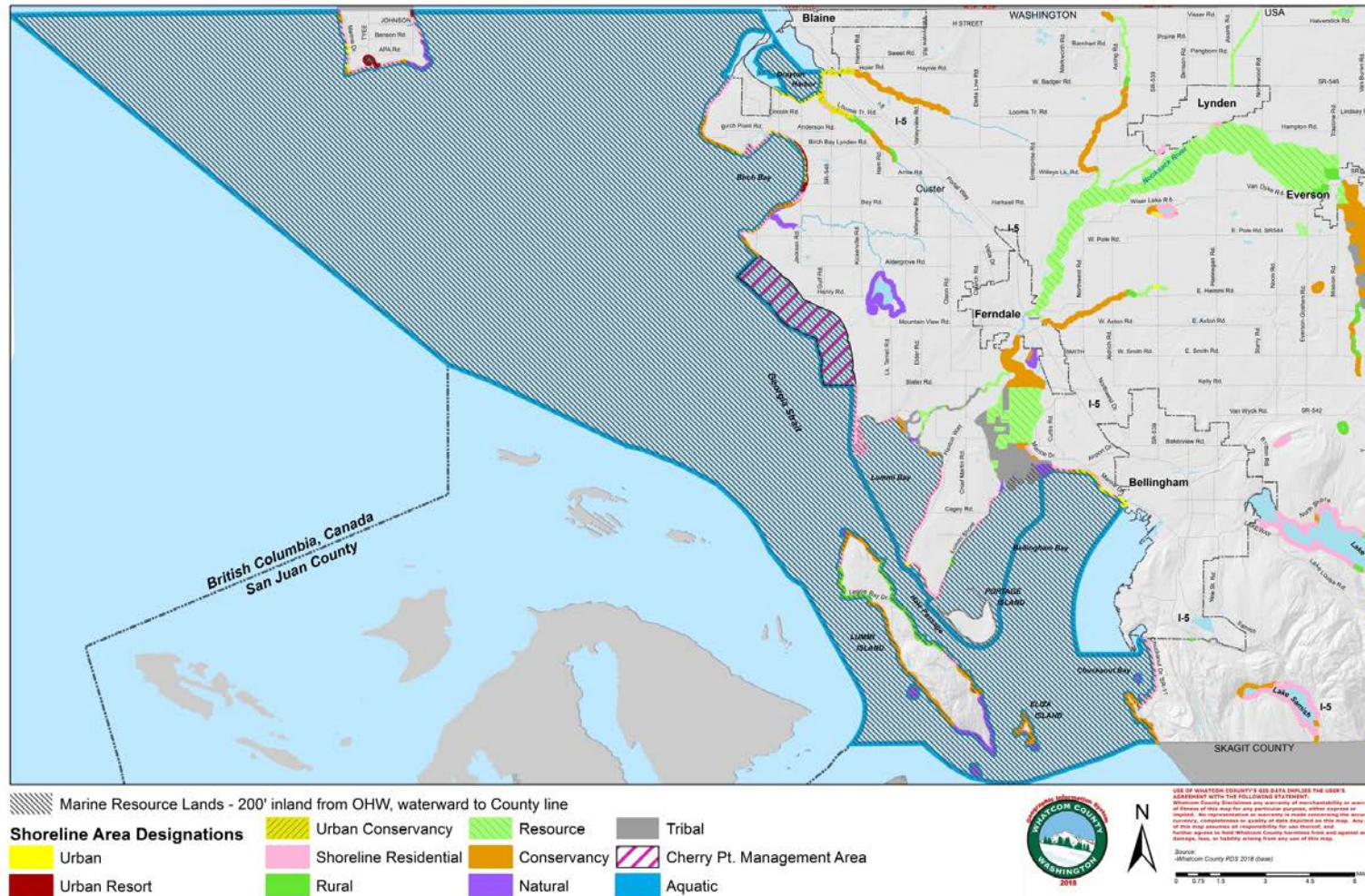
Policy 8X-3 Regulate land use on Marine Resource Lands within the County through the Shoreline Management Program, Zoning Code, and other appropriate means.

Policy 8X-4 When updating the Shoreline Management Program, consider new or amended policies to further these goals.

...

Whatcom County | Comprehensive Plan

Map 8-5 Designation of Marine Resource Lands



1

2

Planning Commission Approved Draft with
Department of Ecology Required &
Recommended Amendments, October 29,
2021

Exhibit D: Proposed Amendments to WCC Title 23

Shoreline Management
Program Periodic Update
2020

Whatcom County Planning and Development
Services

**Planning Commission Approved Draft with Department of Ecology
Required & Recommended Amendments**

SMP Update – Title 23 Amendments

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Title 23 – Shoreline Management Program

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Chapter 23.10-05 ~~Purpose and Intent~~ General Provisions

~~23.1005.010~~ Authority.

Authority for enactment and administration of this program is the Shoreline Management Act of 1971, Chapter 90.58 RCW, also referred to herein as “the Act,” and the Washington Administrative Code 173-27 and 173-26.

~~23.1005.020~~ Purpose and Intent.

As provided in the Whatcom County Comprehensive Plan, Chapter 11 (Shorelines), Whatcom County’s shorelines provide valuable habitat for fish and wildlife, economic diversity, and recreational opportunities used by residents of all ages. Shorelines play an important role in enhancing the quality of life for our county’s citizens. Therefore, the purpose of the master program is to guide the future development of the County’s shorelines in a manner consistent with the Shoreline Management Act of 1971 (hereinafter referred to as the “Act”). The Act and this program, in conjunction with other County land use regulations, comprise the basic state and County law regulating use of shorelines in the county.

~~The purposes of this program are:~~

- ~~A. To promote the public health, safety, and general welfare of the community by providing long range, comprehensive policies and effective, reasonable regulations for development and use of Whatcom County shorelines; and~~
- ~~B. To manage shorelines in a positive, effective, and equitable manner; and~~
- ~~C. To further assume and carry out the responsibilities established by the Act for Whatcom County, and to adopt and foster the following policy contained in RCW 90.58.020 for shorelines of the state:~~
- ~~D. It is the policy of the State to provide for the management of the shorelines of the State by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the State and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto...~~

~~In the implementation of this policy the public’s opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the State shall be preserved to the greatest extent feasible consistent with the overall best interest of the State and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State’s shoreline. Alterations of the natural condition of the shorelines of the State, in those limited instances when authorized, shall be given priority for single family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the State, industrial and commercial developments which are particularly dependent on their location on or use of~~

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the shorelines of the State and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the State...

Permitted uses in the shorelines of the State shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

Comment [CES1]: Moved to CompPlan.

23.10.030 Governing principles.

Comment [MD2]: Moved to CompPlan.

The following principles along with the policy statements of RCW 90.58.020 establish basic concepts that underpin the goals, policies and regulations of this program:

A. Any inconsistencies between this program and the Act must be resolved in accordance with the Act.

B. The policies of this program may be achieved by diverse means, one of which is regulation. Other means, authorized by the Act, include but are not limited to: acquisition of lands and/or easements by purchase or gift, incentive programs, and implementation of capital facility and/or nonstructural programs.

C. Protecting the shoreline environment is an essential statewide policy goal, consistent with other policy goals. Permitted and/or exempt development, actions taken prior to the Act's adoption, and/or unregulated activities can impair shoreline ecological processes and functions. This program protects shoreline ecology from such impairments in the following ways:

1. By using a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by shorelines.

2. By including policies and regulations that require mitigation of significant adverse impacts in a manner that ensures no net loss of shoreline ecological functions. The required mitigation shall include avoidance, minimization, and compensation of impacts in accordance with the policies and regulations for mitigation sequencing in WCC 23.90.030 and the Whatcom County critical areas ordinance (Chapter 16.16 WCC). This program and any future amendment hereto shall ensure no net loss of shoreline ecological functions and processes on a programmatic basis in accordance with the baseline functions present as of the date of adoption of this program, February 27, 2007.

3. By including policies and regulations to address cumulative impacts, including ensuring that the cumulative effect of exempt development will not cause a net loss of shoreline ecological functions, and by fairly allocating the burden of addressing such impacts among development opportunities.

4. By including regulations and regulatory incentives designed to protect shoreline ecological functions, and restore impaired ecological functions where such opportunities have been identified, consistent with the Shoreline Management Program Restoration Plan developed by Whatcom County.

D. Regulation of private property to implement program goals such as public access and protection of ecological functions and processes must be consistent with all relevant constitutional and other legal limitations. These include, but are not limited to, civil rights guaranteed by the U.S. and state

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Constitutions, recent federal and state case law, and state statutes, such as RCW 34.05.328 and 43.21C.060 and Chapter 82.02 RCW.

E. Regulatory or administrative actions contained herein must be implemented consistent with the public trust doctrine and other applicable legal principles as appropriate and must not unconstitutionally infringe on private property rights or result in an unconstitutional taking of private property.

F. The regulatory provisions of this program are limited to shorelines of the state, whereas the planning functions of this program may extend beyond the designated shoreline boundaries.

G. The policies and regulations established by the program must be integrated and coordinated with those policies and rules of the Whatcom County Comprehensive Plan and development regulations adopted under the Growth Management Act (GMA) and RCW 34.05.328.

H. Consistent with the policy and use preferences of RCW 90.58.020, Whatcom County should balance the various policy goals of this program giving consideration to other relevant local, state, and federal regulatory and non-regulatory programs.

23.10.04005.030 Title.

This title, taken together with Chapter 11 (Shorelines) of the Whatcom County Comprehensive Plan, shall be known and may be cited as “The Whatcom County Shoreline Management Program.” Herein, this title together with Chapter 11 of the Comprehensive Plan may be referred to as the “SMP” or the “program.”

23.10.050 Short title.

This title may be referred to herein as the “SMP,” or the “program.”

23.10.06005.040 Relationship to the Comprehensive Plan and other Federal, State, and County Codes and Regulations

A. Consistent with RCW 36.70A.480, the goals and policies of this program approved under Chapter 90.58 RCW are included as Chapter 11 (Shorelines) of the County’s Comprehensive Plan. All regulatory elements of this program shall be considered a part of the County’s development regulations.

B. Uses, developments, and activities regulated by this program may be independently subject to the Whatcom County Comprehensive Plan, the Whatcom County Code (WCC), the Washington State Environmental Policy Act, and various other federal, state, and county laws.

C. Obtaining a shoreline permit or statement of exemption for a development or use does not excuse the applicant/proponent from complying with any other local, tribal, state, regional, or federal statutes or regulations applicable to such development or use. The responsibility for determining applicable statutes and regulations and complying with the same rests with the applicant/proponent or responsible person carrying out the use or development in question. The applicant must comply with all applicable laws prior to commencing any uses, development, or activity.

D. Should a conflict occur between the provisions of this program or between this program and the laws, regulations, codes, or rules promulgated by Whatcom County or any other authority having

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jurisdiction within Whatcom County, the more restrictive requirements shall apply, except when constrained by federal or state law, or where specifically provided otherwise in this program.

E. Relationship to other County regulations.

1. Incorporation of the Whatcom County critical areas regulations, WCC Chapter 16.16, is addressed in WCC 23.05.065 (Critical Areas).

4-2. The permitting procedures necessary for implementing this program are found in WCC Chapter 22 (Land Use and Development).

2-a. In the case of development subject to the shoreline permit requirement of this program, the County Building Official shall not issue a building permit for such development until a shoreline permit has been granted; provided, that any permit issued by the Building Official for such development shall be subject to the same terms and conditions that apply to the shoreline permit. All shoreline permits shall be obtained prior to issuance of a building permit; provided, that any permit issued by the Building Official for such development shall be subject to the same terms and conditions that apply to the shoreline permit.

3-b. In the case of development subject to regulations of this program but exempt from the shoreline substantial development permit requirement, any Arequired statement of exemption shall be obtained prior to issuance of the building permit; provided, that for single-family residences, review for compliance with this Title may be completed as part of a building permit or non-shoreline permit. reviewed and signed off by the administrator may substitute for a written statement of exemption. A record of review documenting compliance with bulk and dimensional standards as well as policies and regulations of this program shall be included in the permit review. Conditions of approval for compliance with this Title shall be added to such permit. The conditions of approval shall be enforced with the provisions of this Title. Section 23.10.160 (Violations, Enforcement, and Penalties). The Building Official shall attach and enforce conditions to the building permit as required by applicable regulations of this program pursuant to RCW 90.58.140(1).

a-c. In the case of zoning conditional use permits and/or variances, Project permits are subject to consolidated review pursuant to Chapter 22.05 (Land Use and Development). Required by WCC Title 20 for development that is also within shorelines, the County designated decision maker for such permits shall document compliance with bulk and dimensional standards as well as the policies and regulations of this program in consideration of recommendations from the administrator. The decision maker and shall attach conditions to such permits and variances approvals as required to make such development consistent with this program.

4. In the case of land divisions, such as short subdivisions, long plats, and planned unit developments that require County approval, the decision maker shall document compliance with bulk and dimensional standards as well as policies and regulations of this program and attach appropriate conditions and/or mitigating measures to such approvals to ensure the design, development activities and future use associated with such land division(s) are consistent with this program.

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Comment [PDS3]: Simplified

Comment [PDS4]: Simplified.

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Comment [CES5]: Don't need; subsection (c) amended to include all permits, including land division.

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- 5-3. Other local ordinances that may be applicable to shoreline development or use include, but are not limited to:
- Building, plumbing, mechanical, and fire codes.
 - Boating and swimming, WCC Title 11.
 - On-site sewage system regulations, WCC Chapter 24.05.
 - Solid waste rules and regulations, WCC Chapter 24.06.
 - Zoning, WCC Title 20.
 - Land division regulations, WCC Title 21.
 - Development standards.

F. Relationship to other state, tribal, and federal regulations.

- Where this program makes reference to any RCW, WAC, or other state or federal law or regulation, the most recent amendment or current edition shall apply.
- This program shall be applied consistent with all federal, state, and local laws affecting tribal rights.
- The rights of treaty tribes to resources within their usual and accustomed areas shall be accommodated through the notification and comment provisions of the permit review process. Tribal treaty rights may be addressed through specific permit conditions. Direct coordination between tribes and the applicant/proponent is encouraged.
- Coastal Zone Management Act consistency reviews for sites within federal jurisdiction shall apply the shoreline environment designation criteria of Chapter 11 (Shorelines) of the Comprehensive Plan that most closely correspond to the project site in order to determine applicable program policies.
- ~~Obtaining a shoreline permit or statement of exemption for a development or use does not excuse the applicant/proponent from complying with any other local, tribal, state, regional, or federal statutes or regulations applicable to such development or use.~~
- ~~At the time of application or initial inquiry, the administrator shall inform the applicant/proponent of other such statutes and regulations relating to shoreline issues that may be applicable to the project to the extent that the administrator is aware of such statutes. However, the final responsibility for determining applicable statutes and regulations and complying with the same rests with the applicant/proponent or responsible person carrying out the use or development in question.~~
- ~~Stipulated Judgment No. 93-2-02447-6 between Governor's Point Development Company and Whatcom County, the state of Washington, and the Department of Ecology is incorporated by reference into Whatcom County's shoreline management program. A copy of the judgment is on file with the Whatcom County Planning and Development Services department.~~

23.1005.065 Critical Areas.

- A. The Whatcom County critical areas ordinance regulations (CAO), WCC Chapter 16.16 (Ordinance No. ~~X2017-077~~, dated ~~XDecember 5, 2017~~), ~~is~~ are hereby adopted in whole as a part of this program, except that the provisions of WCC 16.16.270 (Reasonable Use

Comment [RCE6]: Moved from 23.60.080 (Notice of Application)

Comment [CES7]: Covered elsewhere.

Comment [CES8]: No longer needed as it no longer applies.

Comment [CES9]: To do: Will need to update this to the ordinance and date of the CAO we're amending as part of this update.

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Exceptions), 16.16.275 (Nonconforming Uses, Structures, and Lots), ~~and 16.16.285 (Penalties and Enforcement)~~ and as specifically excluded elsewhere within this Title shall not apply within shoreline jurisdiction. All references to the critical areas ordinance (CAO), WCC Chapter 16.16, are for this specific version.

~~except that the permit, nonconforming use, appeal and enforcement provisions of the critical areas ordinance (WCC 16.16.270 through 16.16.285) shall not apply within shoreline jurisdiction. All references to the critical areas ordinance (CAO), Chapter 16.16 WCC, are for this specific version.~~

B. The adopted provisions of WCC Chapter 16.16 (Critical Areas) shall apply to any use, alteration or development within shoreline jurisdiction whether or not a shoreline permit or statement of exemption is required.

~~Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered, or land divided, without full compliance with WCC Chapter 16.16 and this program.~~

23.1005.1240 Program Effects on Property Values.

A. As provided for in RCW 90.58.290, the restrictions imposed upon use of real property through implementation of policies and regulations of the Act and this program shall be duly considered by the County Assessor and the County Board of Equalization in establishing the fair market value of such properties.

B. Designation of private property as a natural or conservancy shoreline ~~area~~ environment pursuant to WCC Chapter 23.230 (Shoreline Jurisdiction and Area Environment Designations) shall qualify the property as meeting the definition of “open space land” under the Open Space Taxation Act of 1970, as amended (RCW 84.34.020(1)) and shall qualify such land for application for open space taxation in accordance with RCW 84.34.037 and WCC Chapter 3.28 (Open Space Land Classification).

23.1005.1350 Property Rights.

A. Regulation of private property to implement program goals, such as public access and protection of ecological functions and processes, must be consistent with all relevant constitutional and other legal limitations. These include, but are not limited to, the protections afforded by the federal and state constitutions, and federal, state, and local laws.

~~A.B. Decisions on shoreline permits and/or approvals shall recognize all relevant constitutional and other legal limitations on the regulation of private property. Findings~~ In issuing shoreline permits or statements of exemptions, the decision maker shall assure that conditions imposed relate to the governmental authority and responsibility to protect the public health, safety, and welfare, are consistent with the purposes of the Act, and are roughly proportional to the expected impact.

~~B.C.~~ This program does not alter existing law on access to or trespass on private property and does not give the general public any right to enter private property without the owner’s permission.

~~C.D.~~ Consistent with Whatcom County’s high standard of staff conduct, County staff shall observe all applicable federal, ~~and state, and County~~ laws regarding entry onto privately owned property.

Comment [DOE-Req10]: Required Change – Whatcom County is concurrently updating its CAO regulations along with this Shoreline Master Program (SMP) amendment. The final adopting ordinance is required in the provision once known.

The added language clarifies that this provision does not represent an exhaustive list of CAO provisions that do not apply within the context of the SMP. There are numerous other sections of the CAO that conflict with statutory and rule requirements related to shoreline permit processing such as 16.16.230 (Activities Allowed without Notification), 16.16.235 (Activities Allowed with Notification) and 16.16.275 (Variances). These sections contain language either requiring SMP review or excluding their applicability within shoreline jurisdiction.

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~~23.10.070 Liberal construction.~~

~~As provided for in RCW 90.58.900, the Act is exempted from the rule of strict construction; the Act and this program shall therefore be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the Act and this program were enacted and adopted, respectively.~~

Comment [CES11]: Moved to 23.10.040 Code Interpretation

~~23.1005.080 Severability.~~

The Act and this program adopted pursuant thereto, in conjunction with other applicable County land use regulations, comprise the basic state and County law regulating use of shorelines in the county. In the event provisions of this program conflict with other applicable County policies or regulations, the more restrictive shall prevail. Should any section or provision of this program be declared invalid, such decision shall not affect the validity of this program as a whole.

~~23.1005.090 Effective Date.~~

This program and all amendments thereto shall become effective 14 days from immediately upon final approval and adoption by the Department of Ecology's written notice of final action.

Comment [AP12]: Updated per Periodic Review Checklist, Item 2010.a, and Scoping Document, Item #1g.

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Chapter 23.20 Goals and Objectives

Comment [MD13]: All content in Chapter 23.20 moved to CompPlan.

~~23.20.005 Generally.~~

~~This chapter describes overall program goals and objectives. The general policies and regulations in Chapter 23.90 WCC and the specific use policies and regulations in Chapter 23.10 WCC are the means by which these goals and objectives are implemented.~~

~~23.20.010 Adoption.~~

~~In addition to the policy adopted in WCC 23.10.020(C), the following goals and objectives relating to the program elements specified in RCW 90.58.100(2) are hereby adopted. They provide the comprehensive foundation and framework upon which the shoreline area designations, policies, regulations, and administrative procedures are based.~~

~~23.20.020 Economic development.~~

~~The economic development element provides for the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce and other developments that are particularly dependent upon a shoreline location and/or use of the shorelines of the state.~~

~~A. Goal. To create and maintain an economic environment that can coexist harmoniously with the natural and human environment.~~

~~B. Objectives.~~

- ~~1. Encourage economic development that has minimal adverse effects and mitigates unavoidable impacts upon shoreline ecological functions and processes and the built environment.~~
- ~~2. Encourage shoreline development that has a positive effect upon economic and social activities of value to the region.~~
- ~~3. Encourage new water dependent, water related, and water enjoyment economic development in priority order.~~
- ~~4. Encourage economic development that is consistent with the adopted Comprehensive Economic Development Strategy (CEDS) for Whatcom County.~~
- ~~5. Implement economic development policies contained in the Whatcom County Comprehensive Plan in shoreline areas consistent with this program and the Act.~~
- ~~6. Encourage new economic development to locate in areas that are already developed with similar uses.~~
- ~~7. Discourage expansion of existing development that is incompatible with this program, the character of the local area, or the Whatcom County Comprehensive Plan.~~

~~23.20.030 Public access.~~

~~The public access element provides for public access to publicly owned or privately owned shoreline areas where the public is granted a right of use or access.~~

~~A. Goal. To increase the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and/or to view the water and the shoreline from adjacent~~

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locations; provided, that private rights, the public safety, and shoreline ecological functions and processes are protected consistent with the U.S. and state Constitutions, state case law, and state statutes.

~~B. Objectives.~~

- ~~1. Locate, design, manage and maintain public access in a manner that protects shoreline ecological functions and processes and the public health and safety.~~
- ~~2. Design and manage public access in a manner that ensures compatibility with water-dependent uses.~~
- ~~3. Where appropriate, acquire access to publicly owned tidelands and shorelands. Encourage cooperation among the county, landowners, developers, other agencies and organizations to enhance and increase public access to shorelines as specific opportunities arise.~~
- ~~4. Provide and protect visual access to shorelines and tidelands.~~
- ~~5. Require physical or visual access to shorelines as a condition of approval for shoreline development activities commensurate with the impacts of such development and the corresponding benefit to the public, and consistent with constitutional limitations.~~
- ~~6. Develop and manage public access to prevent adverse impacts to adjacent private shoreline properties and developments.~~

~~23.20.040 Recreation.~~

~~The recreation element provides for the preservation and expansion of water-oriented recreational opportunities that facilitate the public's ability to enjoy the physical and aesthetic qualities of the shoreline through parks, public access to tidelands and beaches, bicycle and pedestrian paths, viewpoints and other recreational amenities.~~

~~A. Goal. To provide opportunities and space for diverse forms of water-oriented recreation.~~

~~B. Objectives.~~

- ~~1. Locate, develop, manage, and maintain recreation areas in a manner that protects shoreline ecological functions and processes.~~
- ~~2. Provide a balanced choice of water-oriented public recreational opportunities regionally. Ensure that shoreline recreation facilities serve projected county growth in accordance with the level of service standards established in the Whatcom County Comprehensive Plan and related goals and policies; the Comprehensive Park and Recreation Open Space Plan; the Whatcom County Bicycle Plan; and the Natural Heritage Plan.~~
- ~~3. Acquire additional recreation areas and public access areas with a high recreation value prior to demand to assure that sufficient shoreline recreation opportunities are available to serve future recreational needs.~~
- ~~4. Encourage cooperation among public agencies, nonprofit groups, and private landowners and developers to increase and diversify recreational opportunities through a variety of means including incorporating water-oriented recreational opportunities into mixed use developments and other innovative techniques.~~

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5. ~~Recognize and protect the interest of all people of the state by providing increased recreational opportunities within shorelines of statewide significance and associated shorelands.~~
6. ~~Encourage private and public investment in recreation facilities.~~
7. ~~Locate, design, and operate recreational development in a manner that minimizes adverse effects on adjacent properties as well as other social, recreational, or economic activities.~~

~~23.20.050 Transportation and essential public facilities.~~

~~The transportation and essential public facilities element provides for the general location and extent of existing and proposed public thoroughfares, transportation routes, terminals, and other public utilities and facilities.~~

~~A. Goal. To provide transportation systems and essential public facilities in shoreline areas without adverse effects on existing shoreline use and development or shoreline ecological functions and/or processes.~~

~~B. Objectives:~~

1. ~~Locate, develop, manage, and maintain transportation systems and essential public facilities in a manner that protects shoreline ecological functions and processes. Minimize and mitigate unavoidable impacts.~~
2. ~~Locate and design transportation systems and essential public facilities to be harmonious with the existing and future economic and social needs of the community.~~
3. ~~Discourage the development of non-water dependent transportation systems and essential public facilities unless no feasible alternatives exist. Devote roads within the shoreline jurisdiction to low volume local access routes and shoreline public access where feasible.~~
4. ~~When appropriate, require adequate compensation where transportation systems and essential public facilities reduce the benefits people derive from their property.~~
5. ~~Provide for alternate modes of travel, encourage freedom of choice among travel modes, and provide multiple use transportation corridors where compatible in association with shoreline transportation development.~~
6. ~~Require transportation system and essential public facility development in shoreline areas to protect and enhance physical and visual shoreline public access.~~

~~23.20.060 Shoreline use.~~

~~The shoreline use element considers the use and development of shorelines and adjacent land areas for housing, business, industry, transportation, agriculture, forestry, natural resources, recreation, education, public institutions, utilities and other categories of public and private land use with respect to the general distribution, location and extent of such uses and developments.~~

~~A. Goal. To preserve and develop shorelines in a manner that allows for an orderly balance of uses.~~

~~B. Objectives:~~

1. ~~Give preference to water dependent and single-family residential uses that are consistent with preservation of shoreline ecological functions and processes. Give secondary preference to water-related and water-enjoyment uses. Allow non-water-oriented uses only when substantial~~

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- public benefit is provided with respect to the goals of the Act for public access and ecological restoration.
2. Designate and maintain appropriate areas for protecting and restoring shoreline ecological functions and processes to control pollution and prevent damage to the shoreline environment and/or public health.
3. Ensure shoreline uses are consistent with the Whatcom County Comprehensive Plan.
4. Balance the location, design, and management of shoreline uses throughout the county to prevent a net loss of shoreline ecological functions and processes over time.
5. Encourage mixed use developments that include and support water oriented uses and provide a substantial public benefit consistent with the public access and ecological restoration goals and policies of the Act.
6. Encourage shoreline uses and development that enhance shoreline ecological functions and/or processes or employ innovative features that further the purposes of this program.
7. Encourage shoreline uses and development that enhance and/or increase public access to the shoreline.

~~23.20.070 Conservation.~~

The shoreline conservation element provides for the protection of natural resources, and shoreline ecological functions and processes. Resources to be conserved and protected include, but are not limited to, wetlands; riparian, nearshore, and aquatic habitats; priority fish and wildlife habitats and species; floodplains; feeder bluffs and other geological features; cultural and historic resources; as well as scenic vistas and aesthetics.

A. Goal. To conserve shoreline resources and important shoreline features, and protect shoreline ecological functions and the processes that sustain them to the maximum extent practicable.

~~B. Objectives.~~

1. Develop regulations and mitigation standards that ensure new shoreline developments prevent a net loss of shoreline ecological functions and processes. Implement such regulations and standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.
2. Protect critical areas in accordance with the policies and regulations in Chapter 16.16 WCC.
3. Manage renewable natural resources on a sustained yield basis. Extract nonrenewable natural resources in a manner that maintains the quality of other resources and shoreline ecological functions and processes.
4. Prioritize protection and/or conservation of shoreline areas that are ecologically intact and minimally developed or degraded.

~~23.20.080 Archaeological, historical and cultural resources.~~

The archaeological historical cultural element provides for protection, preservation and/or restoration of buildings, sites, and areas having archaeological, historical, cultural, or scientific value or significance.

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~~A.—Goal. Protect shoreline features of historic, cultural, archeological, or scientific value or significance to prevent damage or destruction through coordination and consultation with the appropriate local, state and federal authorities, including affected Indian tribes.~~

~~B.—Objectives.~~

- ~~1. Protect sites in collaboration with appropriate tribal, state, federal and local governments. Encourage public agencies and private parties to cooperate in the identification, protection and management of cultural resources.~~
- ~~2. Where appropriate, make access to such sites available to parties of interest; provided, that access to such sites must be designed and managed in a manner that gives maximum protection to the resource.~~
- ~~3. Provide opportunities for education related to archaeological, historical and cultural features where appropriate and incorporated into public and private programs and development.~~

~~**23.20.090 Views and aesthetics.**~~

~~This element provides for preservation and/or protection of scenic vistas, views of the water, and other aesthetic qualities of shorelines for public enjoyment.~~

~~A.—Goal. To assure that the public’s ability and opportunity to enjoy shoreline views and aesthetics is protected.~~

~~B.—Objectives.~~

- ~~1. Identify and protect areas with scenic vistas and areas where the shoreline has high aesthetic value.~~
- ~~2. Design development to minimize adverse impacts on views from public property or views enjoyed by a substantial number of residences.~~

~~**23.20.100 Restoration and enhancement.**~~

~~This element provides for the timely restoration and enhancement of ecologically impaired areas in a manner that achieves a net gain in shoreline ecological functions and processes above baseline conditions as of the adoption of this program.~~

~~A.—Goal. To reestablish, rehabilitate and/or otherwise improve impaired shoreline ecological functions and/or processes through voluntary and incentive-based public and private programs and actions that are consistent with the Shoreline Management Program Restoration Plan (County Resolution 2007-011) and other approved restoration plans.~~

~~B.—Objectives.~~

- ~~1. Encourage and facilitate cooperative restoration and enhancement programs between local, state, and federal public agencies, tribes, nonprofit organizations, and landowners to address shorelines with impaired ecological functions and/or processes.~~
- ~~2. Restore and enhance shoreline ecological functions and processes as well as shoreline features through voluntary and incentive-based public and private programs.~~
- ~~3. Target restoration and enhancement towards improving habitat requirements of priority and/or locally important wildlife species.~~

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- 1 ~~4. Ensure restoration and enhancement is consistent with and, where practicable, prioritized~~
- 2 ~~based on the biological recovery goals for early Chinook and bull trout populations and other~~
- 3 ~~species and/or populations for which a recovery plan is available.~~
- 4 ~~5. Integrate restoration and enhancement with other parallel natural resource management~~
- 5 ~~efforts such as the WRIA 1 Salmonid Recovery Plan, Drayton Harbor and Portage Bay Shellfish~~
- 6 ~~Protection District Plans, WRIA 1 Watershed Management Plan, Whatcom County~~
- 7 ~~Comprehensive Plan, and the Puget Sound Salmon Recovery Draft Plan.~~

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Chapter 23.05-10 Administrative Procedures Provisions

23.10.010 Authorization.

RCW 90.58.140(3) requires local governments to establish a program, consistent with the rules adopted by Ecology, for the administration and enforcement of shoreline development. Also, in accordance with RCW 90.58.050, which provides that This program is intended to establish a cooperative program between Whatcom County and the state. Whatcom County shall have the primary responsibility for administering the regulatory program, and Ecology shall act primarily in a supportive and review capacity, in accordance with RCW 90.58.050.

23.10.100-020 Application to persons and development Applicability.

A. Unless specifically exempted by statute, or as excluded below, This program shall apply to any person, as defined in WCC Chapter 23.110. This program shall apply to any proposed development, use, or activity development as defined in WCC Chapter 23.110. All development and use of shorelines of the state shall be carried out in a manner that is consistent with this program and the policy of the Act as required by RCW 90.58.140(1), whether or not a shoreline permit or statement of exemption is required for such development pursuant to Chapter 23.60 WCC, occurring within shoreline jurisdiction. Such development, use, or activity must conform to chapter 90.58 RCW, the Shoreline Management Act, and this master program whether or not a permit is required.

B. Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered, or land divided, without full compliance with this program, including WCC Chapter 16.16 (Critical Areas).

C. No substantial development as defined in WCC Chapter 23.110 shall be undertaken within shorelines by any person on shorelines without first obtaining a substantial development permit from Whatcom County; provided, that such a permit shall not be required for the exempt activities listed in WCC 22.07.020 (Exemptions from Shoreline Substantial Development Permits) 23.60.022.

D. All developments, uses and development activities on shorelines shall be subject to the policies of the Whatcom County Comprehensive Plan Chapter 11 (Shorelines) and regulations of this program in addition to any other applicable regulations of the Whatcom County Code, provided, that all use and development that is to be located within the Cherry Point Management Area, as defined in Chapter 23.90 WCC, shall be subject to the regulations found in WCC 23.40.210 only, and shall not be subject to the regulations found in this chapter and Chapter 23.40 WCC unless otherwise specified.

E. Application within Federal Reserves or Lands.

1. Areas and uses in those areas that are under exclusive federal jurisdiction as established through federal or state statutes are not subject to the jurisdiction of RCW Chapter 90.58 (SMA).
2. As recognized by RCW 90.58.350, nothing in this program shall affect any rights established by treaty to which the United States is a party.
3. The Act and this program, including the permit system, shall apply to all nonfederal developments and uses undertaken on federal lands and on lands subject to nonfederal

Comment [AP14]: Moved sections 23.10.100 – 150 here from 23.50.

Comment [DN15]: This text is required per WAC 173-26-191(2)(a)(iii)(A).

Comment [CES16]: Covered by 23.40.115 (CPMA)

Comment [AP17]: Moved from 23.30.010 – General Regulations

Comment [AP18]: Updated per Periodic Review Checklist, Item 2017.f, and Scoping Document, Item #2c.

Comment [CES19]: From WAC 90.58.350.

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ownership, lease, or agreement, even though such lands may fall within the external boundaries of a federal ownership.

F. Direct federal agency activities affecting the uses or resources subject to the Act must be consistent to the maximum extent practicable with the enforceable provisions of the Act and with this master program as required by WAC 173-27-060.

G. This master program shall apply to all unincorporated urban lands until such time as a city meets the requirements of WAC 173-26-150 or 173-26-160 for pre-designation of urban growth areas (UGAs) or amends its master program as appropriate.

H. This program shall not apply to:

1. Activities undertaken to comply with a United States Environmental Protection Agency Superfund-related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act (such as the Swift Creek Sediment Management Action Plan), or a Department of Homeland Security order that specifically preempts local regulations in the findings of the order.

2. Pursuant to RCW 90.58.045 regarding environmental excellence program agreements, notwithstanding any other provision of law, any legal requirement under the Shoreline Management Act, including any standard, limitation, rule, or order is superseded and replaced in accordance with the terms and provisions of an environmental excellence program agreement, entered into under chapter 43.21K RCW.

3. The holder of a certification from the governor pursuant to chapter 80.50 RCW shall not be required to obtain a permit under chapter 90.58 RCW.

I. Pursuant to RCW 90.58.140(12), a permit is not required in order to dispose of dredged materials at a disposal site approved through the cooperative planning process referenced in RCW 79.105.500, provided the dredged material disposal proponent obtains a valid site use authorization from the Dredged Material Management Program office within the Department of Natural Resources.

23.10.180-030 AdministrationAdministrative Duties.

A. The Director is hereby vested with the authorized to:

1. Administer this program.
2. Determine if a public hearing should be held on a shoreline permit application by the Hearing Examiner pursuant to WCC Title 22 (Land Use and Development) 23.60.130.
3. Grant or deny statements of exemption.
4. Authorize, approve, or deny shoreline substantial development permits, except for those for which the Hearing Examiner or County Council is the designated decision maker.
5. Enforce the code pursuant to WCC 23.10.160 (Violations, Enforcement, and Penalties), including issuing a stop work orders pursuant to the procedure set forth in WAC 173-27-270 and this program, upon a person undertaking an activity on shorelines in violation of Chapter 90.58 RCW or this program; and seek remedies for alleged violations of this program's regulations, or of the provisions of the Act, or of conditions of approval for attached to a all project permits with

Comment [CES20]: Added per Periodic Review Checklist, Item 2017.c, and Scoping Document, Item #1c: Update to fully cover the exceptions in WAC 173-27-044 and -045 to satisfy required legislative amendment.

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- 1 | ~~shoreline permit~~ conditions of approval for consistency with this program issued by Whatcom
2 | County.
- 3 | 6. Decide whether or not a proposal is subject to the consolidated review process of Chapter WCC
4 | 22.05 (Land Use and Development) and determine what other permits are required to be
5 | included in the consolidated review.
- 6 | 7. Make field inspections as needed, and prepare or require reports on a shoreline permit or
7 | statement of exemption applications.
- 8 | 8. Make written recommendations to the County Council or Hearing Examiner as appropriate and,
9 | insofar as possible, assure that all relevant information, testimony, and questions regarding a
10 | specific matter are made available during their respective reviews of such matter.
- 11 | 9. Propose amendments to the Planning Commission deemed necessary to more effectively or
12 | equitably achieve the purposes and goals of this program.
- 13 | 10. Advise interested persons and prospective applicants/proponents as to the administrative
14 | procedures and related components of this program.
- 15 | 11. Collect fees as provided for in WCC Title 22 (Land Use and Development) ~~23.60.070~~; and.
- 16 | 12. Assure that proper notice is given to interested persons and the public ~~through news media,~~
17 | ~~posting, or mailing of notices~~ as required by Title 22 (Land Use and Development).
- 18 | 13. Review administrative and management policies, regulations, plans, and ordinances relative to
19 | lands under County jurisdiction that are adjacent to shorelines so as to achieve a use policy on
20 | such lands that is consistent with the Act and this program.
- 21 | 14. Review and evaluate the records of project review actions in shoreline environments and report
22 | on the cumulative effects of authorized development of shoreline conditions. The Director shall
23 | coordinate such review with the Washington Department of Ecology, the Washington
24 | Department of Fish and Wildlife, the Lummi Nation and Nooksack Tribe, and other interested
25 | parties.
- 26 | 15. ~~Make recommendations to the Planning Commission for open space tax designations pursuant~~
27 | ~~to Chapter 84.34 RCW.~~
- 28 | 16.15. Develop administrative guidance materials related to the interpretations of principles
29 | and terms in this program as required to provide for consistent and equitable implementation of
30 | this program. Such administrative guidance documents shall be ~~developed in consultation with~~
31 | ~~the provided to~~ Washington State Department of Ecology ~~to ensure that any formal written~~
32 | ~~interpretations are consistent with the purpose and intent of Chapter 90.58 RCW, the applicable~~
33 | ~~guidelines, and the goals and objectives of this program.~~
- 34 | B. ~~The Whatcom County Planning Commission is hereby vested with the responsibility to periodically~~
35 | ~~review the program as a major element of the County's planning and regulatory program, and make~~
36 | ~~recommendations for amendments thereof to the County Council.~~
- 37 | C. ~~The Whatcom County Council is hereby vested with authority to:~~
- 38 | 1. ~~Initiate an amendment to this program according to the procedures prescribed in WAC 173-26-~~
39 | ~~100.~~

Comment [PDS21]: Not relevant to SMP

Comment [CES22]: Moved from 23.70.040

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2. Adopt all amendments to this program, after consideration of the recommendation of the Planning Commission and pursuant to the procedural requirements of WCC Chapter 2.02; provided, that substantive amendments shall become effective 14 days from immediately upon adoption by the Department of Ecology's written notice of final action.
3. Make final County decisions or recommendations, as applicable, with regard to shoreline permit, shoreline variance, or shoreline conditional use applications that require County Council action on a consolidated review as provided by WCC Chapter 22.05.

Comment [CES23]: Moved from 23.70.050

~~23.05.010 Authority.~~

As described in adopted Whatcom County Ordinance 2008-034, the general administrative sections of Title 23 (Whatcom County Shoreline Management Program) are not part of this program. They are, however, included with the text of this title for consistency and ease of use. Department of Ecology will be notified of any changes to the administrative chapters listed below.

The use of separate local administrative and enforcement procedures is consistent with the 2003 Washington State Shoreline Master Program Guidelines (WAC 173-26-191(2)(a)(iii)(C)), Administrative provisions:

Local governments may include administrative, enforcement, and permit review procedures in the master program or the procedures may be defined by a local government ordinance separate from the master program. In either case, these procedures shall conform to the Shoreline Management Act, specifically RCW 90.58.140, 90.58.143, 90.58.210 and 90.58.220 and to chapter 173-27 WAC.

~~23.05.020 Purpose.~~

The purpose of the chapter is to allow Whatcom County to revise local administrative procedures (fees, application meetings, authority of administrator, etc.) without a formal state amendment process. These chapters must still be consistent and remain consistent with the related provisions in the Shoreline Management Act and state shoreline rules (WACs). In the event of a conflict, the state RCW or WAC, as amended, will prevail over the local ordinance.

~~23.05.030 Administrative procedures.~~

A. All applications for project permits covered by this title shall be reviewed and processed in accordance with Chapter 22.05 WCC, except as otherwise stated within this title.

B. The following administrative sections and chapters were adopted by the Whatcom County Administrative Procedures Ordinance 2008-034, and are separate from this title:

- WCC 23.60.050 — Minimum application requirements.
- WCC 23.60.060 — Pre-application conference.
- WCC 23.60.070 — Fees.
- WCC 23.60.080 — Notice of application.
- WCC 23.60.090 — Permit application review.
- WCC 23.60.100 — Consolidated permit review.

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~~WCC 23.60.110 – State Environmental Policy Act (SEPA) compliance.~~

~~WCC 23.60.130 – Public hearings.~~

~~WCC 23.60.140 – Permit conditions.~~

~~WCC 23.60.150 – Notice of decision, reconsideration and appeal.~~

~~WCC 23.60.160 – Initiation of development.~~

~~WCC 23.60.180 – Rescission and modification.~~

~~WCC 23.60.190 – Expiration.~~

~~Chapter 23.70 WCC – Administration.~~

~~Chapter 23.80 WCC – Legal Provisions.~~

~~23.10.110 Relationship to other local regulations.~~

Comment [AP24]: Moved to WCC 23.10.060.

~~A. In the case of development subject to the shoreline permit requirement of this program, the county building official shall not issue a building permit for such development until a shoreline permit has been granted; provided, that any permit issued by the building official for such development shall be subject to the same terms and conditions that apply to the shoreline permit.~~

~~B. In the case of development subject to regulations of this program but exempt from the shoreline substantial development permit requirement, any required statement of exemption shall be obtained prior to issuance of the building permit; provided, that for single family residences, a building permit reviewed and signed off by the administrator may substitute for a written statement of exemption. A record of review documenting compliance with bulk and dimensional standards as well as policies and regulations of this program shall be included in the permit review. The building official shall attach and enforce conditions to the building permit as required by applicable regulations of this program pursuant to RCW 90.58.140(1).~~

~~C. In the case of zoning conditional use permits and/or variances required by WCC Title 20 for development that is also within shorelines, the county decision maker shall document compliance with bulk and dimensional standards as well as policies and regulations of this program in consideration of recommendations from the administrator. The decision maker shall attach conditions to such permits and variances as required to make such development consistent with this program.~~

~~D. In the case of land divisions, such as short subdivisions, long plats and planned unit developments that require county approval, the decision maker shall document compliance with bulk and dimensional standards as well as policies and regulations of this program and attach appropriate conditions and/or mitigating measures to such approvals to ensure the design, development activities and future use associated with such land division(s) are consistent with this program.~~

~~E. Other local ordinances that may be applicable to shoreline development or use include, but are not limited to:~~

~~1. Building, plumbing, mechanical, and fire codes.~~

~~2. Boating and swimming, WCC Title 11.~~

~~3. On-site sewage system regulations, Chapter 24.05 WCC.~~

~~4. Solid waste rules and regulations, Chapter 24.06 WCC.~~

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~~5. Zoning, WCC Title 20.~~

~~6. Land division regulations, WCC Title 21.~~

~~7. Development standards.~~

~~23.10.120 Relationship to other state and federal laws.~~

Comment [AP25]: Moved to 23.10.060.

~~A. Obtaining a shoreline permit or statement of exemption for a development or use does not excuse the applicant/proponent from complying with any other local, tribal, state, regional or federal statutes or regulations applicable to such development or use.~~

~~B. At the time of application or initial inquiry, the administrator shall inform the applicant/proponent of other such statutes and regulations relating to shoreline issues that may be applicable to the project to the extent that the administrator is aware of such statutes. However, the final responsibility for determining applicable statutes and regulations and complying with the same rests with the applicant/proponent or responsible person carrying out the use or development in question.~~

~~C. Washington State statutes together with implementing regulations adopted pursuant thereto that may be applicable to shoreline development or use include, but are not limited to:~~

~~1. Flood Control Zone Act, Chapter 86.16 RCW.~~

~~2. Forest Practices Act, Chapter 76.09 RCW.~~

~~3. Fish and Wildlife, RCW Title 77.~~

~~4. Water Pollution Control Act, Chapter 90.48 RCW.~~

~~5. Land Subdivision Act, Chapter 58.17 RCW.~~

~~6. Surface Mining Act, Chapter 78.44 RCW.~~

~~7. Washington Clean Air Act, Chapter 70.94 RCW.~~

~~8. State Environmental Policy Act (SEPA), Chapter 43.21C RCW.~~

~~9. Camping Resorts Act, Chapter 19.105 RCW.~~

~~10. Water Resources Act of 1971, Chapter 90.54 RCW.~~

~~11. Growth Management Act, Chapter 36.70A RCW.~~

~~12. State Hydraulic Code, Chapter 77.55 RCW.~~

~~D. Regional authority regulations authorized by state law that may be applicable to shoreline development or use include, but are not limited to:~~

~~1. Northwest Clean Air Agency regulations.~~

~~2. Puget Sound Water Quality Management Plan.~~

~~E. Federal statutes together with implementing regulations adopted pursuant thereto that may be applicable to shoreline development or use include, but are not limited to:~~

~~1. Rivers and Harbors Act of 1899.~~

~~2. Fish and Wildlife Coordination Act of 1958.~~

~~3. National Environmental Policy Act of 1969 (NEPA).~~

~~4. Coastal Zone Management Act of 1972, as amended.~~

~~5. Federal Water Pollution Control Act, as amended.~~

~~6. Flood Insurance Act of 1968, as amended.~~

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7. ~~Clean Air Act, as amended.~~

8. ~~Endangered Species Act (ESA).~~

~~23.10.1310 Application within federal reserves.~~

A. ~~As recognized by RCW 90.58.350, the provisions of this program shall not apply to lands held in trust by the United States for Indian nations, tribes or individuals.~~

Comment [CES26]: Moved to 23.10.020, Applicability

23.10.040 Code Interpretation.

A. The regulations of this Program shall be interpreted to allow the development, use, or activity as described in the General Regulations and/or Specific Use Regulations only when the proposal is designed, constructed, and/or mitigated to provide no net loss of or a net lift to ecological functions and ecosystem wide processes.

B. The policies of Chapter 11 (Shorelines) of the Comprehensive Plan shall guide interpretation of the regulations.

C. Conflict between the provisions of the this Program and the WACs implementing the Act must be resolved in accordance with the WACs; provided that conflict between the provisions of the WACs implementing the Act and the Act must be resolved in accordance with the Act.

D. In case of conflict between the provisions of this program and Whatcom County Code or the laws, regulations, codes, or rules promulgated by any other authority having jurisdiction within Whatcom County, the more restrictive requirements shall apply, except when constrained by federal or state law.

E. As provided for in RCW 90.58.900, the Act is exempt from the rule of strict construction, and this program, including these regulations, shall therefore be liberally construed to give full effect to the purposes, goals, objectives, and policies of the Act for which this program was enacted and adopted, respectively.

F. Within shoreline jurisdiction, the regulations of WCC Chapter 16.16 adopted pursuant to 23.05.065 (Critical Areas) shall be liberally construed together with the program to give full effect to the objectives and purposes of the provisions of the program and Act.

23.10.050 Shoreline Permits Required.

A. To be authorized, all shoreline development, uses, or activities shall be done in a manner consistent with this program and the Shoreline Management Act as required by RCW 90.58.140(1), regardless of whether a shoreline permit, statement of exemption, shoreline variance, or shoreline conditional use permit is required.

B. The applicable provisions of WCC Title 22 (Land Use and Development) shall govern the processing of permits required under this Title. If any conflict should exist between Title 22 and this program, the provisions of this program shall prevail.

23.10.160 Violations, Enforcement, and Penalties.

A. The Director, when necessary in consultation with the Department of Ecology, is authorized to adopt such rules as are necessary and appropriate to carry out the provisions of the Shoreline Management Act (RCW 90.58.200) and Chapter 173-27 WAC, Part II. The Act calls for a cooperative

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program between local government and the state. It provides for a variety of means of enforcement, including civil and criminal penalties, orders to cease and desist, orders to take corrective action, and permit rescission.

B. In addition to the following provisions, this Title shall be enforced in accordance with WCC Chapter 20.94 (Enforcement and Penalties) and WAC 173-27-240 through 173-27-300 or their successors.

C. To achieve no net loss, if a development, use, or activity has occurred in violation of this program, prompt restoration or mitigation of any adverse impacts shall be provided. The standard mitigation ratio for the critical area or buffer impacts shall be doubled to address temporal loss when appropriate. If this provision is not complied with, the County may restore or mitigate the site and charge the responsible person for the full cost of such an activity. Additionally, any and all permits or approvals issued by the County may be denied for that property for a period of up to six years.

D. Any responsible party that willfully refuses to complete a required restoration plan pursuant to this section shall be guilty of a misdemeanor and, in addition to the requirement of subsection (C), shall provide shoreline restoration equal to double the square footage of the impacted area.

E. Pursuant to WCC 22.05.150 (Permit Revocation), the County may revoke a permit if the applicant violates the conditions or limitations set forth in the permit or exceeds the scope of the work set forth in the permit.

~~23.80.040~~ 23.10.170 Abatement.

Structures or development on shorelines considered by the administrator-Director to present a hazard or other public nuisance to persons, properties, or natural features may be abated by the County under the provisions of WCC Title 15 (Buildings & Construction) and WCC Chapter 22.15 (Code Enforcement) the applicable provisions of the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, or successor as adopted by Whatcom County, or by other appropriate means.

23.10.180 Financial Sureties.

In approving any application or exemption for a shoreline development, the Director may require the posting of a financial surety to ensure continued compliance with any conditions imposed, including the construction of improvements, the adherence to County standards, and/or maintenance, repair or replacement of such improvements. The financial surety shall be in a form acceptable to the County's attorney. In the event a condition occurs warranting the use of financial surety, the Director may act under such financial surety or may perform the work required at the County's expense, which expense shall be a lien against the property, enforceable as would be a judgment thereon.

Comment [CES27]: Added. Though we use financial sureties to ensure performance, there was no authorizing language in the SMP.

~~23.80.010~~ 23.10.190 Amendments.

A. Amendments to the Shoreline Management Program—including both Comprehensive Plan policies and Title 23 regulations—shall be processed pursuant to WCC Chapter 22.10 (Legislative Action Procedures).

B. All regulatory elements of this Program shall be considered a part of the County's development regulations. Certain non-regulatory elements of this master program, including but not limited to the Shoreline Restoration Plan or administrative procedures (WCC Title 22), may be updated and amended at any time without requiring a formal master program amendment. Future changes to

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WCC Title 22 shall remain consistent with the Shoreline Management Act and associated rules, specifically RCW 90.58.140, 90.58.143, 90.58.210, 90.58.220 and Chapter 173-27 WAC.

C. After approval or disapproval of a program amendment by the Department of Ecology as provided in RCW 90.58.090, the County shall publish a notice that the program amendment has been approved or disapproved by the Department of Ecology. For the purposes of RCW 36.70A.290, the date of publication for the amendment of a program is the date the County publishes notice that the program amendment has been approved or disapproved by the Department of Ecology.

A-D. The Director shall submit an annual report to the County Council reviewing the effectiveness of the program in achieving its stated purpose, goals, and objectives. Such report may also include any proposed amendments deemed necessary to increase its effectiveness or equity. If said report contains proposed amendments, the Council may schedule a public hearing to consider such matter in accordance with the procedure described in subsection (A). Said report shall also include a determination of whether or not the goal of no net loss of shoreline ecological function is being achieved and provide recommendations for achieving and maintaining the goal.

Comment [DOE-Req28]: Required Change – This change clarifies that while administrative provisions can be codified within a local ordinance separate from the SMP, such changes shall remain consistent with the Shoreline Management Act (SMA) and applicable rules (See SMP Guidelines at WAC 173-26-191(2)(a)(iii)(C).

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Chapter 23.230 Shoreline Jurisdiction and Area-Environment Designations

23.230.010 Shoreline Jurisdiction.

A. The provisions of this program shall apply to all shorelines of the state in unincorporated Whatcom County, including all shorelines of statewide significance (~~Appendix D of this title~~) and all shorelands as defined in WCC Chapter 23.110 and collectively referred to herein as “shorelines.” For the purposes of this program, jurisdictional shorelines are divided into segments or reaches. Each segment is assigned one or more shoreline ~~environmental area~~ designations pursuant to this chapter in order to provide for the management of use and development within shorelines.

B. The shoreline master program jurisdiction applies to all shorelines of the state and their associated shorelands. This includes:

1. All marine waters;
2. Rivers and streams with more than twenty cubic feet per second (cfs) mean annual flow;
3. Lakes and reservoirs twenty acres and greater in area;
4. Floodways and the entire 100-year contiguous floodplain areas landward two hundred feet from such floodways; and.
5. All associated wetlands and river deltas associated with the streams, lakes, and tidal waters that are subject to the provisions of the Act;
6. Shorelands adjacent to these waterbodies, typically within two hundred feet of the ordinary high water mark (OHWM);
7. Buffers necessary to protect critical areas that are located within shoreline jurisdiction as described in this program.
8. Associated estuarine wetlands: the jurisdictional boundary shall extend two hundred feet landward of the OHWM of the wetland.
9. Associated palustrine wetlands that extend greater than two hundred feet landward of the OHWM of the shoreline: the jurisdictional boundary shall extend to the delineated edge OHWM of the wetland.
10. Critical areas designated pursuant to Chapter 36.70A RCW and located within shoreline jurisdiction shall be subject to the regulations of this program.

23.20.020 ~~23.230.020~~ Official Shoreline Map.

A. As part of this program, there is one official Whatcom County shoreline environment designations map, which shall be in the custody of the Planning and Development Services Department and available for public inspection during normal business hours and on the Whatcom County website. Unofficial copies of the official map or portions thereof may be included or distributed with copies of this program. Shoreline Area Designations. Shoreline area designations are delineated on a map, hereby incorporated as a part of this program (Appendix E of this title) that shall be known as the Official Shoreline Map. There shall be only one official copy of this map that shall reside in the custody of the Washington State Department of Ecology. Additional copies have been provided to

Comment [DOE-Req29]: Required Change – Whatcom County has removed the previously adopted “geomorphic floodplain” on the Official Shoreline Map to determine jurisdiction for the Nooksack and Sumas Rivers and has elected to set its jurisdiction as the extent of the 100-year floodplain recently remapped by FEMA. This change is necessary for consistency with the map change.

Comment [DOE-Req30]: Required Change – This change clarifies that while administrative provisions can be codified within a local ordinance separate from the SMP, such changes shall remain consistent with the Shoreline Management Act (SMA) and applicable rules (See SMP Guidelines at WAC 173-26-191(2)(a)(iii)(C).

Comment [DOE-Req31]: Required Change – Shoreline associated wetlands are not limited to palustrine wetlands for the purposes of determining shoreline jurisdiction. Also, the latera extent of wetlands is not always consistent with the OHWM of the primary waterbody. As such, these changes are necessary for consistency with the definition of “Shorelands” found in RCW 90.58.030(2)(f).

Comment [CES32]: From RCW 90.58.030(2)((f) and DOE SMP Handbook.

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- 1 the Whatcom County auditor and the Whatcom County planning and development services
2 department where they are available for public use.
- 3 B. The purpose of the official shoreline environment designations map is to depict graphically those
4 areas of Whatcom County falling under the jurisdiction of this program, and the shoreline
5 environment designations of those areas. ~~Shoreline Jurisdictional Limits. The purpose of the Official~~
6 ~~Shoreline Map is to identify shoreline area designations.~~ The map does not necessarily identify or
7 depict the lateral extent of shoreline jurisdiction nor does it identify all associated wetlands. The
8 lateral extent of the shoreline jurisdiction shall be determined on a case-by-case basis based on the
9 location of the ordinary high water mark (OHWM), floodway, floodplain, and presence of associated
10 wetlands; ~~provided, that, exclusive of associated wetlands, the map identifies the lateral extent of~~
11 ~~shoreline jurisdiction on the Sumas River and the Mainstem, North Fork, Middle Fork and South Fork~~
12 ~~of the Nooksack River.~~
- 13 C. Where questions arise regarding the precise boundaries of any shoreline designation, the Director
14 will make the final determination following the guidance of 23.20.030 (Interpretation of Official Map
15 Boundaries) and 23.20.040 (Mapping Errors). Appeals of such interpretations may be filed pursuant
16 to WCC 22.05.160 (Appeals).
- 17 D. All shorelines waterward of the OHWM shall be designated aquatic, except that in the Cherry Point
18 Management Area the aquatic designation shall start waterward of the CPMA boundary (see
19 subsection E).
- 20 E. The Cherry Point Management Area is a geographic area lying between the eastern property
21 boundary of Tax Lots 2.27 and 2.28 within the SE 1/4 of Section 11, Township 39 North, Range 1
22 West, as it existed on June 18, 1987, and the southern boundary of Section 32, Township 39 North,
23 Range 1 East, extending waterward a distance of 5,000 feet and extending landward for 200 feet as
24 measured on a horizontal plane from the OHWM. This area shall have the Cherry Point Management
25 Area shoreline environment designation.
- 26 F. Upland shoreline environment designations shall apply to shorelands, unless specifically stated to be
27 applied to the aquatic designation by this program.
- 28 ~~F.G.~~ Only one shoreline environment designation shall apply to a given shoreland area. In the case of
29 designations running parallel to one another (as along the coast), designations shall be divided along
30 an identified linear feature. Such linear features shall be clearly noted in the metadata associated
31 with the Official Shoreline Map.
- 32 ~~G.H.~~ All shorelines east of the Mount Baker National Forest western boundary are designated natural
33 or conservancy unless there are federal projects on federal lands.
- 34 ~~H.I.~~ All areas within shorelines that are not mapped and/or designated and are not directly adjacent to
35 other shoreline designated areas are automatically assigned a conservancy designation. Within
36 urban growth areas, such shorelines shall be automatically assigned an urban conservancy
37 designation until such time that the shoreline environment can be re-designated through a formal
38 amendment.

Comment [PDS33]: Should be based existing conditions

Comment [DOE-Req34]: Required Change – This change restores existing language and the Official Shoreline Map does not include the western portions of the county, and thus a Conservancy designation would be assigned as a default pursuant to the SMP Guidelines at WAC 173-26-211(2)(e).

Comment [DOE-Req35]: Required Change – This change restores existing language by removing a proviso that is not applicable to unmapped and/or designated shorelines per WAC 173-26-211(2)(e).

Comment [CES36]: Moved from “Interpretation of Map” section, below.

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~~23.020.021-030~~ Interpretation of ~~shoreline area designation boundaries~~ Official Map Boundaries.

Where the exact location of an environment designation boundary line is uncertain, the official shoreline environment designations map will be used to determine the location of such line. When resorting to the shoreline environment designations map does not resolve the conflict, the following rules will apply:

1. Boundaries indicated as approximately following the center lines of streets, highways, alleys, or other roadways, or railroads shall be construed to follow the nearest right-of-way edge;
2. Boundaries indicated as approximately following lot, fractional section, or other subdivision lines shall be construed as following such subdivision lines;
3. Boundaries indicated as approximately following any lines of corporate limits or other local government jurisdictional lines shall be construed as following such lines;
4. Boundaries indicated as parallel to or extensions of features identified in subsections (1) through (3) of this section shall be so construed; and,
5. Boundaries between parallel environment designations along the shoreline shall be construed as the top of the bluff or vegetation line that distinguishes existing development from the critical area abutting the shoreline.

~~— When not specifically indicated on the shoreline environment designations map, distances shall be determined by the scale of the map;~~

~~— Where existing physical or cultural features are at variance with those shown on the shoreline environment designations map and cannot be determined with certainty by applying subsections (A)(1) through (6) of this section, the director shall determine the location or existence of such feature utilizing the provisions of WAC 173-27-211, the policies of RCW 90.58.020, and the corresponding master program provisions herein; and~~

~~If disagreement develops as to the exact location of a shoreline area designation boundary line, the Official Shoreline Map shall prevail.~~

~~If disagreement develops as to the exact location of a shoreline area designation boundary line, the following rules shall apply:~~

~~Boundaries indicated as approximately following lot, tract, or section lines shall be so construed.~~

~~Boundaries indicated as approximately following roads or railways shall be respectively construed to follow their centerlines.~~

~~Boundaries indicated as approximately parallel to or extensions of features indicated in subsection (B)(1) or (2) of this section shall be so construed.~~

~~Whenever existing physical features are inconsistent with boundaries on the Official Shoreline Map, the administrator shall interpret the boundaries. Appeals of such interpretations may be filed pursuant to WCC 23.60.150(H).~~

~~All shoreline area waterward of the OHWM shall be designated aquatic.~~

~~Upland shoreline area designations shall apply to shorelands.~~

~~Only one shoreline area designation shall apply to a given shoreland area. In the case of parallel designations, designations shall be divided along an identified linear feature. Such linear features shall be clearly noted in the metadata associated with the Official Shoreline Map.~~

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All shorelines east of the Mount Baker National Forest western boundary are designated conservancy unless there are federal projects on federal lands.

All areas within shorelines that are not mapped and/or designated are automatically assigned a conservancy designation. Within urban growth areas, such shorelines shall be automatically assigned an urban conservancy designation until such time that the shoreline area can be re-designated through a formal amendment.

Comment [CES37]: Moved to 23.20.020 Official Map section

23.20.040 Mapping Errors

Some mapping errors may be adjusted prior to a master program amendment to assign the appropriate designation to that area by the following methods:

1. The common boundary descriptions and the criteria in RCW 90.58.030(2) and Chapter 173-22 WAC supersede the map when there are mapping error conflicts, other than those with a solution provided in this section.
~~In the event that a jurisdictional area, including associated wetlands, is not mapped, it will automatically be assigned a "resource," "conservancy," or "urban conservancy" designation depending on its location. If outside a UGA and adjacent to an existing "resource" designation, it shall be "resource," if adjacent to "conservancy" it shall be "conservancy. If outside or inside of a UGA or LAMIRD it shall be "urban conservancy." Such designation will apply until a master program amendment is approved that assigns the appropriate designation to the subject area.~~
2. In the event that a parcel was inadvertently assigned more than one designation, the more restrictive designation shall apply.
3. In the event that a parcel on the boundary between two designations appears to be a mapping error based on the criteria in this section, the County shall apply the most appropriate of the two designations, until such time as the map can be formally corrected consistent with WAC 173-26-100 and Section 22.500.105(I) (Shoreline Master Program Amendment).
4. In the event of an environment designation mapping error where the master program update or amendment record, including the public hearing process, is clear in terms of the correct environment designation to apply to a property, the County shall apply the environment designation approved through the master program update or amendment process and correct the map.
5. If the environment designation criteria were misapplied, but the update or amendment record, including the public hearing process, does not clearly show that a different designation was intended to be shown on the map, a master program amendment may be obtained consistent with WAC 173-26-100 and Section 22.500.105(I) (Shoreline Master Program Amendment). This process is intended to allow for reasonable corrections to the shoreline environment designation process. Such process shall include early consultation with the Department of Ecology and other agencies with jurisdiction, affected tribes, and appropriate public notification prior to local approval. Current designations are reflected in the shoreline environment designations map located pursuant to WCC Chapter 23.20 (Shoreline Jurisdiction and Environment Designations).

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~~23.020.022-050~~ Shoreline Area Environment Designations.

- A. ~~A set of 10 shoreline area designations has been developed as a part of this program. The purpose of the shoreline area designations is to provide a systematic, rational, and equitable basis upon which to guide and regulate development within specific shoreline reaches.~~
- B. ~~Shoreline area designations have been determined after consideration of:~~
- ~~1. The ecological functions and processes that characterize the shoreline, together with the degree of human alteration; and~~
 - ~~2. Existing development patterns together with WCC Title 20, Zoning, designations, the County Comprehensive Plan designations and other officially adopted plans; and~~
 - ~~3. Federal and tribal ownership status; and~~
 - ~~4. The goals of Whatcom County citizens for their shorelines; and~~
 - ~~5. Pursuant to RCW 90.58.100(4), in designating state-owned shorelines, consideration has been given to public demand for wilderness beaches, ecological study areas, and other recreational activities; and~~
 - ~~6. Other state policies in the Act and the Shoreline Master Program Guidelines (RCW 90.58.020 and Chapter 173-26 WAC, respectively).~~

Comment [MD38]: Moved to CompPlan.

A. ~~Development, use and activities use~~ within each designated shoreline ~~area~~ environment shall occur consistent with ~~the SMP~~ this program, including but not limited to: the shoreline environment designation purpose, designation criteria, and policies described found in Whatcom County Comprehensive Plan Chapter 11 (Shorelines) below; the general policies and regulations contained in Chapter 11 (Shorelines) and WCC Chapter 23.390 (General Regulations), and the use and modification policies and regulations provided in Chapter 11 (Shorelines) and WCC Chapter 23.4100 (Shoreline Use and Modification Regulations), subject to the provisions of the ~~Whatcom County Zoning Code~~, WCC Title 20 (Zoning), and other applicable land use regulations where more restrictive.

B. Shoreline environment designations in Whatcom County include the following:

1. Urban
2. Urban Resort
3. Urban Conservancy
4. Shoreline Residential
5. Rural
6. Resource
7. Conservancy
8. Natural
9. Aquatic
10. Cherry Point Management Area

Comment [CES39]: Policy Change. The existing SMP treats the SPMA as a sort of overlay designation. Based on Council's recent actions regarding this area, staff is proposing that it be given its own environment designation.

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23.020.023-060 Designation of Shorelines of Statewide Significance.

In accordance with the criteria of RCW 90.58.030(2)(e), the legislature designated the following shorelines of unincorporated Whatcom County, including the shorelands and associated wetlands as therein defined, as having statewide significance:

A. Lakes:

1. Lake Whatcom;
2. Ross Lake; and
3. Baker Lake.

B. Rivers:

1. Nooksack River: its Mainstem downstream to Bellingham Bay, its North Fork upstream to the mouth of Glacier Creek, and its South Fork upstream to the mouth of Hutchinson Creek.
2. Skagit River: upstream of the Whatcom-/Skagit County line to the point where the mean annual flow is measured at 1,000 feet per second or more, approximately, at the confluence of Newhalem Creek.

C. Marine:

1. Birch Bay from Birch Point to Point Whitehorn.
2. All other marine waters, water columns, and bedlands waterward of extreme low tide.

~~23.30.030 Urban shoreline area.~~

~~23.30.031 Urban shoreline area—Purpose.~~

~~The purpose of the urban shoreline area is to provide for intensive development of water-oriented commercial, transportation, and industrial uses and accommodate mixed-use developments such as those consisting of urban density residential, commercial and industrial uses, while protecting existing shoreline ecological functions and processes and restoring shoreline ecological functions and/or processes in areas that have been previously degraded.~~

~~23.30.032 Urban shoreline area—Designation criteria.~~

~~The urban shoreline area is applied to shoreline areas zoned commercial, industrial and urban density residential within urban growth areas and limited industrial or commercial areas of more intense rural development, if they:~~

- ~~Are currently characterized by high intensity development and/or uses; are designated by the Comprehensive Plan for high intensity uses or intensive uses related to commerce, transportation or navigation; or are suitable and planned for high intensity mixed use; and~~
- ~~Do not contain limitations to urban use such as geologic hazards, and have adequate utilities and access; and~~
- ~~Do not provide important ecological functions that would be significantly compromised by high intensity residential, commercial, or industrial use.~~

~~23.30.033 Urban shoreline area—Policies.~~

~~Development within urban shoreline areas shall be consistent with the following policies:~~

- ~~New urban character development should be directed toward already developed or developing areas where compatible.~~

Comment [CES40]: The remainder of this chapter has been moved to either the CompPlan (in the case of purpose statements, designation criteria, and policies) or the amended Table 2 (Shoreline Use Table) (in the case of use permissions) so as to make it easier to find all such regulations.

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~~B. First priority should be given to water dependent uses. Second priority should be given to water-related and then water enjoyment uses. Non water oriented uses should not be allowed except as part of mixed use developments. Non water oriented uses may also be allowed in limited situations where they do not conflict with or limit opportunities for water oriented uses or on sites where there is no direct access to the shoreline, or where the needs of existing and future water-dependent uses are met.~~

~~23.30.034 Urban shoreline area – Permitted uses.~~

~~The following uses may be permitted subject to the applicable policies and regulations of this program:~~

~~A. Residential.~~

~~B. Water oriented commercial, industrial and/or port development.~~

~~C. Water oriented recreation.~~

~~D. Agricultural.~~

~~23.30.035 Urban shoreline area – Conditional uses.~~

~~The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:~~

~~A. Non water oriented commercial, industrial and/or port development, subject to the criteria in WCC 23.100.050(B)(1)(d) and 23.100.070(B)(1)(c)(iv), respectively.~~

~~B. Dams, diversions and tailrace structures for hydroelectric power generation.~~

~~C. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~

~~D. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, provided there is no feasible location outside the shoreline.~~

~~E. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~

~~23.30.036 Urban shoreline area – Prohibited uses.~~

~~The following uses are prohibited:~~

~~A. Forest practices.~~

~~B. Surface mining.~~

~~23.30.040 Urban resort shoreline area.~~

~~23.30.041 Urban resort shoreline area – Purpose.~~

~~The purpose of the urban resort shoreline area is to provide for intensive residential and commercial uses geared to the needs of tourists and day visitors while protecting existing shoreline ecological functions and processes. Emphasis is on hotels, motels, shops, restaurants, commercial rental campgrounds, rental cabins, and shoreline related recreation facilities.~~

~~23.30.042 Urban resort shoreline area – Designation criteria.~~

~~The urban resort shoreline area is applied to shoreline areas identified in the Comprehensive Plan as suitable for resort commercial development with substantial features that might reasonably attract~~

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resort development compatible with other development in the area, and which have existing and/or planned infrastructure sufficient to support such development.

~~23.30.043 Urban resort shoreline area – Policies.~~

Development within urban resort shoreline areas shall be consistent with the following policies:

- ~~A. Scale and design of resort development should assure compatibility with allowed uses of adjacent shoreline areas and shoreline ecological functions and processes.~~
- ~~B. Buildings over 35 feet in height may be permitted if additional open space, view areas, public access and/or other amenities are provided.~~

~~23.30.044 Urban resort shoreline area – Permitted uses.~~

The following uses may be permitted subject to the applicable policies and regulations of this program:

- ~~A. Residential.~~
- ~~B. Water-oriented commercial.~~
- ~~C. Port development, limited to passenger terminals.~~
- ~~D. Water-oriented recreation.~~

~~23.30.045 Urban resort shoreline area – Conditional uses.~~

The following may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- ~~A. Non-water oriented commercial, subject to the criteria in WCC 23.100.050(B)(1)(d).~~
- ~~B. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~
- ~~C. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, provided there is no feasible location outside the shoreline.~~
- ~~D. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~

~~23.30.046 Urban resort shoreline area – Prohibited uses.~~

The following uses are prohibited:

- ~~A. Agricultural.~~
- ~~B. Forest practices.~~
- ~~C. Surface mining.~~
- ~~D. All other industrial and port development.~~

~~23.30.050 Urban conservancy shoreline area.~~

~~23.30.051 Urban conservancy shoreline area – Purpose.~~

The purpose of the urban conservancy shoreline area is to protect shoreline ecological functions and processes in urban growth areas and limited areas of more intense rural development that are not designated for high intensity residential use and are not generally suitable for water dependent uses.

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~~23.30.052 Urban conservancy shoreline area – Designation criteria.~~

The urban conservancy shoreline area is applied to shoreline areas inside urban growth areas where any of the following characteristics apply:

- ~~A. They support or retain important shoreline ecological functions and/or processes, even though partially developed.~~
- ~~B. They have the potential for development at an intensity and character that is compatible with preserving and restoring ecological functions. They are generally not designated for high intensity residential use, commercial use, or industrial use.~~
- ~~C. They are characterized by critical areas or indicate the presence of other valuable or sensitive ecological resources.~~

~~23.30.053 Urban conservancy shoreline area – Policies.~~

Development within urban conservancy shoreline areas shall be consistent with the following policies:

- ~~A. Primary permitted uses should consist of low intensity residential uses or other low intensity uses that preserve the natural character of the area or promote preservation of open space and critical areas.~~
- ~~B. Moderate to high intensity residential use may be permitted if the proposed uses and design result in substantial open space, public access and/or restoration of shoreline ecological functions and/or processes, and if compatible with surrounding uses.~~
- ~~C. Public access and public recreation facilities are a preferred use if they will not cause substantial ecological impacts and when restoration of ecological functions is incorporated.~~
- ~~D. Low intensity commercial uses may be permitted if the specific uses and design result in substantial open space, public access and/or restoration of ecological functions and if compatible with surrounding uses.~~

~~23.30.054 Urban conservancy shoreline area – Permitted uses.~~

The following uses may be permitted subject to the applicable policies and regulations of this program:

- ~~1. Single family and duplex residential.~~
- ~~2. Agricultural.~~
- ~~3. Low intensity recreation; provided, that facilities do not require substantive alterations to topography, such as public forest preserves, wildlife reserves, natural systems education, and/or interpretive areas, trails, trailheads, with associated restroom facilities and parking areas for no more than 30 vehicles, and buildings for interpretive facilities not exceeding 4,000 square feet, subject to the criteria in WCC 23.100.100.~~

~~23.30.055 Urban conservancy shoreline area – Conditional uses.~~

The following may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- ~~A. All other residential development.~~
- ~~B. Low intensity water-oriented commercial limited to resort, bed and breakfast, campgrounds and similar facilities subject to the criteria in WCC 23.100.050. Low intensity non-water-oriented~~

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commercial limited to resort, bed and breakfast, campgrounds and similar facilities, subject to the criteria in WCC 23.100.050(B)(1)(d).

~~C. Dams, diversions and tailrace structures for hydroelectric power generation.~~

~~D. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~

~~E. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~

~~F. Sewage outfalls and treatment plants, over water communication or power lines, fuel pipelines, or other types of hazardous materials pipelines, provided there is no feasible location outside of the shoreline.~~

~~23.30.056 Urban conservancy shoreline area—Prohibited uses.~~

~~The following uses are prohibited:~~

~~A. Forest practices.~~

~~B. Surface mining.~~

~~C. All other industrial and port development.~~

~~D. Transportation facilities not serving a specific approved use.~~

~~23.30.060 Shoreline residential area.~~

~~23.30.061 Shoreline residential area—Purpose.~~

~~The shoreline residential shoreline area accommodates residential development and accessory structures that are consistent with this chapter.~~

~~23.30.062 Shoreline residential area—Designation criteria.~~

~~The shoreline residential shoreline area is applied to shorelines if they have been predominantly developed with single family or multifamily residential uses or are planned and platted for residential development. The designation is generally applied to residential densities of greater than one unit per acre.~~

~~23.30.063 Shoreline residential area—Policies.~~

~~Development within shoreline residential shoreline areas shall be consistent with the following policies:~~

~~A. The scale and density of new uses and development should be compatible with, and protect or enhance, the existing residential character of the area while sustaining shoreline ecological functions and processes.~~

~~B. Public or private outdoor recreation facilities should be encouraged if compatible with the character of the area. Preferred uses include water dependent and water enjoyment recreation facilities that provide opportunities for substantial numbers of people to access and enjoy the shoreline.~~

~~C. Commercial development should be limited to water oriented uses. Non water oriented commercial uses may be permitted as part of mixed use developments where the primary use is residential; provided, that such uses should provide a substantial benefit with respect to the goals and policies of this program such as providing public access or restoring degraded shorelines.~~

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~~23.30.064 Shoreline residential area – Permitted uses.~~

The following uses may be permitted subject to the applicable policies and regulations of this program:

- ~~A. Residential.~~
- ~~B. Water-oriented commercial.~~
- ~~C. Water-oriented recreation.~~
- ~~D. Agricultural.~~

~~23.30.065 Shoreline residential area – Conditional uses.~~

The following may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- ~~A. Non-water-oriented commercial, subject to the criteria in WCC 23.100.050(B)(1)(d).~~
- ~~B. Dams, diversions and tailrace structures for hydroelectric power generation.~~
- ~~C. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~
- ~~D. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, provided there is no feasible location outside the shoreline.~~
- ~~E. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~

~~23.30.066 Shoreline residential area – Prohibited uses.~~

The following uses are prohibited:

- ~~A. Forest practices.~~
- ~~B. Surface mining.~~
- ~~C. All other industrial and port development.~~

~~23.30.070 Rural shoreline area.~~

~~23.30.071 Rural shoreline area – Purpose.~~

The purpose of the rural shoreline area is to protect shoreline ecological functions in areas having a rural character characterized by open space and low density development including, but not limited to: residences, agriculture, forestry and outdoor recreation. Uses should be compatible with the physical capabilities and limitations, natural resources and shoreline ecological functions and processes of the area.

~~23.30.072 Rural shoreline area – Designation criteria.~~

The rural shoreline area is applied to shoreline areas outside urban growth areas, particularly areas designated as rural in the Whatcom County Comprehensive Plan, and includes areas:

- ~~A. Where the shoreline currently accommodates residential uses outside urban growth areas and is characterized by low density development, pasture, agriculture, woodlots, home occupations, and cottage industries. The distribution of rural land use is adjacent to agricultural, forestry, and urban land uses and often provides a transition between urban areas and commercial agriculture and forestry uses. Natural vegetative cover and topography have been altered in many rural areas, but~~

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substantial ecological functions, and/or the potential for restoration of ecological functions, are present.

~~B. That are now used or potentially usable for a mix of agriculture, forestry, and residential use.~~

~~C. Where residential development is or should be of low density, because of limitations by physical features, the presence of critical areas, and/or lack of utilities or access.~~

~~D. That have high recreational value or unique historic or cultural resources.~~

~~E. Where low intensity outdoor recreation use or development would be appropriate and compatible with other uses and the physical environment.~~

~~F. Where the shoreline has been developed with low intensity water dependent uses.~~

~~23.30.073 Rural shoreline area – Policies.~~

~~Development within rural shoreline areas shall be consistent with the following policies:~~

~~A. Uses in rural areas should protect or enhance the rural character of the shoreline and sustain the shoreline ecological functions and processes by limiting building density and height, and providing effective setbacks, buffers and open space.~~

~~B. Residential development consistent with the rural character of the area is permitted, provided it includes measures to protect ecological functions and processes. Related uses consistent with the rural character of the area are permitted.~~

~~C. Public or private outdoor recreation facilities should be encouraged if compatible with the rural character of the area and developed in a manner that maintains shoreline ecological functions and processes. Preferred uses include water oriented recreation facilities that do not deplete shoreline resources over time, such as boating facilities, angling, wildlife viewing trails, and swimming beaches.~~

~~D. Industrial or commercial development should be limited to, water oriented commercial and industrial uses in the limited locations where such uses have been established or at sites in rural communities that possess appropriate shoreline conditions and services sufficient to support such developments. Non water dependent uses should provide a substantial benefit with respect to the goals and policies of this program such as providing public access and/or restoring degraded shorelines.~~

~~E. Agriculture and forestry consistent with rural character and the maintenance of shoreline ecological functions and processes should be encouraged.~~

~~23.30.074 Rural shoreline area – Permitted uses.~~

~~The following uses may be permitted subject to the applicable policies and regulations of this program:~~

~~A. Residential.~~

~~B. Water oriented commercial.~~

~~C. Water oriented industrial and/or port development.~~

~~D. Water oriented recreation.~~

~~E. Agricultural and forest practices.~~

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~~23.30.075 Rural shoreline area – Conditional uses.~~

The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- ~~A. Non water oriented commercial, industrial and/or port development, subject to the criteria in WCC 23.100.050(B)(1)(d) and 23.100.070(B)(1)(c)(iv), respectively.~~
- ~~B. Dams, diversions and tailrace structures for hydroelectric power generation.~~
- ~~C. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~
- ~~D. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, provided there is no feasible location outside the shoreline.~~
- ~~E. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~
- ~~F. Surface mining.~~

~~23.30.080 Resource shoreline area.~~

~~23.30.081 Resource shoreline area – Purpose.~~

The purpose of the resource shoreline area is to protect shoreline ecological functions and processes in areas designated in the Whatcom County Comprehensive Plan as agriculture resource lands, rural forestry, commercial forestry and mineral resource lands and to protect the economic base of those lands and limit incompatible uses.

~~23.30.082 Resource shoreline area – Designation criteria.~~

The resource shoreline area is applied to shoreline areas designated as agriculture, rural forestry, commercial forestry and mineral resource lands in the Whatcom County Comprehensive Plan and includes areas where the shoreline currently accommodates ongoing resource management, where natural vegetation cover has been altered but substantial ecological functions, or the potential for restoring ecological functions, are present.

~~23.30.083 Resource shoreline area – Policies.~~

Development within resource shoreline areas shall be consistent with the following policies:

- ~~A. Uses in resource areas should protect the economic base of those lands, limit incompatible uses, and sustain the shoreline area ecological processes and functions by limiting uses and intensity. Residential use is generally limited to one dwelling per existing parcel. The dwelling may be located within the shoreline jurisdiction, only where no other building site is feasible on the parcel.~~
- ~~B. Public or private outdoor recreation facilities should be permitted if they do not displace designated resource lands and if they are developed in a manner that maintains shoreline ecological functions. Preferred uses include water dependent and water enjoyment recreation facilities.~~
- ~~C. Industrial or commercial use and development should be limited to uses that serve resource uses. Such uses may be located within the shoreline only if they are water dependent, water related or if no other feasible location exists within the contiguous property.~~

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~~23.30.084 Resource shoreline area – Permitted uses.~~

The following uses may be permitted subject to the applicable policies and regulations of this program:

- ~~A. Residential development limited to farm-related residences or one residence and one accessory dwelling unit per existing parcel, where there is no feasible location outside of the shoreline.~~
- ~~B. Water-oriented commercial related to natural resource products predominantly produced on site.~~
- ~~C. Water-oriented industrial facilities for processing, manufacturing, and storage of natural resource products.~~
- ~~D. Low intensity water-oriented recreation, including public forest preserves, wildlife reserves, natural systems education, and/or interpretive areas, trails, trailheads, with associated restroom facilities and parking areas for no more than 30 vehicles, subject to the criteria in WCC 23.100.100.~~
- ~~E. Agricultural and forest practices.~~

~~23.30.085 Resource shoreline area – Conditional uses.~~

The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:

- ~~A. Non-water-oriented commercial and industrial development related to natural resource products predominantly produced on site, subject to the criteria in WCC 23.100.050(B)(1)(d) and 23.100.070(B)(1)(c)(iv), respectively.~~
- ~~B. Water-oriented industrial and port development other than those uses related to products predominantly produced on site.~~
- ~~C. Dams, diversions and tailrace structures for hydroelectric power generation.~~
- ~~D. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~
- ~~E. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, provided there is no feasible location outside the shoreline.~~
- ~~F. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~
- ~~G. Surface mining.~~

~~23.30.086 Resource shoreline area – Prohibited uses.~~

The following uses are prohibited:

- ~~A. All other commercial development.~~
- ~~B. Other non-water-oriented industrial and port development.~~

~~23.30.090 Conservancy shoreline area.~~

~~23.30.091 Conservancy shoreline area – Purpose.~~

The purpose of the conservancy shoreline area is to retain shoreline ecological functions in areas where important ecological processes have not been substantially degraded by human activities. Conservancy areas are designated outside of urban growth areas. The primary management goal is to preserve shoreline ecological functions and processes by avoiding forms of development that would be incompatible with existing functions and processes, as well as identify and focus restoration efforts in

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areas where benefits to overall functions and processes can be realized. This policy should be furthered by keeping overall intensity of development or use low, and by maintaining most of the area's natural character.

~~23.30.092 Conservancy shoreline area – Designation criteria.~~

The conservancy shoreline area is applied to shoreline areas outside urban growth areas that include areas:

- ~~A. Where development activities and uses are buffered from and do not substantially degrade ecological processes and functions.~~
- ~~B. Where ecological functions are more intact than in areas designated rural or resource.~~
- ~~C. Of outstanding scenic quality or other aesthetic qualities of high value to the region, which would likely be diminished unless development is strictly controlled.~~
- ~~D. Containing critical areas or other sensitive natural or cultural features that require more than normal restrictions on development and use.~~
- ~~E. Having the potential to influence ecological processes in a manner that will produce ecosystem-wide benefits upon restoration.~~
- ~~F. That contain valuable or sensitive natural or cultural features that preclude more than a low overall density of residents, recreation use, structures, or livestock, as well as extensive alterations to topography or other features.~~
- ~~G. Have recreational value to the region that would likely be diminished unless development is strictly controlled.~~

~~23.30.093 Conservancy shoreline area – Policies.~~

Development within conservancy shoreline areas shall be consistent with the following policies:

- ~~A. Natural ecological processes should be protected and renewable resources managed so that ecological functions and the resource base are maintained. Nonrenewable resources should only be consumed in a manner compatible with conservation of other resources and other appropriate uses.~~
- ~~B. Permitted uses should be limited to those compatible with each other and with conservation of shoreline ecological processes and resources.~~
- ~~C. Shorelines should be protected from harmful concentrations of people, livestock, buildings, or structures.~~
- ~~D. Opportunities for ecological restoration should be pursued, prioritizing those areas with the greatest potential to restore ecosystem-wide processes and functions.~~
- ~~E. Outstanding recreational or scenic values should be protected from incompatible development.~~

~~23.30.094 Conservancy shoreline area – Permitted uses.~~

The following uses may be permitted subject to the applicable policies and regulations of this program:

- ~~A. Single family and duplex residential development.~~
- ~~B. Low intensity water-oriented recreation; provided, that facilities do not require substantive alterations to topography, such as public forest preserves, wildlife reserves, natural systems education, and/or interpretive areas, trails, trailheads, with associated restroom facilities and~~

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parking areas for no more than 30 vehicles, and buildings for interpretive facilities not exceeding 2,000 square feet, subject to the criteria in WCC 23.100.100.

~~C. Agricultural and forest practices.~~

~~23.30.095 Conservancy shoreline area – Conditional uses.~~

The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:

~~A. All other residential development.~~

~~B. Low intensity water-oriented commercial limited to resort, bed and breakfast, campgrounds and similar facilities. Low intensity non-water-oriented commercial uses limited to resort, bed and breakfast, campgrounds and similar facilities may be permitted as a conditional use, subject to the criteria in WCC 23.100.050(B)(1)(d).~~

~~C. Dams, diversions and tailrace structures for hydroelectric power generation.~~

~~D. Institutional development and essential public facilities, where there is no feasible location outside the shoreline.~~

~~E. Regional utility development not serving adjacent uses such as sewage trunk lines, desalinization facilities, solid waste transfer and disposal sites, oil pipelines and gas pipelines other than local distribution, provided there is no feasible location outside the shoreline.~~

~~F. Sewage outfalls and treatment plants, over water communication or power lines, fuel pipelines, or other types of hazardous materials pipelines, provided there is no feasible location outside of the shoreline.~~

~~G. Surface mining.~~

~~23.30.096 Conservancy shoreline area – Prohibited uses.~~

The following uses are prohibited:

~~A. All other industrial and port development.~~

~~B. Transportation facilities not serving a specific approved use.~~

~~23.30.100 Natural shoreline area.~~

~~23.30.101 Natural shoreline area – Purpose.~~

The purpose of the natural shoreline area is to ensure long-term preservation of shorelines inside or outside urban growth areas that are ecologically intact.

~~23.30.102 Natural shoreline area – Designation criteria.~~

The natural shoreline area is applied to shoreline areas where any of the following characteristics apply:

~~A. The majority of natural ecological shoreline functions and/or processes are retained, often evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, they include ecologically intact shorelines that are free of structural shoreline modifications, structures, and intensive human uses.~~

~~B. Forested areas that generally include native vegetation with diverse plant communities, multiple canopy layers, and the presence of large woody debris available for recruitment to adjacent water bodies.~~

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~~C. Valuable functions are provided for the larger aquatic and terrestrial environments, which could be lost or significantly reduced by human development.~~

~~D. Ecosystems or geologic types that are of particular scientific and educational interest are represented.~~

~~E. Largely undisturbed areas of wetlands, estuaries, unstable bluffs, coastal dunes, and spits are present.~~

~~F. New development, extractive uses, or physical modifications cannot be supported without significant adverse impacts to ecological functions and/or processes or risk to human safety.~~

~~23.30.103 Natural shoreline area—Policies.~~

~~Development within natural shoreline areas shall be consistent with the following policies:~~

~~A. Preservation of the area's ecological functions, natural features and overall character must receive priority over any other potential use. Uses should not degrade shoreline ecological functions or processes or the natural character of the shoreline area. New development or significant vegetation removal that would reduce the capability of the shoreline to perform a full range of ecological functions or processes should not be permitted.~~

~~B. Private and/or public enjoyment of natural shoreline areas should be encouraged and facilitated through low intensity recreational, scientific, historical, cultural, and educational research uses; provided, that no significant ecological impact on the area will result.~~

~~C. Agricultural and forestry uses of a very low intensity nature may be consistent with the natural shoreline area when such use is subject to appropriate limitations or conditions to assure that the use does not expand or alter practices in a manner inconsistent with the purpose of the designation.~~

~~D. The following uses should not be permitted in the natural shoreline area:~~

~~1. Commercial uses.~~

~~2. Industrial uses.~~

~~3. Non-water oriented recreation.~~

~~4. Roads, utility corridors, and parking areas that can be located outside of natural shoreline areas.~~

~~23.30.104 Natural shoreline area—Permitted uses.~~

~~The following uses may be permitted subject to the applicable policies and regulations of this program:~~

~~A. Low intensity water-oriented recreation; provided, that facilities do not require substantive alterations to topography, such as public forest preserves, wildlife reserves, natural systems education, and/or interpretive areas, trails, trailheads, with associated restroom facilities and parking areas for no more than 10 vehicles, and buildings for interpretive facilities not exceeding 500 square feet, subject to the criteria in WCC 23.100.100.~~

~~B. Low intensity agricultural.~~

~~23.30.105 Natural shoreline area—Conditional uses.~~

~~The following uses may be permitted as conditional uses subject to the applicable policies and regulations of this program:~~

~~A. Single family residential use and development is only permitted on existing lots of record and where there is no feasible location outside the shoreline. Further subdivision is not permitted.~~

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B. ~~Forest practices; provided, that it meets the conditions of the State Forest Practices Act and its implementing rules and is conducted in a manner consistent with the purpose of this environment designation.~~

~~23.30.106 Natural shoreline area – Prohibited uses.~~

~~The following uses are prohibited:~~

~~A. All other residential.~~

~~B. Commercial.~~

~~C. Industrial and port development.~~

~~D. Non-water-oriented recreation.~~

~~E. Institutional.~~

~~F. Transportation facilities not serving a specific approved recreational development.~~

~~G. Utility development not serving a specific approved use.~~

~~H. Surface mining.~~

~~23.30.110 Aquatic shoreline area.~~

~~23.30.111 Aquatic shoreline area – Purpose.~~

~~The purpose of the aquatic shoreline area is to protect, restore, and manage the characteristics and resources of the areas waterward of the ordinary high water mark.~~

~~23.30.112 Aquatic shoreline area – Designation criteria.~~

~~The aquatic shoreline area is defined as the area waterward of the ordinary high water mark of all streams, rivers, marine water bodies, and lakes, constituting shorelines of the state together with their underlying lands and their water column.~~

~~23.30.113 Aquatic shoreline area – Policies.~~

~~Development within aquatic shoreline areas shall be consistent with the following policies:~~

~~A. New over-water structures should only be permitted for water-dependent uses, public access, or ecological restoration. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged.~~

~~B. All developments and uses on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.~~

~~C. Uses that adversely impact the ecological functions of critical saltwater and freshwater habitats should not be permitted except where necessary to achieve the objectives of RCW 90.58.020, and then only when all potential impacts are mitigated as necessary to assure maintenance of shoreline ecological functions and processes.~~

~~D. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural conditions.~~

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~~23.30.114 Aquatic shoreline area – Permitted uses.~~

~~Permitted uses consist of the water dependent uses permitted in abutting upland shoreline area designations, subject to the exceptions listed in WCC 23.30.116.~~

~~23.30.115 Aquatic shoreline area – Conditional uses.~~

~~Conditional uses consist of those water dependent conditional uses designated in abutting upland shoreline area designations.~~

~~23.30.116 Aquatic shoreline area – Prohibited uses.~~

~~The following uses are prohibited:~~

~~A. Residential.~~

~~B. Non water dependent commercial, industrial and port development.~~

~~C. Institutional.~~

~~D. Agricultural.~~

~~23.30.120 Cherry Point management area.~~

~~The policies, regulations and standards, etc., applicable to the Cherry Point management area are found in WCC 23.100.170, except as otherwise specified therein.~~

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Chapter 23.40 Shorelines of Statewide Significance

~~23.40.010 Adoption of policy.~~

In accordance with RCW 90.58.020, the following management and administrative policies are hereby adopted for all shorelines of statewide significance in unincorporated Whatcom County, as defined in RCW 90.58.030(2)(e) and identified in WCC 23.40.020. Consistent with the policy contained in RCW 90.58.020, preference shall be given to the uses that are consistent with the statewide interest in such shorelines. These are uses that:

- ~~A. Recognize and protect the statewide interest over local interest.~~
- ~~B. Preserve the natural character of the shoreline.~~
- ~~C. Result in long term over short term benefit.~~
- ~~D. Protect the resources and ecology of the shoreline.~~
- ~~E. Increase public access to publicly owned areas of the shoreline.~~
- ~~F. Increase recreational opportunities for the public in the shoreline.~~
- ~~G. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.~~

~~Uses that are not consistent with these policies should not be permitted on shorelines of statewide significance.~~

Comment [MD41]: Moved to CompPlan.

~~23.40.020 Designation of shorelines of statewide significance.~~

In accordance with the criteria of RCW 90.58.030(2)(e), the legislature designated the following shorelines of unincorporated Whatcom County, including the shorelands and associated wetlands as therein defined, as having statewide significance:

~~D. Lakes:~~

- ~~1. Lake Whatcom;~~
- ~~2. Ross Lake; and~~
- ~~3. Baker Lake.~~

~~E. Rivers:~~

- ~~1. Nooksack River: its Mainstem downstream to Bellingham Bay, its North Fork to the mouth of Glacier Creek and its South Fork to the mouth of Hutchinson Creek.~~
- ~~2. Skagit River: upstream of the Whatcom-Skagit County line to the point where the mean annual flow is measured at 1,000 feet per second or more, approximately, at the confluence of Newhalem Creek.~~

~~F. Marine:~~

- ~~1. Birch Bay from Birch Point to Point Whitehorn.~~
- ~~2. All other marine waters, water columns, and bedlands waterward of extreme low tide.~~

~~23.40.030 Policies for shorelines of statewide significance.~~

~~The statewide interest should be recognized and protected over the local interest in shorelines of statewide significance. To ensure that statewide interests are protected over local interests, the county~~

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1 shall review all development proposals within shorelines of statewide significance for consistency with
2 RCW 90.58.030 and the following policies:

3 A. Redevelopment of shorelines should be encouraged where it restores or enhances shoreline
4 ecological functions and processes impaired by prior development activities.

5 B. The Washington Departments of Fish and Wildlife and Ecology, the Lummi Nation, the Nooksack
6 Tribe, and other resources agencies should be consulted for development proposals that could
7 affect anadromous fisheries.

8 C. Where commercial timber cutting takes place pursuant to WCC 23.90.110 and RCW 90.58.150,
9 reforestation should take place as soon as possible.

10 D. Activities that use shoreline resources on a sustained yield or non-consuming basis and that are
11 compatible with other appropriate uses should be given priority over uses not meeting these
12 criteria.

13 E. The range of options for shoreline use should be preserved to the maximum possible extent for
14 succeeding generations. Development that consumes valuable, scarce or irreplaceable natural
15 resources should not be permitted if alternative sites are available.

16 F. Potential short term economic gains or convenience should be measured against potential long-
17 term and/or costly impairment of natural features.

18 G. Protection or enhancement of aesthetic values should be actively promoted in design review of new
19 or expanding development.

20 H. Resources and ecological systems of shorelines of statewide significance should be protected.
21 Shorelands and submerged lands should be protected to accommodate current and projected
22 demand for economic resources of statewide importance such as commercial shellfish beds.

23 I. Those limited shorelines containing unique, scarce and/or sensitive resources should be protected
24 to the maximum extent feasible.

25 J. Erosion and sedimentation from development sites should be controlled to minimize adverse
26 impacts on ecosystem processes. If site conditions preclude effective erosion and sediment control,
27 excavations, land clearing, or other activities likely to result in significant erosion should be severely
28 limited.

29 K. Public access development in extremely sensitive areas should be restricted or prohibited. All forms
30 of recreation or access development should be designed to protect the resource base upon which
31 such uses in general depend.

32 L. Public and private developments should be encouraged to provide trails, viewpoints, water access
33 points and shoreline-related recreation opportunities whenever possible. Such development is
34 recognized as a high priority use.

35 M. Development not requiring a waterside or shoreline location should be located inland so that lawful
36 public enjoyment of shorelines is enhanced.

37 N. Lodging and related facilities should be located inland and provide for appropriate means of access
38 to the shoreline.

Comment [MD42]: Moved to CompPlan.

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Chapter 23.390 General Regulations

~~23.90.010 Applicability.~~

All use and development activities on shorelines shall be subject to all of the following general policies and regulations in addition to the applicable use policies and regulations of Chapter 23.100 WCC; provided, that all use and development that is to be located within the Cherry Point management area, as defined in Chapter 23.110 WCC, shall be subject to the policies and regulations found in WCC 23.100.170 and shall not be subject to the policies and regulations found in this chapter and Chapter 23.100 WCC unless otherwise specified.

~~23.90.020 Land use.~~

The following land use policies delineate the use preferences of the Act and this program and are intended to support the goals and objectives of the program:

~~A. Policies.~~

- ~~1. Single family residences should be given preference for location on shorelines in those limited instances when an alteration of the shorelines is authorized (RCW 90.58.020). Single family residences occupied prior to January 1, 1992, and their appurtenant structures should be protected against damage or loss caused by shoreline erosion; provided, that measures to protect single family residences should be designed to minimize harm to the shoreline environment.~~
- ~~2. Shoreline uses that are water dependent or water related should be given preference (RCW 90.58.020). Such uses should be located, designed, and maintained in a manner that minimizes adverse impacts to shoreline ecological functions and/or processes. Non water-oriented development may be allowed; provided, that existing water dependent uses are not displaced and the future supply of sites for water dependent or water related uses is not compromised.~~
- ~~3. Adequate space should be reserved on shorelines to meet the current and projected demand for water dependent uses, in conjunction with areas provided in cities, towns and areas under tribal jurisdiction.~~

~~B. Regulations.~~

- ~~1. Single family residential uses shall be allowed on all shorelines not subject to a preference for commercial or industrial water dependent uses and shall be located, designed, and used in accordance with applicable policies and regulations of this program.~~
- ~~2. Resource uses such as agriculture, forestry and mining activities shall be carried out in a manner consistent with the applicable policies and regulations of this program.~~
- ~~3. Restoration of ecological functions and processes shall be allowed on all shorelines and shall be located, designed and implemented in accordance with applicable policies and regulations of this program.~~

Comment [AP43]: This chapter has been moved forward as it contains the general regulations and the others more specific regulations. All policies, with exception of regulations and those noted as duplicative, have been moved to the CompPlan.

Comment [DN44]: Moved to 23.10 Applicability and slightly reworded

Comment [AP45]: Removed. This provision is more appropriate as a policy, which is already captured in the CompPlan. Implementing regulations are included in the Residential Shoreline Use and Modification Section (WCC 23.40.160).

Comment [AP46]: Removed for clarity and simplicity. This is established in the use table and the applicable use and modification sections.

Comment [DN47]: Moved to WCC 23.40.170 (Restoration and Enhancement)

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4. ~~Shoreline uses and developments that are water dependent shall be given priority. Permit conditions may limit the range of uses or sites developed for such uses. Interim non-water dependent uses authorized as a conditional use may be allowed to respond to short term market conditions; provided, that permit conditions are placed on such uses to provide for a specific timetable or review process to ensure water dependent use of the development in the long term.~~
5. ~~Shoreline uses and developments should be located, designed, and managed so that other appropriate uses are neither subjected to substantial or unnecessary adverse impacts, nor deprived of reasonable, lawful use of navigable waters, other publicly owned shorelines, or private property.~~
6. ~~Navigable waters should be kept free of obstructions for the general benefit of the region, state, and nation. No use or development shall be allowed to effectively exclude other appropriate uses from navigable waters.~~
7. ~~Shoreline uses and developments should be located in a manner so that shoreline stabilization is not likely to become necessary in the future.~~

23.90.030-30.010 Ecological Protection and critical areas.

A. Ecological protection of shoreline environments shall be achieved through compliance with the applicable provisions of WCC Chapter 16.16 (Critical Areas) and (B) and (C) of this subsection.

A. Policies.

1. ~~Shoreline use and development should be carried out in a manner that prevents or mitigates adverse impacts so that the resulting ecological condition does not become worse than the current condition. This means assuring no net loss of ecological functions and processes and protecting critical areas designated in Chapter 16.16 WCC, in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property. Permitted uses shall be designed and conducted to minimize, insofar as practical, any resultant damage to the ecology and environment (RCW 90.58.020). Shoreline ecological functions that should be protected include, but are not limited to, fish and wildlife habitat, food chain support, and water temperature maintenance. Shoreline processes that should be protected include, but are not limited to, water flow; littoral drift; erosion and accretion; infiltration; ground water recharge and discharge; sediment delivery, transport, and storage; large woody debris recruitment; organic matter input; nutrient and pathogen removal; and stream channel formation/maintenance.~~
2. ~~In assessing the potential for net loss of ecological functions or processes, project-specific and cumulative impacts should be considered.~~
3. ~~Development standards for density, frontage, setbacks, impervious surface, shoreline stabilization, vegetation conservation, buffers, critical areas, and water quality should protect existing shoreline ecological functions and processes. During permit review, the administrator should consider the expected impacts associated with proposed shoreline development when assessing compliance with this policy.~~

Comment [DN48]: These provisions were moved to WCC 23.40.030 (General Shoreline Use and Modifications) since they are applicable to that section. These were also reviewed as policies for the CompPlan.

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1 ~~B. Regulations.~~

2 ~~A. An assessment of the existing ecological functions and/or processes provided by topographic,~~
3 ~~physical, and vegetation characteristics of the site shall accompany development proposals. Such~~
4 ~~assessments shall include the following general information:~~

- 5 1. ~~Impacts of the proposed use/development on ecological processes with clear designation of~~
6 ~~existing and proposed routes for water flow, wildlife movement, and other features.~~
7 ~~Infrastructure requirements such as parking, services, lighting, and other features, together with~~
8 ~~the effects of those infrastructure improvements on shoreline ecological functions and/or~~
9 ~~processes.~~

10 ~~B. Development, use, and activities within the shoreline jurisdiction shall avoid and minimize adverse~~
11 ~~impacts, and any unavoidable impacts shall be mitigated to meet no net loss of ecological function~~
12 ~~and ecosystem-wide processes pursuant to WAC 173-26-186.~~

13 ~~C. To provide for flexibility in the administration of the ecological protection provisions of this~~
14 ~~program, buffer modification and alternative mitigation approaches as provided for in WCC 16.16~~
15 ~~may be approved within shorelines where such approaches provide increased protection of~~
16 ~~shoreline ecological functions and processes over the standard provisions of this program and are~~
17 ~~scientifically supported. Use of WCC 16.16.261 (Alternative Mitigation Plans) and 16.16.262~~
18 ~~(Watershed-Based Management Plans) within shoreline jurisdiction shall require a Shoreline~~
19 ~~Conditional Use Permit.~~

20 ~~B. Mitigation Sequencing. To comply with the policies of subsection A of this section, a shoreline~~
21 ~~permit applicant or project proponent shall demonstrate that all reasonable efforts have been taken~~
22 ~~to provide sufficient mitigation such that the activity does not have significant adverse impacts.~~
23 ~~Mitigation shall occur in the following prioritized order:~~

24 ~~C. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or~~
25 ~~moving the action.~~

26 ~~D. Minimizing adverse impacts by limiting the degree or magnitude of the action and its~~
27 ~~implementation by using appropriate technology and engineering, or by taking affirmative steps to~~
28 ~~avoid or reduce adverse impacts.~~

29 ~~E. Rectifying the adverse impact by repairing, rehabilitating, or restoring the affected environment.~~

30 ~~F. Reducing or eliminating the adverse impact over time by preservation and maintenance operations~~
31 ~~during the life of action.~~

32 ~~G. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute~~
33 ~~resources or environments and monitoring the adverse impact and the mitigation project and taking~~
34 ~~appropriate corrective measures. Where appropriate, new development shall use clustering to~~
35 ~~minimize adverse impacts on shoreline ecological functions and processes.~~

36 ~~H. Accessory uses that do not require a shoreline location shall be sited away from the land/water~~
37 ~~interface and landward of the principal use and, unless otherwise specified.~~

38 ~~I. Because of its incorporation by reference herein under WCC 23.10.060(A), the provisions of the~~
39 ~~Whatcom County critical areas ordinance, Chapter 16.16 WCC, shall apply to any use, alteration, or~~
40 ~~development within shoreline jurisdiction whether or not a shoreline permit or written statement of~~

Comment [AP49]: Moved from Site Planning section (WCC 23.30.090). Note: Per Scoping Document, Item #5a., removed "provided, that proposals for single-family residences shall be exempt from this requirement."

Comment [CES50]: Covered by CAO

Comment [DOE-Req51]: Required Change – This change maintains the existing requirement for a CUP for use of select alternative mitigation approaches outlined within the CAO. This change is necessary due to the fact that the impacts from such future proposals using these provisions cannot be reasonably identified at the time of the amendment consistent with the SMP Guidelines at 173-26-201(3)(d)(i)(E)(iii). The CUP requirement maintains the flexibility sought by the proposed language without prohibiting the use of these CAO provisions.

Comment [CES52]: Covered by CAO

Comment [CES53]: Moved to 23.40.030 (General Shoreline Use and Modification Regulations)

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exemption is required. Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered, or land divided without full compliance with Chapter 16.16 WCC and the program; provided, that alteration for a water-oriented use may be allowed in accordance with WCC 16.16.225(B)(3). Within shoreline jurisdiction, the regulations of Chapter 16.16 WCC shall be liberally construed together with the program to give full effect to the objectives and purposes of the provisions of the program and Act. Unless otherwise stated, critical area buffers shall be protected and/or enhanced pursuant to this program and Chapter 16.16 WCC.

Accessory uses that do not require a shoreline location shall be sited away from the land/water interface and landward of the principal use and, unless otherwise specified,

Comment [CES54]: Covered by CAO

~~A. Use of motor vehicles including unlicensed off-road vehicles is permitted only on roads or trails specifically designated for such use. Motor vehicle use, except for vessels and float planes, is prohibited waterward of the ordinary high water mark, on tidelands, public or private beaches, wetlands and/or their associated buffers, except as necessary for public health and safety or permitted maintenance activities associated with approved developments or as otherwise permitted.~~

Comment [CES55]: Moved to 23.40.030
General Shoreline Use and Modification Regulations

K. Buildings, fencing, walls, hedges, and similar features shall be designed, located, and constructed in a manner that does not preclude or significantly interfere with wildlife movement to/ or from important habitat areas consistent with the applicable provisions of Chapter 16.16 WCC this program; provided, that the administrator/Director may exempt security fencing associated with residential, industrial, and/or commercial developments from this requirement on a case-by-case basis.

Comment [CES56]: Moved to 23.40.030
General Shoreline Use and Modification Regulations

L. To provide for flexibility in the administration of the ecological protection provisions of this program, alternative mitigation approaches as provided for in WCC 16.16.2610(E) may be approved within shorelines as a conditional use where such approaches provide increased protection of shoreline ecological functions and processes over the standard provisions of this program and are scientifically supported.

M. The cumulative effects of individual development proposals shall be identified and evaluated to assure that no net loss standards are achieved. Whenever the administrator issues a determination or recommendation and/or conditions of approval on a proposal, which will result in the denial or substantial alteration of a proposed action, such determinations will be provided in writing stating the relationship(s) between the ecological factors, the proposed action and the condition(s).

Comment [CES57]: Covered by CAO

23.30.020 Critical Areas

Because of its incorporation by reference under WCC 23.10.065, the provisions of the Whatcom County critical areas regulations, Chapter 16.16 WCC, shall apply to any use, alteration or development within shoreline jurisdiction whether or not a shoreline permit or written statement of exemption is required. Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered, or land divided, without full compliance with Chapter 16.16 WCC and this program; provided, that alteration for a water-oriented use may be allowed in accordance with WCC 16.16.225. Within shoreline jurisdiction, the regulations of

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~~Chapter 16.16 WCC shall be liberally construed together with the program to give full effect to the objectives and purposes of the provisions of the program and Act.~~

Comment [CES58]: Covered by CAO

~~23.90.04030.0320~~ **Water Quality and Quantity.**

Comment [AP59]: Incorporated reference to stormwater regulations and removed redundant regs from this section.

~~A. Policies.~~

~~B. The location, construction, operation, and maintenance of all shoreline uses and developments should maintain or enhance the quantity and quality of surface and ground water over the long term.~~

~~C. Shoreline use and development should minimize the need for chemical fertilizers, pesticides or other similar chemical treatments to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values.~~

~~D. Appropriate buffers along all wetlands, streams, lakes, and marine water bodies should be provided and maintained in a manner that avoids the need for chemical treatment.~~

~~E. Regulations.~~

~~F.A. Shoreline use and development shall incorporate measures to protect and maintain surface and ground water quantity and quality in accordance with all applicable laws, including compliance with Whatcom County stormwater and drainage regulations in WCC 20.80.630 through 20.80.635.~~

~~1. Development shall meet minimum requirements 1 – 9 of the current stormwater manual, as applicable. Deviations from these standards may be approved where it can be demonstrated that off-site facilities would provide better treatment, or where common retention, detention, and/or water quality facilities meeting such standards have been approved as part of a comprehensive stormwater management plan.~~

~~2. Best management practices (BMPs) for control of erosion and sedimentation shall be implemented for all development in shorelines through an approved temporary erosion and sediment control (TESC) plan or administrative conditions.~~

~~B. To avoid water quality degradation by malfunctioning or failing septic systems located within shoreline jurisdiction, on-site sewage systems shall be located and designed to meet all applicable water quality, utility, and health standards. The owner must be in compliance with WCC 24.05.160, (Operation and Maintenance).~~

~~G.C. Septic tanks and drainfields are prohibited where public sewer is reasonably available.~~

Comment [DN60]: Relocated from the Utilities section since this applies universally.

~~H.D. All materials that may come in contact with water shall be constructed of materials, such as untreated wood, concrete, approved plastic composites, or steel, that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants from wave splash, rain, or runoff. Wood treated with creosote, copper chromium arsenic, or pentachlorophenol is prohibited in or above shoreline water-bodies.~~

~~E. Stormwater infiltration systems shall be employed to mimic the natural infiltration and ground water interflow processes where appropriate. Outfalls (including stormwater and sewer outfalls) and discharge pipes shall not be located in critical saltwater habitats or areas where outfall or discharge~~

Comment [AP61]: Removed to reduce redundancy. Already captured in stormwater regulations (WCC 20.80.630).

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will adversely affect critical saltwater habitat, unless the applicant can show that all of the following can be met:

1. There is no feasible alternative location for the outfall or pipe;
2. The outfall or pipe is placed below the surface of the beach or bed of the waterbody, except at the point of discharge;
3. The discharge point(s) on the outfall or discharge pipe is located so the discharges, including nutrients and flow, do not adversely affect critical saltwater habitats; and
4. For public sewage outfalls:
 1. The outfall discharges waterward of the intertidal zone.
 2. The disturbed area will be revegetated with native vegetation.

F. The use of existing outfalls shall be maximized to limit the need for additional outfalls, provided the existing outfall meets the standards of this section, or unless an alternatives analysis demonstrates the dispersal is less impacting to the shoreline environment.

Comment [AP62]: Added to address potential impacts from stormwater and sewer outfalls

23.05030.0430 Views and Aesthetics.

A. Policies.

- a. Shoreline use and development activities should be designed and operated to minimize obstructions of the public's visual access to the water and shoreline.
- b. Shoreline use and development should not significantly detract from shoreline scenic and aesthetic qualities that are derived from natural or cultural features, such as shoreforms, vegetative cover and historic sites/structures.
- c. Aesthetic objectives should be implemented through regulations and criteria for site planning, maximum height, setbacks, siting of buildings and accessories, screening, vegetation conservation, architectural standards, sign control regulations, appropriate development siting, designation of view corridors and maintenance of natural vegetative buffers.
- d. Clearing, thinning, and/or limbing for limited view corridors should only be allowed where it does not adversely impact ecological and/or aesthetic values, and/or slope stability. Vegetation conservation should be preferred over the creation or maintenance of views from property on the shoreline to protect shoreline ecological functions and aesthetics.

E. Regulations.

- A. When the two are in conflict, protection and/or enhancement of critical areas and their associated buffers shall be preferred over provisions for new visual access except where otherwise allowed by this program, when the two are in conflict.
- B. The following standards shall apply to developments and uses within the jurisdiction of this program:
 - B. To protect views of the shoreline from existing structures, setbacks may be modified pursuant to WCC 23.400.020(D) (Shoreline Bulk Provisions, Setbacks)
 - C. To minimize impacts to views from the water, the Director may require the planting of vegetation to mitigate the impacts.

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- 1 ~~G.D.~~ Where commercial, industrial, mixed use, multifamily, ~~and/or multi-lot unit~~ developments are
2 proposed, primary structures shall provide for reasonable view corridors between buildings.
- 3 ~~D.E.~~ Buildings shall incorporate architectural and/or landscape features that reduce scale or bulk, such as
4 setbacks, vegetation, pitched roofs, offsets, angled facets, and recesses.
- 5 ~~E.F.~~ Building surfaces on or adjacent to the water shall employ materials that minimize reflected light.
- 6 ~~F.G.~~ Building mechanical equipment shall be incorporated into building architectural features, such as
7 pitched roofs, to the maximum extent possible. Where mechanical equipment cannot be
8 incorporated into architectural features, a visual screen shall be provided consistent with building
9 exterior materials that obstructs views of such equipment.
- 10 ~~G.H.~~ Any other design standards included in community plans or regulations adopted by Whatcom
11 County shall apply.
- 12 ~~H.I.~~ Fences, walls, other than retaining walls, hedges, and other similar accessory structures, excluding
13 those associated with agricultural uses, and retaining walls necessary to protect existing primary
14 structures from erosion, landslides or other geologic hazards, shall be limited to four feet in height
15 between the ordinary high water mark and structures, and within shoreline view areas as defined in
16 WCC Chapter 23.4460 (Definitions); provided, that, within shoreline view areas, the
17 ~~administrator~~ Director may approve a greater height where a fence or other feature is parallel to the
18 right-of-way and does not extend above a line of sight between the ordinary high water mark and a
19 point three and one-half feet above the centerline of the road.
- 20 ~~I.~~ Where permitted, fences, walls, hedges and other similar structures shall be limited to four feet in
21 height within critical area buffers. Outside of critical area buffers, fences shall be limited to six feet
22 in height.
- 23 ~~J.~~ Fences, walls, hedges, or private accessory structures on public property shall not be permitted to
24 obscure shoreline views within shoreline view areas as defined in WCC Chapter 23.4460 or from
25 existing residences on adjacent property, or views from the water, unless specific findings are made
26 that the proposed view obstruction is justified by overriding considerations of the public interest.
- 27 ~~K.~~ Interior and exterior lighting shall be designed and operated to avoid illuminating nearby properties
28 or public areas; prevent glare on adjacent properties, public areas, or roadways; to avoid infringing
29 on the use and enjoyment of such areas; and to prevent hazards. Methods of controlling spillover
30 light include, but are not limited to, limits on height of structure, limits on light levels of fixtures,
31 light shields, setbacks, buffer areas, and screening.
- 32 ~~J.L.~~ Where shoreline setbacks or buffers are allowed to be reduced per this program, the proposed use
33 or development shall not be permitted to substantially obscure shoreline views within shoreline
34 view areas as defined in WCC Chapter 23.60 (Definitions) or from existing residences on adjacent
35 property.
- 36 ~~M.~~ Limbing, clearing, and/or thinning for limited view corridors shall only be allowed pursuant to WCC
37 16.16.235(B)(5) (Activities Allowed with Notification), except that view corridors are not permitted
38 in the Natural shoreline environment.
- 39 ~~K.~~ Stairs and walkways located within the shoreline or critical area buffers shall not exceed four feet in
40 width; provided, that where ADA requirements apply, such facilities may be increased to five feet in

Comment [AP63]: Added for clarity per Scoping Document, Item #17e.

Comment [DN64]: Moved to Bulk Provisions since this provision does not address Views and Aesthetics

Comment [DN65]: Moved from the former Site Planning section

Comment [AP66]: Added per Scoping Document, Item #18c.

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width. Stairways shall conform to the existing topography to the extent feasible and minimize impervious surfaces.

Comment [T67]: Removed for clarity. This is fully captured in the Shoreline Bulk Provisions.

23.00-06030.0540 Vegetation Conservation Management.

1. Pursuant to WCC 16.16.710, shorelines are designated as Fish & Wildlife Habitat Conservation Areas. Within these areas and their buffers it is important to protect and enhance vegetation to provide ecological and habitat functions as well as human health and safety. Vegetation management practices consist of retaining or improving vegetated areas to protect the integrity, functions, and values of the affected critical area (shoreline) while allowing the shoreline buffer to be modified to accommodate allowed uses when consistent with the Act and this program.

2. Vegetation management within the shoreline buffer shall adhere to the applicable regulations of WCC Chapter 16.16 (Critical Areas). In addition:

1. Vegetation clearing within shoreline jurisdiction shall be limited to the minimum necessary to accommodate approved shoreline development.

2. ~~Design of structures~~ Shoreline development shall conform to natural contours and minimize disturbance to soils and native vegetation, as feasible. Feasible shall include incorporation of trails or stairs from parking areas on steep slopes, and other design elements to lessen the need to alter natural contours and minimize soil and native vegetation disturbance. Foundations shall be tiered with earth retention incorporated into the structural design.

Comment [DN68]: Moved and modified from former Site Planning section.

3. ~~Where compliance with subsection (B)(1) of this section is not feasible or required, new~~ All shoreline developments shall be required to develop and implement a vegetation management plan. ~~When required, vegetation management plans shall be prepared by a qualified professional and shall be consistent with the requirements in WCC 16.16.260(BG) and (CH); provided, that the administrator-Director may establish prescriptive standards for vegetation conservation and management as an alternative to requiring a specific plan for a development. Vegetation management plans shall describe actions that will be implemented to ensure that buffer areas provide ecological functions equivalent to a dense native vegetation community to the extent possible given the area that is feasibly available. Required vegetation shall be maintained over the life of the use and/or development by means of a conservation easement or similar legal instrument recorded with the Whatcom County auditor.~~

3. Policies.

- a. ~~Where new developments and/or uses are proposed, native shoreline vegetation should be conserved to maintain shoreline ecological functions and/or processes and mitigate the direct, indirect and/or cumulative impacts of shoreline development, wherever feasible. Important functions of shoreline vegetation include, but are not limited to:~~
 - i. ~~Providing shade necessary to maintain water temperatures required by salmonids, forage fish, and other aquatic biota.~~
 - ii. ~~Regulating microclimate in riparian and nearshore areas.~~
 - iii. ~~Providing organic inputs necessary for aquatic life, including providing food in the form of various insects and other benthic macroinvertebrates.~~

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- iv. ~~Stabilizing banks, minimizing erosion and sedimentation, and reducing the occurrence/severity of landslides.~~
- v. ~~Reducing fine sediment input into the aquatic environment by minimizing erosion, aiding infiltration, and retaining runoff.~~
- vi. ~~Improving water quality through filtration and vegetative uptake of nutrients and pollutants.~~
- vii. ~~Providing a source of large woody debris to moderate flows, create hydraulic roughness, form pools, and increase aquatic diversity for salmonids and other species.~~
- viii. ~~Providing habitat for wildlife, including connectivity for travel and migration corridors.~~
4. ~~B. Regulations.~~
 1. ~~Shoreline developments shall comply with the vegetation conservation policies of this program through compliance with the critical area standards of WCC 16.16.335, 16.16.360, 16.16.630 and 16.16.740 for protection and maintenance of critical area and buffer vegetation.~~
 3. ~~Nonconforming lots that do not provide sufficient area to meet the standard dimensional requirements for buffers and setbacks as provided for in WCC 23.50.070(N) and are not located within a landslide, alluvial fan, or riverine and coastal erosion hazard areas, as defined in WCC 16.16.310, may employ the following standards in lieu of the vegetation management provisions of subsection (B)(2) of this section:~~
 - a. ~~An inner management zone shall extend perpendicularly from the shoreline ordinary high water mark or critical area edge a distance equal to 50 percent of the buffer dimension established for nonconforming lots in WCC 23.50.070(N). In the inner management zone:~~
 - i. ~~Lawn or turf is prohibited due to its limited functional benefits and need for chemical and fertilizer applications. Understory consisting of native groundcover and shrubs shall be provided at a sufficient density to prevent erosion, stabilize soils, and intercept surface runoff.~~
 - ii. ~~Native trees shall be provided at a sufficient density and species composition to mimic natural vegetative conditions for purposes of creating shade, attenuating water temperature, stabilizing soils, and providing large woody debris and other organic inputs critical for aquatic resources.~~
 - b. ~~An outer management zone shall extend from the outer boundaries of the inner management zone to the edge of the critical area buffer. Within the outer management zone:~~
 - i. ~~Vegetation management shall consist of the requirements of subsection (B)(3)(a) of this section; provided, that on slopes of 25 percent or less, lawn, turf, ornamental vegetation or gardens may be allowed on up to 10 percent of the area or 500 square feet, whichever is greater.~~
 - ii. ~~Lawn or turf shall be prohibited on slopes greater than 25 percent.~~
 4. ~~Vegetation clearing shall be limited to the minimum necessary to accommodate approved shoreline development.~~

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5. ~~Removal of noxious weeds and/or invasive species shall be incorporated in vegetation management plans, as necessary, to facilitate establishment of a stable community of native plants.~~
 6. ~~Clearing, pruning and revegetation of buffer areas, except landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, may be conducted in accordance with the regulations in WCC 16.16.235(5).~~
 7. ~~Selective vegetation clearing and pruning may be allowed in landslide hazard areas and/or riverine and coastal erosion hazard areas and/or their buffers pursuant to an approved vegetation management plan designed to improve overall slope or bank stability. The plan shall be prepared by a qualified professional and reviewed by a licensed geologist or geotechnical engineer.~~
 8. ~~Vegetation conservation standards shall not apply retroactively to existing uses and developments, such as existing agricultural practices.~~
 9. ~~Vegetation conservation standards do not apply to the removal of hazard trees pursuant to WCC 16.16.230(F).~~
 10. ~~Unless otherwise stated, the vegetation conservation regulations of this program do not apply to commercial forest practices as defined by this program when such activities are covered under the Washington State Forest Practices Act (Chapter 76.09 RCW), except where such activities are associated with a conversion to other uses or other forest practice activities over which local governments have authority. For the purposes of this program, preparatory work associated with the conversion of land to non-forestry uses and/or developments shall not be considered a forest practice and shall be reviewed in accordance with the provisions for the proposed non-forestry use, the general provisions of this program, and Chapter 16.16 WCC, and shall be limited to the minimum necessary to accommodate an approved use.~~
- 23.90.07030.0650 Archaeological, Historic, and Cultural Resources.**
- A. Project Approval Requirements.**
1. Upon receipt of an application for a permit, exemption, or other approval for a proposed project, the County shall determine whether the project lies within 500 feet of a site known to contain a cultural resource based on the Washington State Department of Archaeology & Historic Preservation's (DAHP) Inventory of Cultural Resources.
 2. If the project meets this criterion, a cultural resources survey and report meeting the requirements of subsection (B) shall be required.
 3. Whatcom County shall provide the cultural resource report to DAHP—and if Native American cultural resources are addressed, to the Lummi Nation Tribal Historic Preservation Office, the Nooksack Tribe, and/or other affected Native American Tribes—for a fifteen (15) day review and comment opportunity. Said review period may run concurrently with other required public review periods, such as for SEPA.
 4. Based upon consultation with DAHP and the affected Tribe(s), the Director may approve the report or reject or request revision of the conclusions reached and/or management

Comment [CES69]: Moved up.

Comment [AP70]: Moved to Forest Practices section (WCC 23.40.100).

Comment [AP71]: Section rewritten in conjunction with the LNTPO & WA State DAHP for greater clarity and streamlining.

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recommendations when the assessment is inaccurate or does not fully address the cultural resource management concerns involved.

5. If the cultural resource report identifies the presence of a cultural resource, any permit issued shall be conditioned on meeting the approved report's management recommendations.
6. Regardless of whether any cultural resources are identified or not, any activities are still subject to the state and federal regulations, including those regarding inadvertent discoveries (RCWs 68.50.645, 27.44.055, and 68.60.055).
7. Final cultural resource reports shall be filed with DAHP prior to the County's issuance of a permit, exemption, or other approval by the applicant or his/her agent. The project's cultural resource professional shall also uploading their reports and site forms to WISAARD, the state's digital repository for architectural and archaeological resources and reports maintained by DAHP.
8. Any costs associated with a cultural resource review shall be borne by the applicant.

B. Cultural Resources Report Standards.

1. Cultural resources reports shall meet the most recent "Washington State Standards for Cultural Resource Reporting" issued by DAHP (<https://dahp.wa.gov/project-review/washington-state-standards-for-cultural-resource-reporting>)
2. Cultural resources reports addressing archaeological resources shall be conducted by a professional archaeologist that meets the Secretary of the Interior Professional Qualification Standards (36 CFR Part 61). Cultural resources reports addressing historic resources shall be conducted by a qualified historic preservation professional.
3. If the cultural resource assessment identifies the presence of a cultural resource, the report must provide management recommendations that, at a minimum, conform to DAHP's most current management standards. Such recommendations will depend on the resource identified, but may include but are not limited to:
 - a. Inadvertent Discovery Plan;
 - b. On-site monitoring by a qualified professional and/or a Tribal representative;
 - c. Avoidance, by redesigning the project; or
 - d. When impacts cannot be avoided, obtaining a Cultural Resource Permit (see RCWs 27.44 and 27.53; <https://dahp.wa.gov/archaeology/archaeological-permitting>, and <https://apps.leg.wa.gov/WAC/default.aspx?cite=25-48-060>).

G. ~~A. Policies.~~

1. ~~The county should work with tribal, state, federal and local governments as appropriate to maintain an inventory of all known significant local historic, cultural and archaeological sites in observance of applicable state and federal laws protecting such information from general public disclosure. As appropriate, such sites should be protected, preserved and/or restored for study, education and/or public enjoyment to the maximum possible extent.~~
2. ~~Site development plans should incorporate provisions for historic, cultural and archaeological site preservation, restoration and education with open space or recreation areas whenever compatible and possible.~~

Comment [PDS72]: Policies moved to the C/P.

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3. Cooperation among involved private and public parties is encouraged to achieve the archaeological, historical and cultural element goals and objectives of this program.
4. Owners of property containing identified historic, cultural or archaeological sites are encouraged to make development plans known well in advance of application, so that appropriate agencies such as the Lummi Nation, Nooksack Tribe, Washington State Department of Archaeology and Historic Preservation, and others may have ample time to assess the site and make arrangements to preserve historical, cultural and archaeological values as applicable.
5. Private and public owners of historic sites should be encouraged to provide public access and educational opportunities in a manner consistent with long term protection of both historic values and shoreline ecological functions.
6. Historic, cultural and archaeological site development should be planned and carried out so as to prevent impacts to the resource. Impacts to neighboring properties and other shore uses should be limited to temporary or reasonable levels.
7. If development is proposed adjacent to an identified historic, cultural or archaeological site, then the proposed development should be designed and operated so as to be compatible with continued protection of the historic, cultural or archaeological site.
8. The cultural resource provisions of this program are consistent with Chapters 27.44 and 27.53 RCW and WAC 25-48-060. In accordance with state law, all applicants are subject to these requirements.

H. Regulations.

A. Known Archaeological, Historic, and Cultural Resources.

- i. Upon receipt of application for a shoreline permit or request for a statement of exemption for development on properties within 500 feet of a site known to contain an historic, cultural, or archaeological resource(s), the county shall require a cultural resource site assessment; provided, that the provisions of this section may be waived if the administrator determines that the proposed development activities do not include any ground disturbing activities and will not impact a known historic, cultural, or archaeological site. The site assessment shall be conducted by a professional archaeologist or historic preservation professional, as applicable, to determine the presence of significant historic or archaeological resources. The fee for the services of the professional archaeologist or historic preservation professional shall be paid by the landowner or responsible. The applicant shall submit a minimum of five copies of the site assessment to the administrator for distribution to the applicable parties for review.
- ii. If the cultural resource site assessment identifies the presence of significant historic or archaeological resources, a cultural resource management plan (CRMP) shall be prepared by a professional archaeologist or historic preservation professional, as applicable. The fee for the services of the professional archaeologist or historic preservation professional shall be paid by the landowner or responsible party. In the preparation of such plans, the professional archaeologist or historic preservation professional shall solicit comments from the Washington State Department of Archaeology and Historic Preservation, the Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe. Comments received shall be incorporated into the

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conclusions and recommended conditions of the CRMP to the maximum extent practicable. The applicant shall submit a minimum of five copies of the CRMP to the administrator for distribution to the applicable parties for review.

a. A CRMP shall contain the following minimum elements:

- i. The purpose of the project; and
- ii. A site plan for proposed on-site development; and
- iii. Depth and location of all ground disturbing activities including, but not limited to, utilities, driveways, clearing, and grading; and
- iv. An examination of project on-site design alternatives; and
- v. An explanation of why the proposed activity requires a location on, or access across and/or through, a significant historic or archaeological resource; and
- vi. A description of the historic/archaeological resources affected by the proposal; and
- vii. An assessment of the historic/archaeological resource and an analysis of the potential adverse impacts as a result of the activity; and
- viii. An analysis of how these impacts have been avoided, or w
- ix. Where avoidance is not possible, how these impacts have been mitigated/minimized; and

x. A recommendation of appropriate mitigation measures, which may include but are not limited to the following:

- A. Recording the site with the State Department of Archaeology and Historic Preservation, or listing the site in the National Register of Historic Places, Washington Heritage Register, as applicable, or any locally developed historic registry formally adopted by the Whatcom County council;
- B. Preservation in place;
- C. Re-interment, in the case of grave sites;
- D. Covering an archaeological site with a nonstructural surface to discourage pilferage (e.g., maintained grass or pavement);
- E. Excavation and recovery of archaeological resources;
- F. Inventorying prior to covering of archaeological resources with structures or development; and
- G. Monitoring of construction excavation.

xi. An outline of actions to be taken by the property owner, developer, archaeologist, or historic preservation professional, as applicable, in the event that an inadvertent discovery of historic, cultural, or archaeological sites or artifacts occurs during site development, which includes the following:

- A. A statement that work on that portion of the development site shall be stopped immediately and the find reported as soon as possible to the administrator and other appropriate governments and agencies.
- B. Contact information for applicable parties, agencies, and governments including the county administrator, the Washington State Department of Archaeology and

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- 1 Historic Preservation, Lummi Nation Tribal Historic Preservation Office, Nooksack
2 Tribe, professional archaeologist or historic preservation professional; and in the
3 event of inadvertent discovery of human remains, additional contact information
4 for the Whatcom County Sheriff's office, Whatcom County Medical Examiner,
5 and/or Lummi Repatriation Office.
- 6 C. ~~Proposed measures to stabilize, contain, or otherwise protect the area of~~
7 ~~inadvertent discovery until a site investigation and/or site assessment is~~
8 ~~conducted.~~
- 9 xii. ~~Where provision of public access for the purpose of public education related to a~~
10 ~~private or publicly owned building or structure of historic significance is desired by the~~
11 ~~property owner, a public access management plan shall be developed in consultation~~
12 ~~with the Washington State Department of Archaeology and Historic Preservation,~~
13 ~~Lummi Nation Tribal Historic Preservation Office, Nooksack Tribe, and/or other~~
14 ~~agencies, as appropriate, to address the following:~~
- 15 A. ~~The type and/or level of public access that is consistent with the long term~~
16 ~~protection of both historic resource values and shoreline ecological functions and~~
17 ~~processes; and~~
- 18 B. ~~Site and resource specific conditions and/or improvements including the~~
19 ~~following, as applicable:~~
- 20 (1) ~~Hours of operation;~~
21 (2) ~~Interpretive and/or directional signage;~~
22 (3) ~~Lighting;~~
23 (4) ~~Pedestrian access, and/or~~
24 (5) ~~Traffic and parking.~~
- 25 xiii. ~~Where provision of public access for purposes of public education related to an~~
26 ~~archaeological or cultural resource site is desired by the property owner, the~~
27 ~~Washington State Department of Archaeology and Historic Preservation, Lummi~~
28 ~~Nation Tribal Historic Preservation Office, Nooksack Tribe, and/or other agencies, as~~
29 ~~appropriate, shall be in agreement prior to providing public access to the site. An~~
30 ~~access and resource management plan shall be developed in consultation with the~~
31 ~~Washington State Department of Archaeology and Historic Preservation, the Lummi~~
32 ~~Nation Tribal Historic Preservation Office, and the Nooksack Tribe.~~
- 33 b. ~~The recommendations and conclusions of the CRMP shall be used to assist the administrator~~
34 ~~in making final administrative decisions concerning the presence and extent of historic/~~
35 ~~archaeological resources and appropriate mitigating measures. The administrator shall~~
36 ~~consult with the Washington State Department of Archaeology and Historic Preservation,~~
37 ~~Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe prior to approval of~~
38 ~~the CRMP.~~

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- 1 ~~e. The administrator may reject or request revision of the conclusions reached in a CRMP~~
2 ~~when the administrator can demonstrate that the assessment is inaccurate or does not fully~~
3 ~~address the historic/archaeological resource management concerns involved.~~
4 ~~d. Upon receipt of a complete development permit application in an area of known historic/~~
5 ~~archaeological resources, the county shall notify and request a recommendation from~~
6 ~~appropriate agencies such as the Washington State Department of Archaeology and Historic~~
7 ~~Preservation, the Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe.~~
8 ~~Recommendations of such agencies and other affected persons shall be duly considered and~~
9 ~~adhered to whenever possible and reasonable. Notification shall include the following~~
10 ~~information:~~
11 ~~i. The date of application, the date of notice of completion for the application, and the~~
12 ~~date of the notice of application;~~
13 ~~ii. A site map including the street address, tax parcel number, township, range, and section~~
14 ~~of the proposed project area;~~
15 ~~iii. A description of the proposed project action and a list of the project permits included in~~
16 ~~the application, and, if applicable, a list of any studies requested by the cCounty;~~
17 ~~iv. The identification of other permits not included in the application to the extent known~~
18 ~~by the cCounty;~~
19 ~~v. The identification of existing environmental documents that evaluate the proposed~~
20 ~~project and, if not otherwise stated on the document providing notice of application,~~
21 ~~the location where the application and any studies can be reviewed;~~
22 ~~vi. Any other information determined appropriate by the cCounty;~~
23 ~~vii. A statement indicating those development regulations that will be used for project~~
24 ~~mitigation or a determination of consistency if they have been identified at the time of~~
25 ~~notice;~~
26 ~~viii. A statement of the limits of the comment period and the right of each agency to~~
27 ~~comment on the application within a 15-day time period, request a copy of the decision~~
28 ~~once made, and to appeal a decision when allowed by law.~~
29 ~~e. In granting shoreline permits or statements of exemption for such development, the~~
30 ~~cCounty may attach conditions to provide sufficient time and/or conditions for consultation~~
31 ~~with the Washington State Department of Archaeology and Historic Preservation, Lummi~~
32 ~~Nation Tribal Historic Preservation Office, and Nooksack Tribe, and to assure that historic/~~
33 ~~archaeological resources are properly protected, or for appropriate agencies to contact~~
34 ~~property owners regarding purchase or other long-term arrangements. Provision for the~~
35 ~~protection and preservation of historic/archaeological sites shall be incorporated to the~~
36 ~~maximum extent practicable. Permit or other requirements administered by the~~
37 ~~Washington State Department of Archaeology and Historic Preservation pursuant to~~
38 ~~Chapters 27.44 and 27.53 RCW may apply in addition.~~

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~~B. Inadvertent Discovery.~~

- ~~1. Whenever historic, cultural, or archaeological sites or artifacts are discovered in the process of development on shorelines, work on that portion of the development site shall be stopped immediately, the site secured, and the find reported as soon as possible to the administrator. Upon notification of such find, the property owner shall notify the Washington State Department of Archaeology and Historic Preservation, Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe, and the administrator shall conduct a site investigation to determine the significance of the discovery. Based upon the findings of the site investigation and consultation with the Washington State Department of Archaeology and Historic Preservation, Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe, the administrator may require that an immediate site assessment be conducted or may allow stopped work to resume.~~
- ~~2. If a site assessment is required, the area of inadvertent discovery shall be stabilized, contained, or otherwise protected until the site assessment and/or CRMP is completed. The site assessment shall be prepared pursuant to subsection (B)(1)(a) of this section to determine the significance of the discovery and the extent of damage to the resource and shall be distributed to the Washington State Department of Archaeology and Historic Preservation, the Lummi Nation Tribal Historic Preservation Office, and Nooksack Tribe for a 15-day review period or, in the case of inadvertent discovery of human remains, a 30-day review period to determine the significance of the discovery. If the site has been determined not to be significant by the above-listed agencies or governments, or if the above-listed agencies or governments have failed to respond within the applicable review period following receipt of the site assessment, such stopped work may resume.~~
- ~~3. Upon receipt of a positive determination of a site's significance, the administrator may invoke the provisions of subsections (B)(1)(b) through (d) of this section for a cultural resource management plan, if such action is reasonable and necessary to implement related SMP objectives.~~

~~C. The requirements of subsection (B)(1) of this section do not apply where an applicant/project proponent has obtained an approved archeological excavation and removal permit from the Washington State Department of Archaeology and Historic Preservation pursuant to WAC 25-48-060; provided, that the applicant must adhere to the requirements of said approved permit.~~

23.90.080 30.0760 Public Access.

~~a. Policies.~~

- ~~i. Use and development that provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state are a preferred use.~~
- ~~ii. Physical or visual access to shorelines should be incorporated in all new development when the development would either generate a demand for one or more forms of such access, and/or would impair existing legal access opportunities or rights. Public health and safety concerns should also be adequately addressed and maintenance of shoreline ecological functions and/or~~

Comment [AP73]: Removed several provisions below that are beyond WAC requirements.

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- processes should be assured. As required by the governing principles, all such conditions should be consistent with all relevant constitutional and other legal limitations on regulation of private property.
- iii. ~~Public access should be provided for water-oriented uses and non-water dependent uses and developments that increase public use of the shorelines and public aquatic lands, or that would impair existing, legal access opportunities.~~
 - iv. ~~Non-water related uses or activities located on the shoreline should provide public access as a public benefit.~~
 - v. ~~Public access area and/or facility requirements should be commensurate with the scale and character of the development and should be reasonable, effective and fair to all affected parties including but not limited to the land owner and the public.~~
 - vi. ~~Public access design should provide for public safety and minimize potential impacts to private property, individual privacy, and shoreline ecological functions and processes.~~
 - vii. ~~Shoreline development by public entities, such as local governments, port districts, state agencies, and public utility districts, should provide public access measures as part of each development project, unless such access is shown to be incompatible due to reasons of safety, security, or impact to the shoreline.~~
- b. ~~Regulations.~~
- A. ~~In the review of~~ All shoreline substantial development, shoreline conditional use permits, or developments of more than four residential lots or dwelling units, ~~consideration of shall provide~~ public access ~~shall be required, subject to the test stated in subsection (A)(2) of this section.~~ When appropriate, provisions for adequate public access shall be incorporated into such proposals, including land division. An applicant shall not be required to provide public access if the decision-maker determines that one or more of the following conditions apply unless the applicant/proponent demonstrates that one or more of the following provisions apply:
- 1. ~~Unavoidable health or safety hazards to the public exist that cannot be prevented by any practical means;~~
 - 2. ~~Inherent security requirements of the use cannot be satisfied through the application of alternative design features or other solutions;~~
 - 3. ~~1. The cost of providing the access, easement, alternative amenity, or mitigating the impacts of public access is unreasonably disproportionate to the total long-term cost of the proposed development;~~
 - 4. ~~Significant environmental impacts will result from the public access that cannot be mitigated;~~
 - ~~Significant undue and unavoidable conflict between any access provisions and the proposed use and/or adjacent uses would occur and cannot be mitigated.~~
 - ~~The parcel is separated from the water by an existing developed road or an additional parcel that serves to create a distinct break in connectivity to the shoreline.~~
 - ~~Other reasonable and safe opportunities for public access to the shoreline are located within one-quarter mile of the proposed development site.~~

Comment [CES74]: Deleted, as WAC 173-26-221 does not list cost.

Comment [DOE-Req75]: Required Change – This change deletes this new exception to consideration of public access as it is overly prescriptive and inconsistent with the SMP Guidelines at WAC 173-26-221(4). Direct connectivity is not a requirement to accomplish proportionate public access. Public access includes the ability of the general public to reach, touch and enjoy the water's edge, travel on the waters of the state, and to view the water from adjacent locations [WAC 173-26-211(4)(a)]. Visual access to the shoreline is not necessarily precluded due to the presence of a developed road or additional parcel between the subject development and the shoreline.

Comment [DOE-Req76]: Required Change – This change deletes this new exception to consideration of public access as it is inconsistent with the SMP Guidelines at WAC 173-26-211(4). Increased development within shoreline areas can provide a nexus for the need for increased locations and forms of public access proportionate to such impacts.

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2. ~~The proposed development has already been considered as site is part of a larger development project that has previously provided public access as part of the development permitting process.~~

3. ~~The proposed development is for the subdivision of property into four or fewer parcels.~~

4. ~~The proposed development consists of only agricultural activities.~~

5. ~~Provision of public access on the site would pose a health or safety risk to the public due to the nature of the proposed use or activity or the location of public access, or would be infeasible due to security requirements associated with the proposed development.~~

6. ~~Provision of public access at the proposed development site would result in a net loss of shoreline ecological function that cannot be effectively mitigated or avoided, or would pose a risk to threatened and/or endangered species listed under the Endangered Species Act.~~

5-7. ~~The proposal consists solely of a new or expanded utility crossing through shoreline jurisdiction, serving development located outside shoreline jurisdiction, provided that no adverse impacts to existing public access result.~~

B. ~~When provisions for public access are required as a condition of project approval, the administrator shall prepare written findings, pursuant to Chapter 23.60 WCC, demonstrating consistency with the principles of nexus and proportionality and the test stated in subsection (A)(2) of this section and WCC 23.50.080(A).~~

C-B. ~~Prior to deciding public access is not required pursuant to subsection (B)(1)(a) through (e) of this section, the county must determine that all reasonable alternatives have been exhausted; including, but not limited to:~~

1. ~~Regulating access by such means as maintaining a gate and/or limiting hours of use;~~
2. ~~Designing separation of uses and activities (e.g., fences, terracing, use of one-way glazing, hedges, landscaping, etc.); and~~
3. ~~Providing for access at a site geographically separated from the proposal such as a street end, vista, tideland, or trail system.~~

D. ~~Public access shall not be required for the following uses except as determined on a case-by-case basis in conjunction with the provisions of subsection A of this section and this subsection B:~~

1. ~~Single family residential development of four or fewer lots.~~
2. ~~Dredging.~~
3. ~~Forest practices.~~
4. ~~Landfill and excavation.~~
5. ~~Mining.~~
6. ~~Private docks serving four or fewer dwelling units.~~
7. ~~Instream structures.~~
8. ~~Shoreline stabilization.~~
9. ~~Ecological restoration or enhancement activities not associated with development when the purpose of the project would be undermined.~~
10. ~~Agriculture.~~

Comment [DOE-Req77]: Required Change – This change is necessary to ensure consistency with the SMP Guidelines at WAC 173-26-221(4) and clarifies the applicability of this exemption only if it had previously been analyzed through a broader development review such as a Planned Unit Development or other similar process.

Comment [CES78]: Combined existing text w/ WAC 173-26 -221 text.

Comment [DOE-Req79]: Required Change – Utility development is not specifically exempted from the requirement to consider public access in the SMP Guidelines. The proposed change modifies this new exemption to require public access considerations if impacts to existing forms of public access provide such a nexus.

Comment [DOE-Req80]: Section restored. Required Change – This additional language added to the end of 23.60.060.A restores existing language proposed for deletion. The change is necessary for consistency with the SMP Guidelines at 173-26-221(4)(d)(B) which requires consideration of alternative methods of providing access when potential conflicts are identified with traditional forms of access.

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- 1 | B. Public access shall consist of a dedication of land or a physical improvement in the form of a
2 | walkway, trail, bikeway, corridor, viewpoint, park, deck, observation tower, pier, boat launching
3 | ramp, dock or pier area, or other area serving as a means ~~of to~~ view and/or physically approach ~~to~~
4 | public waters, and may include interpretive centers and displays.
- 5 | C. Where public access planning as described in WAC 173-26-221(4)(c) demonstrates that a more
6 | effective public access system can be achieved through alternate means, such as focusing public
7 | access at the most desirable locations, the County may institute master program provisions for
8 | public access based on that approach in lieu of uniform site-by-site public access requirements.
- 9 | D. Where there is an irreconcilable conflict between water-dependent shoreline uses or physical public
10 | access and the maintenance of views from adjacent properties, the water-dependent uses and
11 | physical public access shall have priority.
- 12 | E. Alternate off-site provision of public access to shorelines may be used upon approval, as a means of
13 | offsetting identifiable on-site impacts. If public access is demonstrated to be infeasible or
14 | inappropriate on site due to significant interference to operations or hazards to life and property,
15 | alternative visual access opportunities ~~may be provided at a location not directly adjacent to the~~
16 | ~~water~~ (such as a viewpoint, observation tower, or other areas serving as a means to view public
17 | waters (such as an interpretive center and displays explaining maritime history and industry) may be
18 | provided at a location not directly adjacent to the water; provided, that visual access to the water is
19 | provided.
- 20 | F. Public access provided by shoreline street ends, public utilities, and rights-of-way shall not be
21 | diminished (RCW 35.79.035 and 36.87.130).
- 22 | ~~F-G.~~ Shoreline development by public entities shall include public access measures as part of each
23 | development project.
- 24 | H. Development shall be located, designed, and managed so that impacts on public use of the
25 | shoreline are minimized.
- 26 | I. Public access shall incorporate the following location and design criteria:
- 27 | 1. Where open space is provided along the shoreline, and public access can be provided in a
28 | manner that will not adversely impact shoreline ecological functions and/or processes, a public
29 | pedestrian access walkway parallel to the ordinary high water mark of the property is preferred.
30 | The walkway shall be buffered from sensitive ecological features and provide limited and
31 | controlled access to sensitive features and the water's edge where appropriate. Fencing may be
32 | provided to control damage to plants and other sensitive ecological features and where
33 | appropriate. Trails shall be constructed of permeable materials and limited to five feet in width
34 | to reduce impacts to ecologically sensitive resources.
- 35 | 2. Public access shall be located adjacent to other public areas, accesses and connecting trails,
36 | connected to the nearest public street; and include provisions for differently-abled persons
37 | where feasible.
- 38 | 3. Where views of the water or shoreline are available and physical access to the water's edge is
39 | not present or appropriate, a public viewing area shall be provided.

Comment [CES81]: Language from WAC

Comment [AP82]: Added for consistency with
WAC 173-26-221(4)(d)

Comment [DN83]: Moved from the Site
Planning section.

Comment [DOE-Req84]: Section resorted.
Required Change – This change restores existing
standards necessary for meaningful implementation
of the public access requirements as required by the
SMP Guidelines at WAC 173-26-222(4)(d)(iii).

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4. Design shall minimize intrusions on privacy by avoiding locations adjacent to windows and/or outdoor private open spaces or by screening or other separation techniques.
5. Design shall provide for the safety of users, including the control of offensive conduct through public visibility of the public access area, or through provisions for oversight. The administrator may authorize a public access to be temporarily closed in order to develop a program to address offensive conduct. If offensive conduct cannot be reasonably controlled, alternative facilities may be approved through a permit revision.
6. Public amenities appropriate to the use of a public access area such as benches, picnic tables and sufficient public parking to serve the users shall be provided.
7. Commercial developments that attract a substantial number of persons and developments by government/public entities may be required to provide public restrooms, facilities for disposal of animal waste and other appropriate public facilities.
8. The minimum width of public access easements shall be 10 feet, unless the administrator determines that undue hardship would result. In such cases, easement widths may be reduced only to the extent necessary to relieve the hardship.
9. The requirement for public access on a specific site may be fulfilled by:
 - a. Participation in a public access plan incorporated in the program; or
 - b. Provision of facilities specified in a permit approval.
10. Required public access sites shall be fully developed and available for public use at the time of occupancy of the use or activity or in accordance with other provisions for guaranteeing installation through a monetary performance assurance.
11. Public access facilities shall be maintained over the life of the use or development. Future actions by successors in interest or other parties shall not diminish the usefulness or value of required public access areas and associated improvements.
12. Public access provisions shall run with the land and be recorded via a legal instrument such as an easement, or as a dedication on the face of a plat or short plat. Such legal instruments shall be recorded with the county auditor's office prior to the time of building permit approval, occupancy or plat recordation, whichever comes first.
13. Maintenance of the public access facility shall be the responsibility of the owner unless otherwise accepted by a public or nonprofit agency through a formal agreement recorded with the county auditor's office.
14. Public access facilities shall be available to the public 24 hours per day unless specific exceptions are granted though the shoreline permit process subject to the provisions of subsection (B)(1) of this section.
15. The standard state-approved logo or other approved signs that indicate the public's right of access and hours of access shall be installed and maintained by the owner. Such signs shall be posted in conspicuous locations at public access sites.
16. Incentives for public access improvements such as density or bulk and dimensional bonuses shall be considered through applicable provisions of zoning and subdivision regulations.
- ~~23.290.090 Site planning.~~

Comment [DN85]: All non-repetitive regulations have been moved, so this section is no longer necessary.

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Policies.

Development and use should be designed in a manner that directs land alteration to the least sensitive portions of the site to maximize vegetation conservation; minimize impervious surfaces and runoff; protect riparian, nearshore and wetland habitats; protect wildlife and habitats; protect archaeological, historic and cultural resources; and preserve aesthetic values. This may be accomplished by minimizing the project footprint, the use of clustering and other appropriate design approaches.

Low impact and sustainable development practices such as rain gardens, and pervious surfacing methods including, but not limited to, porous paving blocks, porous concrete and other similar materials should be incorporated in developments where site conditions allow to maintain shoreline ecological functions and processes. Topographic modification, vegetation clearing, use of impervious surfaces and alteration of natural drainage or other features should be limited to the minimum necessary to accommodate approved uses and development. An engineering geologist should be consulted prior to using infiltration practices on shore bluffs.

Accessory development or use that does not require a shoreline location should be located outside of shoreline jurisdiction unless such development is required to serve approved water-oriented uses and/or developments. When sited within shoreline jurisdiction, uses and/or developments such as parking, service buildings or areas, access roads, utilities, signs and storage of materials should be located inland away from the land/water interface and landward of water-oriented developments and/or other approved uses.

Development should be located, designed, and managed so that impacts on shoreline or upland uses are minimized through bulk and scale restrictions, setbacks, buffers, and control of proximity impacts such as noise or light and glare.

Shoreline uses should not deprive other uses of reasonable access to navigable waters. Public recreation activities such as fishing, clam digging, swimming, boating, and wading, and water-related recreation should be preserved and enhanced. The rights of treaty tribes to resources within their usual and accustomed areas should be accommodated.

Regulations.

Where appropriate new development shall use clustering to minimize adverse impacts on shoreline ecological functions and processes.

An assessment of the existing ecological functions and/or processes provided by topographic, physical and vegetation characteristics of the site shall accompany development proposals; provided, that proposals for single-family residences shall be exempt from this requirement.

Such assessments shall include the following general information:

Impacts of the proposed use/development on ecological processes with clear designation of existing and proposed routes for water flow, wildlife movement and other features.

Infrastructure requirements such as parking, services, lighting and other features, together with the effects of those infrastructure improvements on shoreline ecological functions and/or processes.

Comment [DN86]: Moved to Ecological Protection and Critical Areas Section (WCC 23.30.020).

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Vehicle and pedestrian circulation systems shall be designed to minimize clearing, grading and alteration of topography and natural features. Roadway and driveway alignment shall follow the natural contours of the site and minimize width to the maximum extent feasible. Elevated walkways should be utilized to cross wetlands.

Impervious surfacing for parking lot/space areas shall be minimized through the use of alternative surfaces where feasible, consistent with the May 2005 Low Impact Development Technical Guidance Manual for Puget Sound.

Utilities shall be located within roadway and driveway corridors and rights-of-way wherever feasible.

Design of structures should conform to natural contours and minimize disturbance to soils and native vegetation. Foundations shall be tiered with earth retention incorporated into the structure.

Stormwater infiltration systems shall be employed to mimic the natural infiltration and ground water interflow processes where appropriate.

Fencing, walls, hedges and similar features shall be designed in a manner that does not preclude or significantly interfere with wildlife movement to/from important habitat areas.

Accessory uses that do not require a shoreline location shall be sited away from the land/water interface and landward of the principal use and, unless otherwise specified, shall observe critical area regulations and buffers in Chapter 16.16 WCC.

Development shall be located, designed, and managed so that impacts on public use of the shoreline are minimized.

Public recreation activities such as fishing, clam digging, swimming, boating, and wading, and water-related recreation shall be protected through specific provisions to avoid impacts, or provide access as applicable.

Interior and exterior lighting shall be designed and operated to avoid illuminating nearby properties or public areas, prevent glare on adjacent properties, public areas or roadways to avoid infringing on the use and enjoyment of such areas, and to prevent hazards. Methods of controlling spillover light include, but are not limited to, limits on height of structure, limits on light levels of fixtures, light shields, setbacks, buffer areas and screening.

All facilities shall be located and designed to avoid impediments to navigation and to avoid depriving other properties of reasonable access to navigable waters. Review and approval by the U.S. Coast Guard may be required as a condition of issuance of building or development permits to assure compliance. All in-water structures shall be marked and lighted in compliance with U.S. Coast Guard regulations.

All shoreline use and development shall provide setbacks from adjacent properties in accordance with WCC Table 23.90.130(C). Setbacks shall be of adequate width to attenuate proximity impacts such as noise, light and glare, and may address scale and aesthetic impacts.

Fencing or landscape areas may be required to provide a visual screen.

Comment [DN87]: Moved to Transportation Section for Shoreline Uses and Modifications (WCC 23.40.190).

Comment [CES88]: Moved to Utilities section.

Comment [DN89]: Moved to 23.30.040 Vegetation Management.

Comment [DN90]: Moved to Water Quality section

Comment [AP91]: Removed to reduce redundancy. This is fully captured in the General Regulation provisions for Ecological Protection and Critical Areas (WCC 23.30.020).

Comment [DN92]: Moved to Ecological protection and critical areas section.

Comment [DN93]: Moved to the Public Access section

Comment [DN94]: This is more applicable as a policy rather than a regulation and is already included as a policy above under former subsection (A)(5).

Comment [DN95]: Moved to Views and Aesthetics 23.30.030

Comment [DN96]: Moved to both the Boating facilities and the Moorage sections.

Comment [DN97]: This is more of a policy rather than a regulation and is already included above under former subsection (A)(4). Dimensional standards already implement such a policy so this additional regulation is not necessary.

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Chapter ~~23.100~~23.40 Shoreline Use and Modification Regulations

Comment [AP98]: This chapter has been moved from later in the document (previously number 23.100).

~~23.100.010~~ 23.40.010 Shoreline Use and Development Modification.

- A. All uses and modifications in shoreline areas shall be subject to the policies and regulations of this program.
- B. Table 1. Shoreline Use by Environment Designation generally sets forth the permissible uses within the respective shoreline environment designations in the county. It should be read in close conjunction with the definitions in Chapter 23.60 (Definitions) and the other provisions in this program. The contents of Table 1 provisions are subject to limitations, conditions, and exceptions listed under of each of the categories of this chapter. Such text modifies the requirements of Table 14, and in the event there is a conflict between the use(s) identified in Table 23.100.010 Table 14 and the policies or regulations, the policies and regulations shall prevailapply.
- C. Shoreline use and development shall be classified by the administratorDirector and regulated under one or more of the following applicable sections of WCC Chapter 23.10023.40 (Shoreline Use and Modification Regulations). Unless otherwise stated, all use and development shall also comply with all of the general policies and regulations of Chapter 23.90 WCC and, if applicable, the policies of Chapter 23.40 WCC. A proposed development may contain different types of uses and/or modifications, and may be classified under and be subject to multiple categories (e.g., a marina may fall under and be subject to Marinas, Moorage, Commercial, and Industrial, depending on what is proposed).
- D. ~~(b) In the Aquatic;~~ shoreline environment designation, only water-dependent uses shall be allowedonly, subject to the use and development regulations of the abutting upland shoreline areaenvironment designation.

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Table 1. WCC Table 23.100.010^(a)

Table 1. Shoreline Use by Environment Designation

Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
Agriculture										
Agriculture – General	P ⁽⁺⁾	X	P ⁽⁺⁾	P ⁽⁺⁾	P ⁺	P	P	P⁽⁺⁾	X	P
Liquid Manure Storage Facilities and Spreading	X	X	X	X	P	P	P	X	X	X
Animal Feeding Operations and Confined Animal Feeding Operations (AFOs/CAFOs)	X	X	X	X	P	P	P	X	X	X
Aquaculture										
Aquaculture – General	P	P ⁽⁺⁾	P	P ⁽⁺⁾	P ⁽⁺⁾	P	P	P⁽⁺⁾	P⁽⁺⁾ see upland	P
Commercial Salmon Net Pen Facilities	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	X
Commercial Geoduck Aquaculture	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C⁽⁺⁾	C
Marinas and Launch Ramps/Boating Facilities										
Marinas, including accessory structures	P	P	C	P	P	P⁽⁺⁾	C	X	P⁽⁺⁾ see upland	X
Launch ramps – Marina	P	P	P⁽⁺⁾	P	P	P⁽⁺⁾	P⁽⁺⁾	X ⁽⁺⁾	P⁽⁺⁾ see upland	X
Launch ramps – Public	P	P	P	P	P	P	P	X/P⁽⁺⁾	see upland	P
Launch ramps – Residential	X	X	X	X	X	X	X	X	see upland	X
Accessory Structures	P⁽⁺⁾	P⁽⁺⁾	C	P⁽⁺⁾	P⁽⁺⁾	P⁽⁺⁾	C	X	see upland	

Comment [CES99]: Making consistent w/ policies for Natural

Comment [CES100]: Making consistent w/ policies for Natural

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
Covered Over-Water Structures	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P ⁺ (+)	P(+)
Commercial										
Water-Dependent Commercial	P	P [*]	C [*]	P	P	P [*]	C [*]	X	see upland	P
Water-oriented-Related and Water-Enjoyment Commercial	P	P ⁺ (+)	C ⁺ (+)	P	P	P ⁺ (+)	C ⁺ (+)	X	X ⁽⁺⁾	P
Non-Water-Oriented Commercial	C	C ⁽⁺⁾	C ⁽⁺⁾	C	C	C ⁺ (+)	C ⁽⁺⁾	X	X	C
Dredging and Dredge Material Disposal										
Dredging	C	C	C	C	C	C	C	X/P ⁽⁺⁾	C ⁽⁺⁾	X/C ⁽⁺⁾
Maintenance Dredging	P	P	P	P	P	P	P	P	P [*]	P [*]
Dredge Material Disposal	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	X ⁽⁺⁾	P
Essential Public Facilities										
	C	C	C	C	C	C	C	X	C	C
Landfill and Excavation										
	P ⁺ C	P ⁺ C	P ⁺ C	P ⁺ C	P ⁺ C	P ⁺ C	P ⁺ C/P ⁺ C	X ⁽⁺⁾	C ⁽⁺⁾ /X ⁺	X/C ⁽⁺⁾
Flood Control-Hazard Reduction and Instream Structures										
Flood Hazard Reduction Control and Instream Structures – General	P	P	P	P	P	P	P	X	see upland	P

Comment [CES101]: Updated to comply with WAC 173-26-231(3)(c), which requires a CUP for fill waterward of the OHWM.

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
Channelization or Dams for Hazard Reduction Flood Control	P	P	X	P	C	C	X	X	see upland ^P	P
Forest Practices										
Outside of shorelines of statewide significance	X P	X P	X P	X P	P	P	P	C ⁽⁺⁾	see upland X	P
Within shorelines of statewide significance	C	C	C	C	C	C	C	C	C	C
Industrial and Port										
Water-Dependent Industrial and Port Development	P	X	X	X	P*	P/C*	X	X	see upland	P
Water-oriented-Related and Water-Enjoyment Industrial and Port development	P	X ⁽⁺⁾	X	X	P ⁽⁺⁾	P ⁽⁺⁾ / C*	X	X	P / C ⁽⁺⁾	P ⁽⁺⁾
Existing legal fossil-fuel refinery operations or existing legal fossil fuel transshipment facilities	P	X	X	X	P	C	X	X	C	P
Expansion of existing legal fossil-fuel refinery operations or expansion of existing legal fossil fuel transshipment facilities	P	X	X	X	P	C	X	X	C	C
New or expansion of existing legal renewable fuel refinery operations or renewable fuel	P	X	X	X	P	C	X	X	C	C

Comment [CES102]: Amended to be consistent w/ WAC 173-26-241(3)(e)

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
transshipment facilities										
Non-Water-Oriented Industrial and Port Development	C	X	X	X	C	C ⁺	X	X	X	X
Terminals for Passenger-Only Vessels	P	P	X	X	P	P	X	X	see upland	C
In-Water Log Storage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C ⁺	X
Dams, Diversion, and Tailrace Structures for Hydroelectric Power Generation	C	X	C	C	C	C	C	X	see upland	X
Institutional										
	C	C	C	C	C	C	C	X	X	X
Land Division										
Boundary Line Adjustments and Lot Consolidation	P	P	P	P	P	P	P	X	X	P
Short Plats	P	P	P	P	P	P	P	X	X	P
Subdivisions	P	P	P	P	P	P	P	X	X	P
Mining										
Mining – General	X	X	X	X	C	C	C	X	C ⁺ +X*	C
Surface oil or gas drilling	X	X	X	X	X	X	X	X	X	X
Moorage Structures: Docks, Piers, and Mooring Buoys										
Private Individual Deck Moorage (other than	P	C	P	P	P	P	P	X	see upland	X

Comment [CES103]: Inserted per Council's pending draft fossil fuel amendments.

Comment [CES104]: Moved to Utilities

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
mooring buoys) – Freshwater										
Private Individual Deck Moorage (other than mooring buoys) – Marine	P	C	C	P	P	P	C	X	see upland	X
Private Shared Deck Moorage	P	C	P	P	P	P	P	X	see upland	X
Private and Shared Moorage	P	C	P(+)/C(+)	P	P	P	P(+)/C(+)	X(+)	P	
Public Moorage (other than mooring buoys)	C	C	C	C	C	C	C	X(+)	see uplandP	X
Commercial Moorage (other than mooring buoys)	C	X(+)	C	C	C	C	C	X(+)	see uplandP	X
Industrial Moorage (other than mooring buoys)	C	X	X	X	C	C	X	X(+)	see uplandP	Existing: P(+) New: X
Covered Moorage Accessory to Permitted Moorage	CP	CP	X	CP	X	X	X	X	see uplandP	C
Float Plane Moorage Accessory to Permitted Moorage	C	C	C	C	C	C	C	X	see uplandP	C
Recreational Mooring Buoys	P	P	P	P	P	P	P	X	see upland	XP
Recreational										
Water-Oriented Recreation	P	P	P(+)	P	P	P(+)	P(+)	P(+)	P(+)/C(+)	P(+)

Comment [CES105]: Inserted per Council's pending draft fossil fuel amendments.

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
Non-Water-Oriented Recreation	P	P	C	P	C	C	C	C	X	X
Residential										
Single-Family	P	P	P ⁽⁺⁾ /C	P	P	P ⁽⁺⁾	P ⁽⁺⁾ /C	C ⁽⁺⁾ /X/C ⁽⁺⁾	X	X ^P
Duplex	P	P	P	P	P	P	P	X	X	X
Multi-Family	P	P	C	P	P	X	C	X	X	X
Over-Water Residences	X	X	X	X	X	X	X	X	X	X
Restoration and Enhancement										
	P	P	P	P	P	P	P	P	P	P
Shoreline Stabilization*										
Groins	C ⁽⁺⁾ X	C ⁽⁺⁾ X	X	C ⁽⁺⁾ X	C ⁽⁺⁾ X	C ⁽⁺⁾ X	X	X	C ⁽⁺⁾ X	X
Breakwaters and Jetties	C ⁽⁺⁾	C ⁽⁺⁾	C ⁽⁺⁾ /X	C ⁽⁺⁾	C ⁽⁺⁾	C ⁽⁺⁾	C ⁽⁺⁾ /X	X	C ⁽⁺⁾	C ⁽⁺⁾ /X
Bulkheads and Revetments	P ⁽⁺⁾	P ⁽⁺⁾	C ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	P ⁽⁺⁾	C ⁽⁺⁾	X ⁽⁺⁾	X ⁽⁺⁾	C ⁽⁺⁾
Drift Sills	P	P	C	P	P	P	C	X	See upland	C
Gabions	X/C*	X/C*	X/C*	X/C*	X/C*	X/C*	X/C*	X	X	X/C*
Revetments	X/C*	X/C*	X/C*	X/C*	X/C*	X/C*	X/C*	X	X*	X/C*
Bioengineering Approaches & other Soft-Shore Measures	P	P	P	P	P	P	P	P ⁽⁺⁾	P ⁽⁺⁾	P
Signs										
	P	P	P	P	P	P	P	X ⁽⁺⁾	P ⁽⁺⁾	P

Comment [AP106]: Added new categories/rows to provide greater clarity.

Comment [CES107]: Changed to prohibited in favor of using drift sills, which is an added modification, below.

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Shoreline Uses	Shoreline Area Environment Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic ^(b)	Cherry Point Mgmt Area
Transportation										
Transportation Facilities serving a specific approved use*	P	P	P(+)	P	P	P	P(+)	X ⁽⁺⁾	P(+)/-C*(+)	P(+)
Transportation Facilities not serving a specific approved use*	C	C	X	C	C	C	X	X	C	X
Utilities										
Accessory Utilities	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
Local Utilities distribution facilities	<u>P(+)</u>	<u>P(+)</u>	<u>P(+)/-C*(+)</u>	<u>P(+)</u>	<u>P(+)</u>	<u>P(+)</u>	<u>P(+)/-C*(+)</u>	X ⁽⁺⁾	<u>P(+)/-C*(+)</u> <u>C*(+)/-X*</u>	<u>P(+)</u>
Regional transmission facilities	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	X ⁽⁺⁾	<u>C(+)/-X*</u>	<u>C(+)</u>
Desalinization Facilities	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	<u>C(+)</u>	X ⁽⁺⁾	<u>C(+)</u>	<u>C(+)</u>
Dams, Diversion, and Tailrace Structures for Hydroelectric Power Generation	<u>C</u>	<u>X</u>	<u>C</u>	<u>C</u>	<u>C</u>	<u>C</u>	<u>C</u>	<u>X</u>	see upland	<u>X</u>

P = Permitted, may be subject to policies and regulations of this program and subject to shoreline substantial development permit requirements.

C = Shoreline conditional use, subject to policies and regulations of this program and may be subject to shoreline substantial development permit requirements.

(-) Subject to limitations.

(+) Subject to conditions.

X = Prohibited.

N/A = Not applicable.

* = Refer to the regulations under this use and modification category for certain caveats.

Comment [AP108]: Revised per Scoping Document, Item #17i.

Comment [CES109]: Moved from Industrial and Port

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(*) Subject to exceptions.

(a) In the event that there is a conflict between the use(s) identified in Table 23.1040.010 and the policies or regulations in Chapters 23.230, 23.390, or 23.4100 WCC, the policies and regulations shall apply.

(b) Aquatic: Water dependent use only, subject to the use and development regulations of the abutting upland shoreline area designation.

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23.4100.020 Shoreline Bulk Provisions – Buffers, Setbacks, Height, Open Space and Impervious Surface Coverage.

~~A. Policies. Standards for density, setbacks, height, and other provisions should ensure no net loss of shoreline ecological functions and/or processes and preserve the existing character of the shoreline consistent with the purpose of the shoreline area designation.~~

~~B. Regulations.~~

A. ~~Table 2. Bulk Regulations for Shoreline Development.~~ Table of Bulk Regulations. ~~WCC Table 23.90.130(C)~~ establishes the minimum required dimensional requirements for development, uses, and activities including all structures and substantial alteration of natural topography. Dimensional standards relating to critical areas are governed by the provisions of WCC Chapter 16.16. Dimensional standards specified in this program shall not exceed the geographic limit of the Act's jurisdiction. Additional standards may be established in WCC, Chapter ~~23.100~~ 23.40 (Shoreline Use and Modification Policies and Regulations).

~~B. Where the bulk provisions of other County regulations (e.g., Title 20, Zoning) differ, the stricter shall apply.~~

~~A.C.~~ All measurements except height and area shall be measured outward on the horizontal plane and in the direction that results in the greatest dimension from property lines, or from other features specified.

~~A. Except as otherwise stated, the Whatcom County Comprehensive Plan, zoning regulations, critical areas regulations, flood control regulations, subdivision regulations, health regulations and other adopted regulatory provisions apply within shoreline jurisdiction. In the event the provisions of this program conflict with provisions of other county regulations, the more protective of shoreline resources shall prevail.~~

~~B. All use and development activities shall conform to all applicable plans, policies, standards, guidelines and regulations of other agencies with jurisdiction in shoreline areas.~~

D. Setbacks.

1. Setbacks shall be pursuant to Table 2; except as allowed by subsection (D)(2).

2. **Common-Line Setback for Single-Family Residences.** ~~For the purpose of accommodating views to be adequate and similar, but not necessarily equivalent, for new residences while protecting predominant shoreline views of the water from legally existing primary residences in developed residential areas, the shoreline buffer (setback) may be modified for primary residential structures in the Urban, Shoreline Residential, and Rural environments (only), consistent with the following. The presence of nearby shacks, sheds, or dilapidated structures does not constitute the existence of a residence, nor can such structures be used to determine a common-line setback.~~

a. ~~Where there are legally established single-family residential primary structures within 150 feet on both sides of the proposed residence, the setback shall be determined as the greater of either:~~

i. A common line drawn between the nearest corners of the foundation closest to the sideyard property line of the proposed residence to each adjacent residence, or

Comment [AP110]: Moved from the General Regulations section (previously WCC 23.90.130).

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Comment [CES111]: Incorporated from former Appendix F of Title 23.

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Comment [DOE-Req112]: Required Change. – This change restores the existing language to apply the common-line setback provisions only to existing structures within 50-feet of a proposed residence. The amendment record contains no justification to extend this distance to 150-feet, which is most cases is two to three times the width of most existing lots where view these provisions would apply. The No Net Loss analysis related to this change does not take into consideration the increase in applicability if these setback reductions county-wide by increasing the distance from 50-feet to 100-feet.

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- ii. A common line calculated by the average of both adjacent residences' existing setbacks.
 - b. Where there is a legally established single-family residential primary structure within 150 feet on only one side of the proposed residence, the common line setback shall be determined as the greater of either:
 - i. A common line drawn between nearest corner of the foundation closest to the sideyard property line of the proposed residence to the adjacent residence and the nearest point of the standard buffer on the adjacent vacant lot, or
 - ii. A common line calculated by the average of the adjacent residence's setback and the standard buffer for the adjacent vacant lot.
 - c. When the use of a common-line setback is allowed, compliance with buffer width reduction and mitigation pursuant to WCC 23.30.010 (Ecological Protection) shall be required.
 - d. In no case shall development be located waterward of the common-line setback or a minimum of 50 feet from the ordinary high water mark, unless approved to be closer as part of a constrained lot review WCC 23.40.170(B).
 - e. The lot shall not be subject to landslide hazard areas, or riverine or coastal erosion hazard areas or associated buffers (see WCC 16.16.310).
 3. Sideyard setbacks shall be measured from all property lines that intersect the shore side of a lot or tract; provided, that for development not requiring a wider shoreline buffer, five feet of the total required sideyard setbacks may be provided on one side and the balance on the other side.
 1. and provided further, that, for a single family residence or duplex on a nonconforming lot that does not provide sufficient area to meet the standard dimensional requirements for buffers and setbacks, the nonconforming provisions of WCC 23.50.070 apply.
- B-E. Height.** Table 2 23.90.130(C) establishes the maximum allowed building height for all primary and accessory structures within the shoreline jurisdiction. Height is measured according to the definition in WCC 23.60.080(7)~~110~~; provided, that:
1. provided further, that, pursuant to RCW 90.58.320, and except as allowed by subsections (2 - 4) of this section, no permit may be issued for any new or expanded building or structure more than 35 feet above average grade level that will obstruct the view of a substantial number of residences on or adjoining such shorelines except where the program does not prohibit such development and only when overriding considerations of the public interest will be served. The applicant/proponent shall be responsible for providing sufficient information to the administrator to determine that such development will not obstruct the view of a substantial number of residences on or adjoining such shorelines whether this standard is met.
 2. In the Urban Resort shorelines designation only, commercial and multifamily unit residential development more than 100 feet from the ordinary high water mark may exceed the standard height limit, up to a maximum height of 75 feet when approved with through a shoreline conditional use permit, up to a maximum height of 75 feet; provided, that specific location design and other conditions may be imposed to meet the policies and regulations of this program;

Comment [DOE-Req113]: Required Change – This change restores the existing language to apply the common-line setback provisions only to existing structures within 50-feet of a proposed residence. The amendment record contains no justification to extend this distance to 150-feet, which is most cases is two to three times the width of most existing lots where view these provisions would apply. The No Net Loss analysis related to this change does not take into consideration the increase in applicability if these setback reductions county-wide by increasing the distance from 50-feet to 100-feet.

Comment [DOE-Req114]: Required Change – This change is necessary for consistency with the referenced constrained lot provisions found at WCC 23.40.170.c.4. This section states that consideration shall be given to view impacts in accordance with the common-line setback standards of 23.40.020.d.2. The change eliminates an endless loop to where the two provisions continue to refer to one another without resolve, and clarifies that new residential development should not be allowed waterward of existing development through either process.

Comment [CES115]: Shouldn't this be "is not"?

Comment [DOE-Req116]: Required Change – This change adds the same standard found in the constrained lot provisions at 23.40.170.B.5. In no case should the common line setback be used that would place a single-family residence within a hazardous area.

Comment [DN117]: Now covered by nonconforming lot section (23.50.030)

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3. In the Urban Resort shoreline environment designation, lodging developments over 35 feet in height may be allowed. However, due to the potential for adverse impacts upon adjacent uses and the community from such development, special consideration must be given to the following factors during review of such proposals:
 - a. Urban services, including sanitary sewers, public water supply, fire protection, storm drainage, and police protection, must be provided at adequate levels to protect the public health, safety, and welfare.
 - b. Circulation, parking areas, and outdoor storage or loading areas should be adequate in size and designed so that the public safety and local aesthetic values are not diminished. Such areas should be screened from open space areas by landscaping, fences or similar structures, or grade separation.
 - c. Recreational needs of building clientele must be provided for through on-site recreation facilities and access to shorelines. The variety and number of on-site recreation facilities should increase proportionately as density increases.
 4. In the Cherry Point Management Area, cranes, gantries, mobile conveyors, light standards, and similar equipment necessary for the functions of water-dependent uses or the servicing of vessels may extend above the applicable maximum height limit provided in Table 1, provided that such structures shall be designed to minimize view obstruction.
 5. Residential accessory structures that are not waterward of the primary structure may be built to the maximum height for the environment designation.
- F. **Open Space.** Open space shall be provided for certain types of development, use, or activities. The amount of open space, as a percentage of lot coverage, shall be as provided in Table 2, below.
- G. **Uses Allowed in Buffers and Setbacks.** The following development activities are not subject to ~~be~~ allowed in buffers and setbacks; provided, that they are constructed and maintained in a manner that minimizes adverse impacts on shoreline functions and processes; and provided further, that they comply with all the applicable regulations in WCC Chapter 16.16, including mitigation:
1. Those portions of approved private water-dependent development or public water-oriented development that require a location waterward of the ordinary high water mark of streams, rivers, lakes, ponds, marine shorelines, associated wetlands, and/or within their associated buffers.
 2. Accessory and uUnderground utilities.
 3. Necessary power poles and transmission towers are not subject to height limits but shall not be higher than necessary to achieve the intended purpose.
 4. Modifications to existing development that are necessary to comply with environmental requirements of any state or federal agency, when otherwise consistent with this program; provided, that the decision maker determines that the facility cannot meet the dimensional standard and accomplish the purpose for which it is intended and the facility is located, designed, and constructed to meet specified dimensional standards to the maximum extent feasible, and the modification is in conformance with the provisions of Chapter WCC 23.50.070 (Nonconforming Uses, Structures, and Lots) ~~for nonconforming development and uses.~~

Comment [CES118]: Moved from 23.40.040 (Commercial)

Comment [CES119]: Added to accommodate equipment necessary for operations of permitted uses.

Comment [CES120]: Moved up from below

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5. Roads, railways, and other essential public facilities that must cross shorelines and are necessary to access approved water-dependent development.
6. Stairs and walkways no greater than four feet in width and no higher than ~~for~~ 18 inches in height above grade, except for railings; provided, that where ADA requirements apply, such facilities may be increased to five feet in width and the height requirement may be waived to provide for site-specific ADA compliance. Stairways shall conform to the existing topography to the extent feasible and minimize impervious surfaces.
7. Shared moorages ~~shall not be subject to sideyard setbacks~~ when located on or adjacent to a property line shared in common by the project proponents and where appropriate easements or other legal instruments have been executed providing for ingress and egress to the facility.
8. Retaining walls or similar slope stabilization structures, when associated with an approved shoreline use or development consistent with the provisions of this program and demonstrated to be necessary for the approved use or development through a geotechnical analysis.
9. Where permitted, fences, walls other than those allowed by 23.70.020(G)(8) above~~retaining walls~~, hedges and other similar structures shall be limited to four feet in height within shoreline setbacks and six feet in height outside of shoreline setbacks; provided, that the Director may exempt security fencing from this requirement as required by federal or state regulations.
10. Signs.
 - a. On publicly owned park properties, interpretive, wayfinding, and park identification signs.
 - b. Signage required by state or federal security requirements.
11. Passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails; provided, that all the criteria in WCC 23.40.160(A)(6) (Recreation) are met.
12. ~~Residential accessory structures that are not waterward of the primary structure may be built to the maximum height for the designation.~~ Accessory sStructures. as allowed by 16.16.720(G)(4) Habitat Conservation Areas – Use and Modification. When located in the shoreline jurisdiction, residential water-oriented recreational accessory structures—such as a boat equipment storage shed, an small uncovered boat storage rack, a fire pit, and a pathway leading to the shoreline—may be permitted in an HCA buffer; provided,
 - a. Such structures are located as far from the shoreline as feasible and on previously-impacted buffer areas;
 - b. The maximum area, inclusive of existing lawfully-established accessory structures, They shall be limited to 10% of the buffer’s area or 500 square feet, whichever is less;
 - c. No more than 20% of the linear length of shoreline is occupied by a building or structure;
 - d. Individual structures shall be limited to a total footprint area of 100-square feet and 10-feet in height; and
 - e. The shoreline is 75% or at ratios outlined in WCC 16.16.760, whichever is greater, planted (or replanted) with native vegetation to a minimum depth of 15 feet landward from the ordinary high water mark.

Comment [AP121]: Revised per Parks comment (Scoping Document Items #13b, 13c, and 14a)

Comment [AP122]: Added per Scoping Document, Item #17e.

Comment [AP123]: Added for clarity per Scoping Document, Item #17e.

Comment [AP124]: Added per Scoping Document, Item #16b.

Comment [AP125]: Revised per Scoping Document, Item #13d.

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- f. This provision shall not apply to residential developments authorized using the constrained lot provisions of WCC 23.40.150(B).
- 13. Residential structures which share a common wall with the primary structure shall be considered an extension of the primary structure (i.e., an attached garage) and may be built to the maximum height for the designation.
- 14. Height limits contained in this program for accessory structures in the Rural, Resource, or Conservancy shoreline environments, accessory structures that are 150 feet or greater from the OHWM of the Nooksack or Sumas Rivers may be built to the maximum height for the designation. shall not apply within shoreline jurisdiction of the Nooksack and Sumas Rivers beyond 150 feet from the OHWM.

Comment [DOE-Req126]: Required Changes – These changes are required for consistency with the SMP Guidelines governing principle that SMP regulations must be designed to achieve no net loss of ecological functions (WAC 173-26-186(8)). The changes add appropriate sideboards to allow a limited and predictable list of common residential developments that may be located within regulated buffers. The changes include more emphasis on the required mitigation sequence including avoidance, minimization and mitigation of impacts to buffers [WAC 173-26-201(2)(e)]

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Table 2. Bulk Regulations for Shoreline Development ~~WCC Table 23.30.120(C) Buffer, Setbacks, Height, Open Space, and Impervious Surface Coverage Standards for Shoreline Development~~

Shoreline Uses	Shoreline Environment Area-Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic	Cherry Point Mgmt Area
Agriculture										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040 Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3)	20'	N/A	20'	20'	20'	20'	20'	N/A	N/A	20'
Maximum Height Limit ^(4,5) (a/b)	35'	N/A	35' / 35'	35' / 35'	35' / 35'	35' / 35'	35' / 35'	N/A	N/A	35'
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Aquaculture										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040 Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3)	10'	10'	10'	10'	10'	10'	15'	N/A	N/A	20'
Maximum Height ^(4,5) Height Limit (a/b)	25' / 35'	25' / 35'	20' / 30'	25' / 35'	20' / 30'	20' / 30'	15' / 25'	N/A	10'	20' / 30'
Open Space %	30%	40%	50%	30%	50%	50%	60%	N/A	N/A	30%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Commercial										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040 Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3,6)	5'+	5'+	10'+	10'+	10'+	10'+	15'+	N/A	N/A	15'
Maximum Height ^(4,5) Height Limit (a/b/g)	25' / 35'	25' / 35'	20' / 30'	25' / 35'	20' / 30'	20' / 30'	15' / 25'	N/A	15'	35'
Open Space % (c/d)	30% / 15%	40% / 20%	60% / 30%	30% / 15%	50% / 25%	50% / 25%	60% / 30%	N/A	N/A	30% / 15%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Boating Facilities- Marinas and Launch Ramps										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040 Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									

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Shoreline Uses	Shoreline <u>Environment Area-Designation</u>									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic	Cherry Point Mgmt Area
Side Setback ^(2,3)	10'	10'	10'	10'	10'	10'	15'	N/A	N/A	20'
Maximum Height ^(4,5) Height Limit (a/b)	25' / 35'	25' / 35'	25' / 35'	25' / 35'	20' / 25'	20' / 25'	15' / 25'	N/A	N/A	25' / 35'
Open Space % (c/d)	15%	30%	50%	15%	30%	30%	50%	N/A	N/A	15%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Mining										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3)	N/A	N/A	N/A	N/A	50'	50'	100'	N/A	N/A	50'
Open Space %	N/A	N/A	N/A	N/A	50%	50%	50%	N/A	N/A	50%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Industrial and Port Development										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3)	30'	10'	30'	30'	40'	40'	60'	N/A	N/A	40'
Maximum Height ⁽⁵⁾ Height Limit (a/b)	35' / 35'	15' / 25'	20' / 30'	35' / 35'	25' / 35'	25' / 35'	25' / 35'	N/A	20'	25' / 35'
Open Space %	30%	40%	60%	30%	50%	50%	60%	N/A	N/A	30%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Land Division										
Shoreline Buffer ⁽¹⁾	Per Shoreline Buffer Standards in WCC 23.30.040									
Side Setback ^(2,3)	Based on shoreline use									
Maximum Height ⁽⁵⁾ (a/b)	Based on shoreline use									
Open Space %	30%	40%	50%	30%	50%	50%	60%	N/A	N/A	30%
Impervious Surface Coverage	Per the underlying zone, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone, WCC Title 20.		
Recreation										

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Shoreline Uses	Shoreline <u>Environment</u> Area-Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic	Cherry Point Mgmt Area
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Side Setback ^(2,3)	10'	10'	15'	10'	15'	15'	20'	20'	N/A	20'
Maximum Height ^(4,5) Height Limit (a/b)	25' / 35'	25' / 35'	20' / 35'	25' / 35'	20' / 35'	20' / 35'	15' / 25'	10' / 15'	15'	20' / 35'
Open Space % (c/d)	30% / 25%	40% / 40%	50% / 60%	30% / 25%	50% / 60%	50% / 60%	60% / 75%	95%	N/A	30% / 25%
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Residential – Single-Family and Duplex										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Maximum Density ⁽⁶⁾	6:1 ac-	22:1 ac-	6:1 ac-	6:1 ac-	1:1 ac-	1:20 ac-	1:1 ac-	N/A	N/A	1:1 ac
Side Setback ^(2,3)	5'	5'	10'	5'	10'	10'	15'	15'	N/A	20'
Maximum Height ^(4,5) Height Limit (a/b)	30' / 30'	30' / 30'	30' / 35'	30' / 30'	30' / 35'	30' / 35'	30' / 35'	30' / 35'	N/A	30' / 35'
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		
Residential – Multifamily (3 – 6 units)										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Maximum Density ⁽⁶⁾	6:1 ac.	22:1 ac.	6:1 ac.	6:1 ac.	1:1 ac.	1:20 ac.	1:1 ac.	N/A	N/A	N/A
Side Setback ^(2,3,6) (e/f)	5'+	5'+	15'+	5'+	15'+	15'+	20'	N/A	N/A	N/A
Maximum Height ^(4,5) Height Limit (a/b/g)	30' / 40'	30' / 40'	30' / 35'	30' / 40'	30' / 35'	30' / 35'	30' / 35'	N/A	N/A	N/A
Open Space %	30%	40%	60%	30%	50%	50%	60%	N/A	N/A	N/A
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		N/A
Residential – Multifamily (7+ units)										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter 16.16 WCC, Buffers									
Maximum Density ⁽⁶⁾	6:1 ac-	22:1 ac-	6:1 ac-	6:1 ac-	1:1 ac-	1:20 ac-	1:1 ac-	N/A	N/A	N/A

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Shoreline Uses	Shoreline Environment Area-Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic	Cherry Point Mgmt Area
▲Side Setback ^(2,3,6) (e/f)	5'→	5'→	15'→	5'→	15'→	15'→	20'	N/A	N/A	<u>N/A</u>
▲Maximum Height ^(4,5) Height Limit (a/b/g)	30' / 40'	30' / 40'	30' / 35'	30' / 40'	30' / 35'	30' / 35'	30' / 35'	N/A	N/A	<u>N/A</u>
Open Space	30%	40%	50%	30%	50%	50%	60%	N/A	N/A	<u>N/A</u>
Impervious Surface Coverage	Per the underlying zone-district, WCC Title <u>20</u> .					◆◆ 10% ⁽⁹⁾	◆◆ 10% ⁽⁹⁾	Per the underlying zone-district, WCC Title <u>20</u> .		<u>N/A</u>
Residential – Decks and Accessory Structures										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter <u>16.16</u> WCC, Buffers									
▲Side Setback ^(2,3)	5'	5'	10'	5'	10'	10'	15'	15'	N/A	
▲Height Limit ⁽⁴⁾	15'	15'	15'	15'	15'	15'	15'	15'	N/A	
Transportation Facilities										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter <u>16.16</u> WCC, Buffers									
Signs										
▲Shoreline Buffer ^(1,7) Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter <u>16.16</u> WCC, Buffers									
▲Side Setback ^(1,2,3)	5'	5'	10'	5'	10'	10'	15'	N/A	N/A	<u>10'</u>
▲Maximum Height ^(4,5) Height Limit (a/b)	10' / 15'	10' / 15'	6' / 10'	10' / 15'	6' / 10'	6' / 10'	6' / 10'	N/A	10'	<u>6' / 10'</u>
Utilities										
Shoreline Buffer ⁽¹⁾ Setback	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance, Chapter <u>16.16</u> WCC, Buffers									
▲Side Setback ^(1,2,3)	5'	5'	10'	5'	10'	10'	15'	N/A	N/A	<u>10'</u>
▲Maximum Height ^(4,5) Height Limit (a/b)	20' / 35'	20' / 35'	20' / 20'	20' / 35'	20' / 20'	20' / 20'	20' / 20'	N/A	N/A	<u>20' / 20'</u>
Open Space %	30%	40%	60%	30%	50%	50%	60%	N/A	N/A	<u>50%</u>
Impervious Surface Coverage	Per the underlying zone-district, WCC Title <u>20</u> .					◆◆ 10% ⁽⁹⁾	◆◆ 10% ⁽⁹⁾	Per the underlying zone-district, WCC Title <u>20</u> .		
All Other Development										
Shoreline Buffer ⁽¹⁾	Per Shoreline Buffer Standards in WCC 23.30.040Per Whatcom County Critical Areas Ordinance,									

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Shoreline Uses	Shoreline Environment Area Designation									
	Urban	Urban Resort	Urban Conservancy	Shoreline Residential	Rural	Resource	Conservancy	Natural	Aquatic	Cherry Point Mgmt Area
Setback	Chapter 16.16 WCC, Buffers									
*Side Setback ^(2,3)	10'	10'	10'	10'	15'	15'	20'	N/A	N/A	
*Maximum Height ^(4,5) Height Limit (a/b)	25' / 35'	25' / 35'	25' / 35'	20' / 30'	20' / 30'	20' / 30'	20' / 30'	N/A	N/A	
Open Space %	30%	40%	60%	30%	50%	50%	60%	N/A	N/A	
Impervious Surface Coverage	Per the underlying zone-district, WCC Title 20.					10% ⁽⁹⁾	10% ⁽⁹⁾	Per the underlying zone-district, WCC Title 20.		

Footnotes:

(1) = Water dependent development shall have a buffer of zero feet. Unless specifically exempted from setback requirements in WCC 23.40.020, minimum required setbacks for permanent freestanding signs are 50 feet from the OWHM where not subject to critical areas or buffers. Other non-water dependent uses that may be allowed within the shoreline buffer are identified in WCC 23.40.020(G).

(2) = Roof overhangs or other architectural features shall not project further than 18 inches into the side setbacks.

(3) = A side setback of 5 feet applies to residential decks and accessory structures 15 feet tall or less.

(4) = Maximum height for accessory structures is 15 feet, except as provided in WCC 23.40.020(E).

(5) = Maximum height is as shown, except as provided in WCC 23.40.020(E).

(6) = Add five feet of setback for each five feet of height over 15 feet.

(7) = See WCC 23.40.200 (Signs) for additional allowances and restrictions.

(8) = Maximum allowable development density shall be calculated pursuant to the applicable underlying zone district, per WCC Title 20; provided, that maximum allowable density in dwelling units/acre shall not exceed the density ratios identified above. Density shall be calculated based on the total area of the parent parcel including those areas located outside of shoreline jurisdiction. Submerged lands and/or tidelands within the boundaries of any waterfront parcel that are located waterward of the ordinary high water mark shall not be used in density calculations.

(9) = Where the maximum total impervious surface percentage does not allow 2,500 square feet of total impervious surface area, 2,500 square feet shall be allowed.

(a/b) = "a" Applies to structures within 100 feet of OHWM or wetland edge;

"b" Applies to structures more than 100 feet from OHWM or wetland edge.

(c/d) = "c" Applies to development that includes overnight lodging;

"d" Applies to development that does not include overnight lodging.

(e/f) = "e" Applies to structures not more than 35 feet high;

"f" Applies to structures more than 35 feet high.

~~g~~ = Height limit may be increased to 75 feet via conditional use permit – see WCC 23.00.120(B)(5).

* = Add five feet of setback for each five feet of height over 15 feet.

* = Maximum height for accessory buildings is 15 feet.

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~~** = See WCC 23.100.140(B)(10) through (14).~~

~~* = Roof overhangs or other architectural features shall not project further than 18 inches into the side yard setbacks.~~

~~◇ = Maximum allowable development density shall be calculated pursuant to the applicable underlying zone district, per WCC Title 20; provided, that maximum allowable density in dwelling units/acre shall not exceed the density ratios identified above. Density shall be calculated based on the total area of the parent parcel including those areas located outside of shoreline jurisdiction. Submerged lands and/or tidelands within the boundaries of any waterfront parcel that are located waterward of the ordinary high water mark shall not be used in density calculations.~~

~~◇◇ = Where the maximum total impervious surface percentage does not allow 2,500 square feet of total impervious surface area, 2,500 square feet shall be allowed.~~

N/A = Not applicable.

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23.40.030 General Shoreline Use and Modification Regulations

- A. Proposed uses and developments shall limit the number and extent of shoreline modifications.
- B. Shoreline uses and developments that are water-dependent shall be given priority. Permit conditions may limit the range of uses or sites developed for such uses.
- ~~B.C.~~ Interim non-water-dependent uses authorized as a shoreline conditional use may be allowed to respond to short-term market conditions; provided, that permit conditions are placed on such uses to provide for a specific timetable or review process to ensure water-dependent use of the development in the long term.
- ~~C.D.~~ Shoreline uses and developments shall be located, designed, and managed so that other appropriate uses are neither subjected to substantial or unnecessary adverse impacts, nor deprived of reasonable, lawful use of navigable waters, other publicly owned shorelines, or private property.
- ~~D.E.~~ Navigable waters shall be kept free of obstructions for the general benefit of the region, state, and nation. No use or development shall be allowed to effectively exclude other appropriate uses from navigable waters.
- F. Shoreline uses and developments shall be located in a manner so that shoreline stabilization is not likely to become necessary in the future.
- G. Accessory uses and structures that do not require a shoreline location shall be sited away from the land/water interface and not placed waterward of the principal use unless otherwise allowed by this Program.
- ~~E.H.~~ Nothing in the policies or regulations may be construed as to impinge on tribal treaty rights exercised within usual and accustomed areas.
- I. No flood control works or instream structures shoreline use or development may commence without the proponent/developer having obtained all applicable federal, state, and local permits and approvals, including but not limited to a Hydraulic Permit Application (HPA) from the State Department of Fish and Wildlife.
- J. Use of motor vehicles including unlicensed off-road vehicles is permitted only on roads or trails specifically designated for such use. Motor vehicle use, except for vessels and float planes, is prohibited waterward of the ordinary high water mark, on tidelands, public or private beaches, wetlands and/or their associated buffers; except as necessary for public health and safety or permitted maintenance activities associated with approved developments or as otherwise permitted.
- K. Buildings, fencing, walls, hedges, and similar features shall be designed, located, and constructed in a manner that does not preclude or significantly interfere with wildlife movement to or from important habitat areas consistent with the applicable provisions of this program; provided, that the Director may exempt security fencing associated with residential, industrial, and/or commercial developments from this requirement on a case-by-case basis.

Comment [CES127]: From WAC 173-26-231(2)(b)

Comment [DN128]: Moved from the General Regulations section since this pertains specifically to uses and mods.

Comment [DOE-Req129]: Recommended Change – The added language clarifies that there are exceptions to this general regulation (See 16.16.720.G.4)

Comment [CES130]: Moved from 23.90.030 Ecological Protection

Comment [AP131]: Moved from Aquaculture section.

Comment [AP132]: Moved and revised to apply more universally.

Comment [CES133]: Moved from 23.90.030 30.010 Ecological Protection

Comment [CES134]: Moved from 23.90.030 30.010 Ecological Protection

23.4100.030-040 Agriculture.

- A. Policies.

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1. ~~This program recognizes the importance of agriculture in Whatcom County and supports its continued economic viability. This program allows for ongoing agricultural activities and should protect agricultural lands from conflicting uses such as intensive or unrelated residential, industrial or commercial uses, while also maintaining shoreline ecological functions and processes.~~
2. ~~Agricultural uses and development in support of agricultural uses should be conducted in such a manner as to assure no net loss of shoreline ecological functions and processes and avoid substantial adverse impacts on other shoreline resources and values.~~
3. ~~Conversion of agricultural uses to other uses should comply with all policies and regulations for nonagricultural uses.~~

~~B. Regulations.~~

A. General.

1. Agricultural activities within shorelines are governed by the critical areas regulations in WCC Chapter 16.16, including the conservation program on agricultural lands (CPAL) provided for in therein WCC 16.16.290.
2. ~~Accessory uses and buildings shall observe critical area buffer requirements as defined in (see WCC Chapter 16.16); except that utility development associated with an approved agriculture activity or development may encroach on critical area buffers where it can be demonstrated that the proposed utility development is essential to the agriculture activity or development and that such development complies with the general provisions of WCC Chapter 16.16; such utilities shall be placed underground where feasible.~~
3. ~~Intentional discharge of any manure storage facility into ground or surface water is prohibited.~~
4. ~~Feedlots are prohibited in critical areas and their buffers as defined in (see WCC Chapter 16.16).~~
5. ~~Conversion of agricultural uses to other uses shall comply with the provisions of WCC Chapter 16.16 and this program for the proposed use.~~

B. Regulations for Specific Shoreline Environment Designations.

1. ~~In the Natural shoreline environment, only low-intensity agricultural activities are permitted; provided, that the use does not expand or alter agricultural practices in a manner inconsistent with the purpose of this designation.~~

~~C. Shoreline Area Regulations.~~

1. ~~Urban. Agricultural activities are permitted subject to policies and regulations of this program, except that new liquid manure storage facilities and liquid manure spreading are not permitted.~~
2. ~~Urban Resort. New agricultural activities are prohibited.~~
3. ~~Urban Conservancy. Agricultural activities are permitted subject to policies and regulations of this program, except that new animal feeding operations/concentrated animal feeding operations (AFO/CAFOs) are not permitted.~~
4. ~~Shoreline Residential. Agricultural activities are permitted subject to policies and regulations of this program, except that new liquid manure storage facilities and liquid manure spreading are not permitted.~~
5. ~~Rural. Agricultural activities are permitted subject to policies and regulations of this program.~~

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6. ~~Resource. Agricultural activities are permitted subject to policies and regulations of this program.~~
7. ~~Conservancy. Agricultural activities are permitted subject to policies and regulations of this program.~~
8. ~~Natural. Low intensity agricultural activities are permitted subject to policies and regulations of this program; provided, that the use does not expand or alter agricultural practices in a manner inconsistent with the purpose of this designation. All other agricultural activities are prohibited.~~
- ~~Aquatic. New agricultural activities are prohibited. Farming of fin fish, shellfish and management of other aquatic products are subject to the policies and regulations for aquaculture under WCC 23.100.030.~~

23.4100.040-050 Aquaculture.

Aquaculture in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.

Nothing in these policies or regulations may be construed as to impinge on tribal treaty rights exercised within usual and accustomed areas. See also the policy in subsection (A)(8) of this section and the regulation in subsection (B)(1)(u) of this section.

A. Policies.

- A. ~~Aquaculture is a water dependent use and, when consistent with control of pollution and avoidance of adverse impacts to the environment and preservation of habitat for resident native species, is a preferred use of the shoreline (WAC 173-26-241(3)(b)).~~
- B. ~~Potential locations for aquaculture activities are relatively restricted because of specific requirements related to water quality, temperature, oxygen content, currents, adjacent land use, wind protection, commercial navigation, and salinity. The technology associated with some forms of aquaculture is still experimental and in formative states. Therefore, some latitude should be given when implementing the regulations of this section; provided, that potential impacts on existing uses and shoreline ecological functions and processes should be given due consideration.~~
- C. ~~Preference should be given to those forms of aquaculture that involve lesser environmental and visual impacts and lesser impacts to native plant and animal species. In general, projects that require no structures, submerged structures or intertidal structures are preferred over those that involve substantial floating structures. Projects that involve little or no substrate modification are preferred over those that involve substantial modification. Projects that involve little or no supplemental food sources, pesticides, herbicides or antibiotic application are preferred over those that involve such practices.~~
- D. ~~Community restoration projects associated with aquaculture should be reviewed and permitted in a timely manner.~~
- E. ~~Aquaculture activities should be designed, located and operated in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological functions~~

Comment [CES135]: Addressed in use table now.

Comment [CES136]: Most amendments shown herein are to make this section consistent w/ WAC 173-26-241(3)(b)

Comment [AP137]: Moved to Use and Mods General Regs

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and processes. Aquaculture should not be permitted where it would result in a net loss of shoreline ecological functions; adversely affect the quality or extent of habitat for native species including eelgrass, kelp, and other macroalgae; adversely impact other habitat conservation areas; or interfere with navigation or other water-dependent uses.

F. Aquaculture that involves significant risk of cumulative adverse effects on water quality, sediment quality, benthic and pelagic organisms, and/or wild fish populations through potential contribution of antibiotic resistant bacteria, or escapement of nonnative species, or other adverse effects on ESA-listed species should not be permitted.

G. The county should actively seek substantive comment on any shoreline permit application for aquaculture from all appropriate federal, state and local agencies; the Lummi Nation, Nooksack Tribe, and other affected tribes; and the general public regarding potential adverse impacts. Comments of nearby residents or property owners directly affected by a proposal should be considered and evaluated, especially in regard to use compatibility and aesthetics.

H. The rights of treaty tribes to aquatic resources within their usual and accustomed areas should be addressed through the permit review process. Direct coordination between the applicant/proponent and the tribe should be encouraged.

I. Consideration should be given to both the potential beneficial impacts and potential adverse impacts that aquaculture development might have on the physical environment; on other existing and approved land and water uses, including navigation; and on the aesthetic qualities of a project area.

J. Legally established aquaculture enterprises, including authorized experimental projects, should be protected from incompatible uses that may seek to locate nearby. Use or developments that have a high probability of damaging or destroying an existing aquaculture operation may be denied.

K. Experimental aquaculture projects in water bodies should be limited in scale and should be approved for a limited period of time. Experimental aquaculture means an aquaculture activity that uses methods or technologies that are unprecedented or unproven in the state of Washington.

~~B. Regulations.~~

A. ~~General Site Design and Operation.~~

~~1. Aquaculture activities proposed within Shorelines of Statewide Significance shall be subject to, first, the policies contained in Chapter 23.40 WCC, Shorelines of Statewide Significance, and, second, the policies and regulations contained in this section.~~

~~2.1.~~ Aquaculture that involves little or no substrate modification shall be given preference over those that involve substantial modification. The applicant/proponent shall demonstrate that the degree of proposed substrate modification is the minimum necessary for feasible aquaculture operations at the site.

~~3.2.~~ The installation of submerged structures, intertidal structures, and floating structures shall be allowed only when the applicant/proponent demonstrates that no alternative method of operation is feasible.

Comment [CES138]: Covered by general use & mod regs.

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4.3. Aquaculture proposals that involve substantial substrate modification or sedimentation through dredging, trenching, digging, mechanical clam harvesting, or other similar mechanisms, shall not be permitted in areas where the proposal would adversely impact ~~existing kelp beds or other macroalgae, eelgrass beds~~ critical saltwater habitat, or other fish and wildlife habitat conservation areas.

5.4. Aquaculture activities, ~~which that~~ would have a significant adverse impact on natural, dynamic shoreline processes or ~~which that~~ would result in a net loss of shoreline ecological functions, shall be prohibited.

6. ~~Aquaculture uses and facilities shall be located at least 600 feet from any national wildlife refuge lands, except that:~~

- i. ~~Projects involving substantial substrate modification and/or fish net pens, if authorized, shall be located 1,500 feet or more from such areas.~~
- ii. ~~Lesser distances may be authorized by permit if it is demonstrated by the applicant/proponent that the wildlife resource will be protected and if the change is supported by the WDFW, the Lummi Nation and/or Nooksack Tribe.~~
- iii. ~~Greater distances may be required if supported by the reviewing resource agencies and/or where there is sound evidence demonstrating that a greater distance is required.~~

7.5. Unless otherwise provided in the shoreline permit issued by the County, repeated introduction of an approved organism in the same location shall require approval by the County only at the time the initial aquaculture use permit is issued. Introduction, for purposes of this section, shall mean the placing of any aquatic organism in any area within the waters of Whatcom County regardless of whether it is a native or resident organism within the county and regardless of whether it is being transferred from within or without the waters of Whatcom County.

8.6. The rights of treaty tribes to aquatic resources within their usual and accustomed areas shall be addressed through direct coordination between the applicant/proponent and the affected tribe(s) through the permit review process.

B. Site Design and Operation.

1. Aquaculture ~~practices~~ shall be designed to minimize use of artificial substances and shall use chemical compounds that are least persistent and have the least impact on plants and animals.
2. Aquaculture structures and equipment shall be of sound construction and shall be so maintained. Abandoned or unsafe structures and/or equipment shall be removed or repaired promptly by the owner, including when a business ceases operations. Where any structure might constitute a potential hazard to the public in the future, the County shall require the posting of a bond commensurate with the cost of removal or repair. The County may abate an abandoned or unsafe structure, following notice to the owner, if the owner fails to respond in 30 days and may impose a lien on the related shoreline property or other assets in an amount equal to the cost of the abatement. Bonding requirements shall not duplicate requirements of other agencies.
3. All floating and submerged aquaculture structures and facilities in navigable waters shall be marked in accordance with U.S. Coast Guard requirements.

Comment [AP139]: Removed, since these rules are identified in Ecology's guidance as an "obsolete net pen recommendation."

Local governments should use caution relying on other recommendations of the 1986 interim net pen guidelines and related environmental impact statement (Washington Department of Fisheries, 1990). The interim guidelines document is largely out of date. Ecology has reviewed the original rationale for the 1986 guidelines and found many recommendations are obsolete, unnecessary or inadequate given today's operations (Appendix 4).

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4. Predator control shall not involve the killing or harassment of birds or mammals. Approved controls include, but are not limited to, double netting for seals, overhead netting for birds, and three-foot-high fencing or netting for otters. The use of other nonlethal, non-abusive predator control measures shall be contingent upon receipt of written approval from the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service, as required.
 5. Aquaculture wastes shall be disposed of in a manner that will ensure strict compliance with all applicable governmental waste disposal standards, including but not limited to the Federal Clean Water Act, Section 401, and the Washington State Water Pollution Control Act (Chapter 90.48 RCW). No garbage, wastes, or debris shall be allowed to accumulate at the site of any aquaculture operation.
 6. No processing of any aquaculture product, except for the sorting or culling of the cultured organisms and the washing or removal of surface materials or organisms after harvest, shall occur in or over the water unless specifically approved by permit. All other processing and processing facilities shall be located on land and shall be subject to the policies of the Whatcom County Comprehensive Plan Chapter 11 (Shorelines) and regulations of WCC ~~23.40.100~~ 23.40.120 (Industrial and Port Development), in addition to the regulations in this section.
 7. For aquaculture projects using over-water structures, storage of necessary tools and apparatus waterward of the ordinary high water mark shall be limited to containers of not more than three feet in height, as measured from the surface of the raft or dock; provided, that in locations where the visual impact of the proposed aquaculture structures will be minimal, the County may authorize storage containers of greater height. In such cases, the burden of proof shall be on the applicant/proponent. Materials ~~which that~~ are not necessary for the immediate and regular operation of the facility shall not be stored waterward of the ordinary high water mark.
 8. The County shall reserve the right to require aquaculture operations to carry liability insurance in an amount commensurate with the risk of injury or damage to any person or property as a result of the project. Insurance requirements shall not ~~be required to duplicate requirements of~~ other agencies.
 9. Where aquaculture activities are authorized to use ~~public County~~ facilities, such as boat launches or docks, the County shall reserve the right to require the applicant/proponent to pay a portion of the cost of maintenance and any required improvements commensurate with the use of such facilities.
- C. Additional Standards for Net Pens.
1. Fish net pens and rafts shall meet the following criteria in addition to the other applicable regulations of this section:
 - a. Fish net pens shall meet, at a minimum, state-approved administrative guidelines for the management of net pen cultures. In the event there is a conflict in requirements, the more restrictive requirement shall prevail.

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- b. Fish net pens shall not occupy more than two surface acres of water area, excluding booming and anchoring requirements. Anchors that minimize disturbance to substrate, such as helical anchors, shall be employed. Such operations shall not use chemicals or antibiotics.
- c. Aquaculture proposals that include net pens or rafts shall not be located closer than one nautical mile to any other aquaculture facility that includes net pens or rafts; provided, that a lesser distance may be authorized if the applicant/proponent can demonstrate that the proposal will be consistent with the environmental and aesthetic policies and objectives of the Whatcom County Comprehensive Plan Chapter 11 (Shorelines). If a lesser distance is requested, the burden of proof shall be on the applicant/proponent to demonstrate that the cumulative impacts of existing and proposed operations would not be contrary to the policies of the Comprehensive Plan and regulations of this program.
- d. Net cleaning activities shall be conducted on a frequent enough basis so as not to violate state water quality standards. When feasible, the cleaning of nets and other apparatus shall be accomplished by air drying, spray washing, or hand washing.
- e. In the event of a significant fish kill at the site of a net pen facility, the fin fish aquaculture operator shall submit a timely report to the Whatcom County Health Department, Environmental Health division, and the Whatcom County Planning and Development Services Department stating the cause of death and shall detail remedial action(s) to be implemented to prevent reoccurrence.

2. ~~Commercial salmon net pen facilities shall not be located in Whatcom County waters, except for limited nonprofit penned cultivation of wild salmon stocks during a limited portion of their lifecycle to enhance restoration of native stocks when such activities involve minimal supplemental feeding and no use of chemicals or antibiotics. shall not be considered commercial salmon net pen facilities and may be permitted.~~

Comment [AP140]: This prohibition is already covered by the Use Table, so it has been removed from the text here. The language for the exception to the prohibition remains.

D. Additional Standards for Commercial Geoduck Aquaculture.

1. Commercial geoduck aquaculture shall only be allowed where sediments, topography, land, and water access support geoduck aquaculture operations without significant clearing or grading.
2. Shoreline conditional use permits are required for new commercial geoduck aquaculture and existing aquaculture being converted to commercial geoduck aquaculture. However, shoreline conditional use permits must take into account that commercial geoduck operators have a right to harvest geoduck once planted and all subsequent cycles of planting and harvest shall not require a new shoreline conditional use permit.
3. A substantial development permit is not required for the planting, growing, and harvesting of farm-raised geoduck clams unless a specific project or practice causes substantial interference with normal public use of the surface waters.
- ~~Shoreline conditional use permits must take into account that commercial geoduck operators have a right to harvest geoduck once planted.~~
4. A single shoreline conditional use permit application may be submitted for multiple sites within an inlet, bay, or other defined feature, provided the sites are all under control of the same applicant and under the County's shoreline permitting jurisdiction.

Comment [AP141]: Updated per Periodic Review Checklist, Item 2011.b, and Scoping Document, Item #1f.

Comment [AP142]: Revised language for clarity.

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E. Additional Standards for Experimental Aquaculture.

1. If uncertainty exists regarding potential impacts of a proposed aquaculture activity, and for all experimental aquaculture activities, baseline and periodic operational monitoring by a County-approved consultant (unless otherwise provided for) may be required, at the applicant's/proponent's expense, and shall continue until adequate information is available to determine the success of the project and/or the magnitude of any probable significant adverse environmental impacts. Permits for such activities shall include specific performance measures and provisions for adjustment or termination of the project at any time if monitoring indicates significant adverse environmental impacts that cannot be adequately mitigated.
2. Aquaculture developments, not including net pens, approved on an experimental basis shall not exceed five acres in area (except land-based projects and anchorage for floating systems) and three years in duration; provided, that the County may issue a new permit to continue an experimental project as many times as is deemed ~~necessary and~~ appropriate.
3. ~~New~~ Aquatic species that are not previously cultivated in Washington State shall not be introduced into Whatcom County salt ~~waters~~ or freshwaters without prior written approval of the Director of the Washington State Department of Fish and Wildlife and the Director of the Washington Department of Health. In saltwaters, the County shall not issue permits for projects that include the introduction of such organisms until it has also received written comment from the Marine Resources Committee, the Lummi Nation, and the Nooksack Tribe; provided, that such comment is received in a timely manner. This regulation does not apply to Pacific, Olympia, Kumamoto, Belon, or Virginica oysters; Manila, Butter, or Littleneck clams; or geoduck clams.

B.F. Supplemental Application Requirements – General Aquaculture.

1. In addition to the minimum application requirements specified in WCC Title 22 (Land Use and Development), Applications for aquaculture use or development shall include in their applications all information necessary to conduct a thorough evaluation of the proposed aquaculture activity, including but not limited to the following:
 - a. A site plan map including:
 - i. The perimeter of the proposed aquaculture operations area.
 - ii. Existing bathymetry depths based on mean lower low water (MLLW datum).
 - iii. Adjacent upland use, vegetation, presence of structures, docks, bulkheads and other modifications. If there are shore stabilization structures, provide the beach elevation at the toe of the structure and the top of the structure (MLLW datum).
 - iv. Areas where specific substrate modification will take place or structures will be constructed or installed.
 - v. Access provisions for barges or track equipment.
 - vi. Location of storage or processing structures or facilities.
 - b. A baseline description of existing conditions, including best available information on:
 - i. Water quality.
 - ii. Tidal variations.
 - iii. Prevailing storm wind conditions.

Comment [CES143]: All general application requirements have been moved into one general section. Subsections have items specific to that to Pic.

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- iv. Current flows.
 - v. Flushing rates.
 - vi. Littoral drift.
 - vii. Areas of differing substrate composition.
 - viii. Areas of aquatic, intertidal, and upland vegetation complexes. A vegetation habitat survey must be conducted. WDFW must be contacted prior to the survey to ensure it is conducted according to their most current eelgrass/macroalgae survey guidelines.
 - ix. Existing shoreline or water uses and structures.
 - x. Aquatic and benthic organisms. Information must include an assessment of aquatic species, including forage fish, and spawning and other lifecycle use of, or adjacent to, the site.
 - ~~xi. A vegetation habitat survey must be conducted. The WDFW must be contacted prior to the survey to ensure it is conducted according to the most current WDFW eelgrass/macroalgae survey guidelines.~~
 - ~~xii. Assessment of aquatic species, including forage fish, and spawning and other lifecycle use of, or adjacent to, the site.~~
- Further baseline studies including surveys and sampling may be required depending upon the adequacy of available information, existing conditions, and the nature of the proposal.
- c. A detailed description of the project proposal including:
 - i. Species to be reared.
 - ii. Substrate modification or vegetation removal.
 - iii. Planting, harvest and processing location, method and timing, including work proposal and construction techniques proposed (list all hand tools, machinery used (such as track hoes, trucks or barges), type of work, frequency, and duration.
 - d. Anticipated use of any feed, pesticides, herbicides, antibiotics, vaccines, growth stimulants, antifouling agents, or other chemicals, and an assessment of predicted impacts. Approvals for the use of ~~No such materials shall be used until approval is obtained from all appropriate state and federal agencies, including but not limited to the U.S. Food and Drug Administration, and the Washington State Departments of Ecology, Fish and Wildlife, and Agriculture, as required, and proof thereof is submitted to the County. Compounds with the least persistence shall be used.~~ An annual report of antibiotic use shall be submitted to the Whatcom County Department of Health, Environmental Health division. The report shall indicate the type and amount of antibiotics used during the previous calendar year. Actual usage data for all chemicals and antibiotics shall be maintained for review by County inspectors at all times.
 - e. Number of employees/workers necessary for the project, including average and peak employment.
 - f. Methods of waste disposal and predator control.
 - g. Methods to address pollutant loading, including biological oxygen demand (BOD).

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- h. Assessment of potential impacts on shoreline ecological functions and processes addressing the baseline conditions identified, including but not limited to indirect and cumulative effects.
 - i. A visual impact analysis ~~For floating culture facilities or other structures, if required by the County may require a visual impact analysis.~~ (See the Department of Ecology's "Aquaculture Siting Study" 1986 for general approach.) Depending on the size and complexity of the proposal, such analysis may be prepared by the applicant/proponent, without professional assistance; provided, that it includes an adequate assessment of impacts.
 - j. Information demonstrating that the site has natural potential for the type(s) of aquaculture proposed, due to necessary substrate or other conditions, as well as water quality suitable for the type(s) of aquaculture proposed.
 - k. Information demonstrating that the proposed aquaculture activities will not result in a net loss of shoreline ecological functions or processes or adversely affect habitat conservation areas ~~as defined by~~ (see WCC Chapter 16.16 (Critical Areas)).
 - l. Information demonstrating that the proposed aquaculture activities will not substantially and materially conflict with areas devoted to established uses of the aquatic environment. Such uses include but are not limited to navigation, moorage, sport or commercial fishing, log rafting, underwater utilities, and scientific research. Existing public opportunities for gathering wild stock aquatic resources on public lands shall be addressed in any application for aquaculture on public tidelands or bedlands. Compensation for loss of public access to public aquatic resources may be required.
 - m. Other pertinent information deemed necessary by the ~~administrator~~ Director.
2. Applications for aquaculture activities must demonstrate that the proposed activity will be compatible with surrounding existing and planned uses.
- a. Aquaculture activities shall comply with all applicable noise, air, and water quality standards. All projects shall be designed, operated and maintained to minimize odor and noise.
 - b. ~~Aquaculture activities shall be restricted to reasonable hours and/or days of operation when necessary to minimize substantial, adverse impacts from noise, light, and/or glare on nearby residents, other sensitive uses, or critical habitat.~~
 - c. ~~Aquaculture facilities shall not significantly impact introduce incompatible visual elements or substantially degrade the aesthetic qualities of the shoreline. Aquaculture structures and equipment, except navigation aids, shall be designed, operated and maintained to blend into their surroundings through the use of appropriate colors and materials.~~

G. Supplemental Application Requirements – Commercial Geoduck Aquaculture.

1. In addition to the general application requirements of WCC Title 22 (Land Use and Development), subsection F, above, and chapter 173-27 WAC, applications for new geoduck aquaculture use or development shall include all information necessary to conduct a thorough evaluation of the proposed activity, including but not limited to the following:

Comment [CES144]: Amended based on public comment (TSF07)

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- a. A narrative description and timeline for all anticipated geoduck planting and harvesting activities if not already contained in the federal or state permit application or comparable information mentioned above;
- b. A baseline ecological survey of the proposed site to allow consideration of the ecological effects if not already contained in the federal or state permit application or comparable information mentioned above; and
- c. Management practices that address impacts from mooring, parking, noise, lights, litter, and other activities associated with geoduck planting and harvesting operations.

H. Regulations for Specific Shoreline Environment Designations.

1. In the Urban Resort, Shoreline Residential, and Rural shoreline environments, proposals containing net pen facilities shall be located no closer than 1,500 feet from the OHWM of this environment, unless a specific lesser distance is determined to be appropriate based upon a visual impact analysis. Other types of floating culture facilities may be located within 1,500 feet of the OHWM but in such cases a visual analysis shall be mandatory.
- 1-2. In the Natural shoreline environment, aquaculture activities that do not require structures, facilities, or mechanized harvest practices and that will not result in the alteration of natural systems or features are permitted.

C. Shoreline Area Regulations.

- A. Urban. Aquaculture activities are permitted subject to policies and regulations of this program.
- B. Urban Resort. Aquaculture activities are permitted subject to policies and regulations of this program. Proposals containing net pen facilities shall be located no closer than 1,500 feet from the OHWM of this environment, unless a specific lesser distance is determined to be appropriate based upon a visual impact analysis. Other types of floating culture facilities may be located within 1,500 feet of the OHWM but in such cases a visual analysis shall be mandatory.
- C. Urban Conservancy. Aquaculture activities are permitted subject to policies and regulations of this program.
- D. Shoreline Residential. Aquaculture activities are permitted subject to policies and regulations of this program. Proposals containing net pen facilities shall be located no closer than 1,500 feet from the OHWM of this environment, unless a specific lesser distance is determined to be appropriate based upon a visual impact analysis. Other types of floating culture facilities may be located within 1,500 feet of the OHWM but in such cases a visual analysis shall be mandatory.
- E. Rural. Aquaculture activities are permitted subject to policies and regulations of this program. Proposals containing net pen facilities shall be located no closer than 1,500 feet from the OHWM of this environment, unless a specific lesser distance is determined to be appropriate based upon a visual impact analysis.
- F. Resource. Aquaculture activities are permitted subject to policies and regulations of this program.
- G. Conservancy. Aquaculture activities are permitted subject to policies and regulations of this program.

Comment [AP145]: Updated per Periodic Review Checklist, Item 2011.b, and Scoping Document, Item #1f.

Comment [AP146]: Reorganized and revised for clarity.

Comment [CES147]: The below are addressed in the use table or above now.

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H. ~~Natural Aquaculture activities that do not require structures, facilities or mechanized harvest practices and that will not result in the alteration of natural systems or features are permitted subject to policies and regulations of this program.~~

23.4100.050060 Boating Facilities—Marinas and Launch Ramps.

A. Policies.

A. ~~Boating facilities, including marinas and launch ramps, are water dependent uses and should be given priority for shoreline location. Boating facilities should also contribute to public access and enjoyment of waters of the state. Shorelines particularly suitable for marinas and launch ramps are limited and should be identified and reserved to prevent irreversible commitment for other uses having less stringent site requirements.~~

B. ~~Regional needs for marina and boat launch facilities should be carefully considered in reviewing new proposals as well as in allocating shorelines for such development. Such facilities should be coordinated with park and recreation plans and, where feasible, collocated with port or other compatible water dependent uses. Review of such facilities should be coordinated with recreation providers, including cities, adjacent counties, port districts, the Whatcom County parks and recreation department, the Washington State Parks and Recreation Commission, and the Washington State Department of Natural Resources to avoid unnecessary duplication and to efficiently provide recreational resources while minimizing adverse impacts to shoreline ecological functions and processes.~~

C. ~~Upland boat storage is preferred over new in water moorage. Mooring buoys are preferred over docks and piers. Boating facilities that minimize the amount of shoreline modification are preferred.~~

D. ~~Boating facilities should provide physical and visual public shoreline access and provide for multiple use, including water related use, to the extent compatible with shoreline ecological functions and processes and adjacent shoreline use.~~

E. ~~Accessory uses at marinas or launch ramps should be limited to water oriented uses, or uses that provide physical or visual shoreline access for substantial numbers of the general public.~~

F. ~~New or expanding boating facilities including marinas, launch ramps, and accessory uses should only be sited where suitable environmental conditions are present and should avoid critical saltwater habitat including kelp beds, eelgrass beds, spawning and holding areas for forage fish (such as herring, surf smelt and sandlance); subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.~~

G. ~~Boating facilities should be located and designed to avoid adverse effects upon coastal, riverine, and nearshore processes such as erosion, littoral or riparian transport, and accretion, and should, where feasible, enhance degraded, scarce, and/or valuable shore features including accretion shoreforms.~~

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- H. Launch ramps are preferred over marinas on accretion shores because associated impacts are often reversible and such structures will not normally interfere with littoral drift and accretion unless offshore defense structures or dredging are also required.
- I. Nonregulatory methods to protect, enhance, and restore shoreline ecological functions and processes and other shoreline resources should be encouraged during the design, development and operation of boating facilities. Nonregulatory methods may include public facility and resource planning, education, voluntary protection and enhancement projects, or incentive programs.
- J. Boating facilities should be located, designed and operated so that other appropriate water dependent uses are not adversely affected.
- K. Location and design of boating facilities should not unduly obstruct navigable waters and should avoid adverse effects to recreational opportunities such as fishing, shellfish gathering, pleasure boating, commercial aquaculture, swimming, beach walking, picnicking and shoreline viewing.
- L. Boating facilities should be located, designed, constructed and maintained to avoid adverse proximity impacts such as noise, light and glare; aesthetic impacts to adjacent land uses; and impacts to public visual access to the shoreline.

Regulations:

A. Marinas and Launch Ramps – General.

1. Boating facilities, including marinas and launch ramp development, in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC. This section applies to marinas and public boat launches, though the moorage structures of such facilities shall also comply with WCC 23.40.150 (Moorage Structures). For Docks, moorage structures serving four or fewer single family residences users, only are subject to the policies and regulations of WCC 23.40.150-100.090, (Moorage Moorage Structures) applies — Docks, piers, and mooring buoys.
2. Accessory uses shall be limited to those that are water-dependent, related to boating, and necessary for facility operation, or which provide physical or visual shoreline access to substantial numbers of the general public. Accessory uses shall be consistent in scale and intensity with the marina and/or launch ramp and surrounding uses.
3. All developments shall provide boater education addressing boater impacts on water quality and other shoreline resources, boater safety, and requirements for boater use of sewage pump-outs.

B. Marinas – Location Standards.

1. When marina sites are considered, sufficient evidence must be presented to show there is a regional demand and existing marinas are inadequate and cannot be expanded to meet regional demand.
2. Marinas shall be sited to prevent any restrictions in the use of commercial and recreational shellfish beds or commercial aquaculture operations. The specific distance shall be determined in conjunction with the Washington State Department of Health, the Washington State

Comment [CES148]: Moved from below

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Department of Ecology, and other agencies with expertise. Criteria for determining the specific distance may include:

- a. The size and depth of the waterbody;
- b. Tidal flushing action in the project area;
- c. Size of the marina and projected intensity of use;
- d. Whether fuel will be handled or stored;
- e. Location of a sewer hook-up; and
- f. Expected or planned changes in adjacent land uses that could result in additional water quality impacts or sanitary treatment requirements.

3. Marinas shall be allowed only on stable shoreline areas where water depth is adequate to eliminate or minimize the need for channel dredging (for construction or maintenance), soil disposal, filling, beach enhancement, and other harbor and channel maintenance activities.

4. Marinas shall be located only in areas where there is adequate water mixing and flushing and shall be designed so as not to reduce or negatively influence flushing characteristics.

5. Fixed breakwaters are discouraged.

6. Marinas shall be clearly separated from beaches commonly used for swimming and shall provide signage and protection measures to ensure the safety of swimmers.

7. Marinas shall not be located at or along:

- a. Significant littoral drift cells, including resource material areas, such as feeder bluffs and accretion beaches, barrier beaches, points, sand spits and hooks; or
- b. Wetlands, marshes, bogs, swamps and lagoons; or
- c. Mud flats and salt marshes; or
- d. Fish and shellfish spawning and rearing areas.

8. Solid structures shall not be permitted to extend without openings from the shore to zero tide level (mean lower low water, or MLLW), but shall stop short to allow sufficient shallow fringe water for fish passage.

C. **Marinas – Site Design.**

1. Proposals for marinas shall include public launch facilities unless the applicant can demonstrate that providing such facilities is not feasible.

2. Marinas shall be designed, constructed, and maintained to:

- a. Provide thorough flushing of all enclosed water areas and shall not restrict the movement of aquatic life requiring shallow water;
- b. Minimize interference with geo-hydraulic processes and disruption of existing shore forms;
- c. Be aesthetically compatible with existing shoreline features and uses;
- d. Avoid adverse proximity impacts such as noise, light, and glare;
- e. Include vegetative screening for parking, and upland storage areas and facilities consistent with landscaping standards prescribed in WCC 20.80.300, et seq. (Landscaping); and,
- f. Include public restrooms, accessory parking, or other recreational uses according to the scale of the facility.

Comment [CES149]: Moved from below

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3. Short-term loading/unloading areas and hand-launch storage areas may be located at ramps or near berthing areas and should be constructed of pervious material.
4. Public access, both visual and physical; such as viewpoints or walkways, shall be an integral part of all marina design and development commensurate with the particular proposal and must meet the standards of WCC 23.30.0760 (Public Access).
5. Innovative construction techniques and construction methods of foreshore marinas may be allowed when demonstrated to the satisfaction of the Director that the design will prevent degradation of fish migration, critical saltwater habitat, and/or shellfish resources.

D. Operations and Management.

1. The discharge of sewage and/or toxic material from boats and/or shore installations is prohibited. The responsibility for the adequate and approved collection and disposal of marina-originated sewage, solid waste, and petroleum waste is that of the marina operator. An emergency spill kit and use instructions shall be provided for tenants in an easy-to-access area and be accessible twenty-four (24) hours a day.
2. Commercial fish or shellfish processing and the discharge or discarding of unused bait, scrapfish, or viscera shall be prohibited.
3. Swimming shall be prohibited within marina facilities unless the swimming area is adequately separated, protected, and posted.
4. If dredging at marina entrances changes the littoral drift processes and adversely affects adjacent shores, the marina operator shall be required to periodically replenish these shores with the appropriate quantity and quality of aggregate as determined by a geohydraulic study, paid for by the operator or owner and completed to the satisfaction of the Director.
5. Temporary vacant moorage spaces shall be made available for "transient moorage" (less than two-week stay) when at least one of the following applies:
 - a. The marina is owned, operated, or franchised by a governmental agency for use by the public;
 - b. The marina provides more than three thousand (3,000) lineal feet of moorage; or
 - c. The marina is part of a mixed-use development which includes restaurants or other water-enjoyment uses.
6. Marina operators shall execute a lease, contract, or deed that establishes permission to use a slip for a stated period of time and that establishes conditions for use of the slip, including the requirement that all boats meet applicable sanitation regulations.
7. Marinas shall meet the following before occupancy:
 - a. Marinas that dispense fuel shall have adequate facilities and post procedures for fuel handling and storage to prevent/minimize accidental spillage.
 - b. Marinas shall have facilities, equipment, such as emergency spill kits, and post procedures for containment, recovery, and mitigation of spilled petroleum, sewage, and toxic products.
 - c. Marina operators shall post signs where they are readily visible to all marina users describing regulations:
 - i. Pertaining to handling and disposal of waste, wastewater, toxic materials, and recycling;

Comment [CES150]: Moved from below

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- ii. Prohibiting the discharge of marine toilets (i.e., no untreated sewage discharge);
- iii. Prohibiting the disposal of fish and shellfish cleaning wastes; and
- iv. Describing best management practices (BMPs) for boat maintenance and repairs on site.
- d. Garbage or litter receptacles shall be provided and maintained by the marina operator at several locations convenient to users in sufficient numbers to properly store all solid waste generated on site.
- e. Marina docks shall be equipped with adequate lifesaving equipment, such as:
 - i. Life rings, hooks, ropes and ladders, or equivalent, on the end of fingers; and/or
 - ii. One ladder (per side) either every one hundred (100) linear feet of the dock, or every six (6) slips whichever is greater. This regulation does not apply to a float which is less than one hundred (100) feet from a shoreline; or
 - iii. At least one ladder to serve a float with six (6) or more slips and is one hundred (100) linear feet in length or less.

E. Additional Standards for Boat Launches.

1. Boat launches are prohibited in:
 - a. Significant littoral drift cells, including resource material areas such as feeder bluffs and accretion beaches, points, spits and hooks;
 - b. Wetlands, marshes, bogs, swamps, and lagoons;
 - c. Mud flats and salt marshes; and
 - d. Fish spawning and rearing areas and commercial or recreational shellfish areas.
2. Launch ramps shall be:
 - a. Located on stable shorelines where water depths are adequate to eliminate or minimize the need for:
 - i. Offshore or foreshore channel construction dredging; or
 - ii. Maintenance dredging; or
 - iii. Spoil disposal; or
 - iv. Filling; or
 - v. Beach enhancement; or
 - vi. Other harbor and channel maintenance activities.
 - b. Located in areas where there is adequate water mixing and flushing.
 - c. Designed so as not to negatively influence flushing characteristics.
3. Innovative or hinged boat launches may be permitted on marine accretion shoreforms, provided that continual grading is not required. When grading is permitted it must not adversely affect ecological functions and ecosystem-wide processes. Accessory facilities shall be located out of critical areas.
4. Boat launches may be allowed on stable banks where current deflectors or other stabilization structures will not be necessary.
5. Boat launches shall not be permitted where the upland within twenty-five (25) feet of the OHWM has a slope that exceeds twenty-five percent (25%) grade and/or where substantial cutting, grading, filing, or defense works is necessary.

Comment [CES151]: Moved from below

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6. Boat launches, minor accessory buildings, and haul-out facilities shall be designed to be in character and scale with the surrounding shoreline.
7. Boat launches shall be built from flexible, hinge-segmented pads that can adapt to changes in beach profiles, unless a solid structure is demonstrated to be more appropriate for the intended level of use.
8. Boat launches shall be placed and kept near flush with the foreshore slope to minimize the interruption of geo-hydraulic processes and impacts to critical saltwater habitats.
9. Marine rails for boat launching shall be located the minimum distance necessary above existing grade to minimize impact on littoral drift and navigation along the shoreline.
10. Boat launch facilities shall be clearly separated from beaches commonly used for swimming and shall provide signage and protection measures to ensure the safety of swimmers.

F. Additional Standards for Live-Aboard Vessels.

1. Live-aboard vessels are only allowed in marinas and only as follows:
 - a. Vessels must be for residential use only;
 - b. Slips occupied by live-aboard vessels shall not exceed 10 percent of the total slips in the marina;
 - c. Vessels shall be owner-occupied; and
 - d. Vessels must be operational for cruising.
2. Live-aboard vessels must comply with all marine regulations, policies, and procedures of the U.S. Coast Guard, and any other federal and state government agencies that pertain to health, safety and/or environmental protection. Proof of seaworthiness of the vessel and the adequacy of the mooring arrangement must be provided and laws governing all the citizens of Whatcom County must be obeyed.

A.G. Additional Standards for Boat Storage.

1. Marinas shall provide dry upland boat storage with a launch mechanism to protect shoreline ecological functions and processes, efficiently use shoreline space, and minimize consumption of public water surface area unless:
 - a. No suitable upland locations exist for such facilities; or
 - b. It can be demonstrated that wet moorage would result in fewer impacts to ecological functions and processes; or
 - c. It can be demonstrated that wet moorage would enhance public use of the shoreline.
2. Dry moorage and other storage areas shall be located away from the shoreline and be landscaped pursuant to WCC 20.80.300, et seq. (Landscaping) with native vegetation to provide a visual and noise buffer for adjoining dissimilar uses or scenic areas.

B.H. Additional Standards for Parking and Vehicle Access.

1. Parking facilities shall meet County zoning design and location standards; provided, that at a minimum, one vehicle space shall be maintained for every four moorage spaces and for every 400 square feet of interior floor space devoted to accessory retail sales or service use. Bicycle parking shall be provided commensurate with the anticipated demand.

Comment [AP152]: Added per Scoping Document, Item #17].

From WAC 332-30-171:

(b) Upon the effective date of this rule, the ten percent limit can be changed by local government, through amendments to the local shoreline master program and/or issuance of a shoreline substantial development conditional use permit, if all of the following conditions are met:

- (i) Methods to handle the upland disposal and best management practices for the increased waste associated with residential use are expressly addressed and required; and*
- (ii) Specific locations for residential use slips do not adversely impact habitat or interfere with water-dependent uses.*

The County can opt to set a different limit, though 10 percent is in line with DNR regulations.

Per the Port of Bellingham Harbor Rules, Regulations, and Rates Handbook – 2019, at Squalicum Harbor there are currently 100 designated Live-aboard licenses and 50 Live-aboard licenses at Blaine Harbor. However, it is unclear what percentage of slips these numbers represent. May want to confirm that a proposed regulation here will not conflict with the Port's current regulations.

Blaine Harbor – 629 slips total (~8% live-aboard)
Squalicum Harbor – 1,400+ slips total (~7% live-aboard)

As such, the proposed provision should not conflict with the Port's regulations.

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2. ~~Public or quasi-public~~ Launch ramps shall provide trailer spaces, at least 10 feet by 40 feet, commensurate with projected demand.
3. Parking ~~that does not require a shoreline location in order to carry out its functions~~ shall:
 - a. Be sited away from the land/water interface unless no feasible alternative location exists outside of the shoreline;
 - b. Be planted or landscaped pursuant to WCC 20.80.300, et seq. (Landscaping) preferably with native vegetation, to provide a visual and noise buffer for adjoining dissimilar uses or scenic areas; and
 - c. ~~Observe critical area buffers in Chapter 16.16 WCC; and~~
 - d. Be designed to incorporate low impact development practices, such as pervious surfaces, and bioswales, ~~to the extent feasible~~ pursuant to WCC 20.80.630, et seq. (Stormwater and drainage).

Comment [AP153]: Removed since there's already have a section that says the CAO applies in the shoreline jurisdiction.

C.I. Supplemental Application Requirements. In addition to the general application requirements of WCC Title 22 (Land Use and Development), applications for marinas or launch ramps shall include all information necessary to conduct a thorough evaluation of the proposed activity, including but not limited to the following:

1. ~~Applications for new boating facilities, including marinas and launch ramps, shall be approved only if enhanced public access to public waters outweighs the potential adverse impacts of the use. Applications shall be accompanied by supporting application materials a level of service needs analysis that documents the market demand for such facilities, including:~~
 - a. The total amount of moorage proposed;
 - b. The proposed supply, as compared to the existing supply within the service range of the proposed facility, including vacancies or waiting lists at existing facilities;
 - c. The expected service population and boat ownership characteristics of the population;
 - d. Existing approved facilities or pending applications within the service area of the proposed new facility.
2. ~~New marinas with in water moorage and expansion of in water moorage facilities in existing marinas shall be approved only when:~~
3. ~~Opportunities for upland storage sufficient to meet the demand for moorage are not available on site; and~~
4. ~~Expansion of upland storage at other existing marinas is not feasible.~~
5. ~~2. Applications shall document that a preferred method of providing moorage facilities is not feasible. Review of proposals involving public aquatic lands may be required to include an analysis of other alternative sites not controlled by the applicant/proponent.~~
6. ~~3. Applications for launch ramps shall Provide a critical area assessment report pursuant to WCC 16.16 (Critical Areas), including contain:~~
 7. ~~A habitat survey.~~
 8. ~~A slope bathymetry map.~~
 9. ~~Evaluation of effects on littoral drift.~~

Comment [CES154]: Moved, as this is an approval criterion, not an application requirement.

Comment [DN155]: Moved to application requirements

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10.6. ~~Applications for marinas, launch ramps, and accessory uses shall include~~ Provide an assessment of existing water-dependent uses in the vicinity including, but not limited to, navigation, fishing, shellfish harvest, pleasure boating, swimming, beach walking, picnicking, and shoreline viewing, and ~~shall~~ document potential impacts and mitigating measures. Impacts on these resources shall be considered in review of proposals and specific conditions to avoid or minimize impacts may be imposed.

11.7. ~~AMarina and launch ramp proposals may be required to prepare a~~ Provide a visual assessment of views from surrounding residential properties, public viewpoints, and the view of the shore from the water surface, if required.

D. ~~Tabular Regulations – Setbacks, Height and Open Space for Marinas and Launch Ramp Development. Minimum required setbacks from shorelines and side property lines, maximum height limits, and open space requirements are contained in WCC 23.90.130, Shoreline bulk provisions – Buffers, setbacks, height, open space, and impervious surface coverage.~~

J. ~~Regulations for Specific Shoreline Environment Designations.~~

1. ~~In the Natural shoreline area environment, m~~Marinas or launch ramps are prohibited; except that primitive ramps to facilitate hand launching of small craft are permitted if materials and design are compatible with the site.

2. ~~In the Aquatic shoreline area environment, covered over-water structures may be permitted only where vessel construction or repair work is to be the primary activity and covered work areas are demonstrated to be the minimum necessary over water.~~

2. ~~Site Design and Operation.~~

a. ~~Marinas or launch ramps shall not be permitted on the following marine shores unless it can be demonstrated that interference with littoral drift and/or degradation or loss of shoreline ecological functions and processes, especially those vital to maintenance of nearshore habitat, will not occur. Such areas include:~~

b. ~~Feeder bluffs exceptional.~~

c. ~~High energy input driftways.~~

d. ~~Marinas or launch ramps shall not be permitted within the following marine shoreline habitats because of their scarcity, biological productivity, and sensitivity unless no alternative location is feasible, the project would result in a net enhancement of shoreline ecological functions, and the proposal is otherwise consistent with this program:~~

e. ~~Marshes, estuaries and other wetlands;~~

f. ~~Tidal pools on rock shores;~~

g. ~~Kelp beds, eelgrass beds, spawning and holding areas for forage fish (such as herring, surf smelt and sand lance);~~

h. ~~Subsistence, commercial and recreational shellfish beds; and~~

i. ~~Other critical saltwater habitats.~~

j. ~~Marinas or launch ramps shall not be permitted on the following marine accretion shoreforms unless it can be demonstrated that no other alternative location is feasible, the project would result in a net enhancement of shoreline ecological functions, and the~~

Comment [AP156]: Carried over from removed 'Shoreline Area Regulations.'

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- 1 ~~proposal is otherwise consistent with this program. Hoists are preferred over dredged~~
2 ~~marinas or launch ramps at such locations:~~
- 3 k. ~~Open points;~~
4 l. ~~Spits and hooks;~~
5 m. ~~Tomboles;~~
6 n. ~~Open bay barrier beaches;~~
7 o. ~~Accretional pocket beaches.~~
- 8 b. ~~Foreshore marinas or launch ramps may be permitted on low erosion rate marine feeder bluffs~~
9 ~~or on low energy input erosional driftways if the proposal is otherwise consistent with this~~
10 ~~program. Foreshore marinas or launch ramps are prohibited on accretional lake shores because~~
11 ~~these natural features are uncommon on lakes and are highly valuable for recreation.~~
- 12 c. ~~Backshore marinas and launch ramps may be permitted on closed accretional points, closed~~
13 ~~accretional bluff and bay barrier beaches, or low energy input driftways, except where wetlands~~
14 ~~are present or it can be demonstrated that a foreshore location would result in fewer impacts to~~
15 ~~shoreline ecological functions and processes, natural features and uses.~~
- 16 d. ~~Marinas or launch ramps may be permitted on low bank lake shores where backshore wetlands~~
17 ~~are protected, or where wetlands are not present, if most of the beach and backshore are~~
18 ~~preserved in a natural condition for public or quasi-public recreation.~~
- 19 e. ~~Marinas shall not be permitted in low gradient, broad meander stream channel reaches, except~~
20 ~~where located on outer, concave bends or straight, moderately eroding or stable banks, so that~~
21 ~~dredging and/or shore protection will not be necessary.~~
- 22 f. ~~Marina basins or structures shall not be permitted on river point bars or other accretional~~
23 ~~beaches. A limited number of launch ramps may be permitted on accretion shoreforms;~~
24 ~~provided, that any necessary grading will not adversely affect shoreline ecological functions or~~
25 ~~fluvial processes, and any accessory facilities are located out of the floodway.~~
- 26 g. ~~Marinas shall not be permitted in areas of active channel migration, where channel dredging will~~
27 ~~be required, if a flood hazard will be created, or if valuable shoreline ecological functions and~~
28 ~~processes will be degraded.~~
- 29 h. ~~Launch ramps may be located immediately downstream of accretion shoreforms, or on other~~
30 ~~non-erosional banks, where no or a minimum number of current deflectors will be necessary.~~
- 31 i. ~~Floating piers shall be required in rivers and streams unless it can be demonstrated that fixed~~
32 ~~piers will result in substantially less impact on geohydraulic processes and flood hazards can be~~
33 ~~minimized or mitigated.~~
- 34 j. ~~Where foreshore marinas are permitted:~~
- 35 i. ~~Open pile or floating breakwater designs shall be used unless it can be demonstrated that~~
36 ~~riprap or other solid construction would not result in any greater net impacts to shoreline~~
37 ~~ecological functions or processes or shore features.~~
- 38 ii. ~~Solid structures shall not be permitted to extend without openings from the shore to zero~~
39 ~~tide level (mean lower low water, or MLLW), but shall stop short to allow sufficient shallow~~
40 ~~fringe water for fish passage.~~

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- k. ~~Foreshore and backshore marinas shall be designed to allow the maximum possible circulation and flushing of all enclosed water areas.~~
- ~~— New or expanding marinas with dredged entrances that adversely affect littoral drift to the detriment of other shores and their users shall be required to periodically replenish such shores with the requisite quantity and quality of aggregate as determined by professional coastal geologic engineering studies.~~
- l. ~~All facilities shall be located and designed to avoid impediments to navigation and to avoid depriving other properties of reasonable access to navigable waters. Review and approval by the U.S. Coast Guard may be required as a condition of issuance of building or development permits to assure compliance. All in-water structures shall be marked and lighted in compliance with U.S. Coast Guard regulations.~~
- m. ~~Design and other standards for physical improvement of docks and piers are found in WCC 23.100.090, Moorage — Docks, piers and mooring buoys.~~
- E. ~~Public Access.~~
 - ~~— New launch ramps shall be approved only if they provide public access to public waters, which are not adequately served by existing access facilities, or if use of existing facilities is documented to exceed the designed capacity. Prior to providing ramps at a new location, documentation shall be provided demonstrating that expansion of existing launch facilities would not be adequate to meet demand.~~
 - a. ~~Public access areas shall provide space and facilities for physical and/or visual access to water bodies, including feasible types of public shore recreation.~~
 - b. ~~Marinas and boat launches shall provide public access for as many water-dependent recreational uses as possible, commensurate with the scale of the proposal. Features for such access could include, but are not limited to, docks and piers, pedestrian bridges to offshore structures, fishing platforms, artificial pocket beaches, and underwater diving and viewing platforms.~~
- 3. ~~Site Considerations.~~
 - a. ~~Marinas, launch ramps, and accessory uses shall be designed so that lawfully existing or planned public shoreline access is not unnecessarily blocked, obstructed nor made dangerous.~~
 - b. ~~Public launch ramps and/or marina entrances shall not be located near beaches commonly used for swimming, valuable fishing and shellfish harvest areas, or sea lanes used for commercial navigation unless no alternative location exists, and mitigation is provided to minimize impacts to such areas and protect the public health, safety and welfare.~~
 - c. ~~Marinas and accessory uses shall be located only where adequate utility services are available, or where they can be provided concurrent with the development.~~
 - d. ~~Marinas, launch ramps, and accessory uses shall be located where water depths are adequate to avoid the need for dredging and minimize potential loss of shoreline ecological functions or processes.~~

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- e. ~~Marinas, launch ramps, and accessory uses shall be located and designed with the minimum necessary shoreline stabilization to adequately protect facilities, users, and watercraft from floods, abnormally high tides, and/or destructive storms.~~
4. ~~Boat Storage.~~
 3. ~~Marinas shall provide dry upland boat storage with a launch mechanism to protect shoreline ecological functions and processes, efficiently use shoreline space, and minimize consumption of public water surface area unless:~~
 - i. ~~No suitable upland locations exist for such facilities; or~~
 - ii. ~~It can be demonstrated that wet moorage would result in fewer impacts to ecological functions and processes; or~~
 - iii. ~~It can be demonstrated that wet moorage would enhance public use of the shoreline.~~
 4. ~~Dry moorage and other storage areas shall be located away from the shoreline and be landscaped with native vegetation to provide a visual and noise buffer for adjoining dissimilar uses or scenic areas.~~
 - ~~New covered moorage for boat storage is prohibited.~~
 5. ~~Covered over-water structures may be permitted only where vessel construction or repair work is to be the primary activity and covered work areas are demonstrated to be the minimum necessary over water.~~
5. ~~Waste Disposal.~~
 1. ~~Marinas shall provide pump out, holding, and/or treatment facilities for sewage contained on boats or vessels.~~
 2. ~~Discharge of solid waste or sewage into a water body is prohibited. Marinas and boat launch ramps shall provide adequate restroom and sewage disposal facilities in compliance with applicable health regulations.~~
 3. ~~Garbage or litter receptacles shall be provided and maintained by the operator at several locations convenient to users.~~
 4. ~~Disposal or discarding of fish or shellfish cleaning wastes, scrap fish, viscera, or unused bait into water or in other than designated garbage receptacles is prohibited.~~
 5. ~~Marina operators shall post all regulations pertaining to handling, disposal, and reporting of waste, sewage, fuel, oil, or toxic materials where all users may easily read them.~~
 1. ~~Oil Product Handling, Spills, and Wastes. Fail safe facilities and procedures for receiving, storing, dispensing, and disposing of oil or hazardous products, as well as a spill response plan for oil and other products, shall be required of new marinas and expansion or substantial alteration of existing marinas. Compliance with federal or state law may fulfill this requirement. Handling of fuels, chemicals or other toxic materials must be in compliance with all applicable federal and state water quality laws as well as health, safety and engineering requirements. Rules for spill prevention and response, including reporting requirements, shall be posted on site.~~
6. ~~Parking and Vehicle Access.~~
 1. ~~Parking facilities shall meet County zoning standards; provided, that at a minimum, one vehicle space shall be maintained for every four moorage spaces and for every 400 square feet of~~

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- interior floor space devoted to accessory retail sales or service use. Bicycle parking shall be provided commensurate with the anticipated demand.
2. Public or quasi public launch ramps shall provide trailer spaces, at least 10 feet by 40 feet, commensurate with projected demand.
3. Parking that does not require a shoreline location in order to carry out its functions shall:
 - e. Be sited away from the land/water interface unless no feasible alternative location exists outside of the shoreline;
 - f. Be planted or landscaped preferably with native vegetation, to provide a visual and noise buffer for adjoining dissimilar uses or scenic areas;
 - g. Observe critical area buffers in Chapter 16.16 WCC; and
 - h. Be designed to incorporate low impact development practices, such as pervious surfaces, and bioswales, to the extent feasible.
- a. Connecting roads between marinas and public streets shall have all weather surfacing, and be satisfactory to the County Engineer in terms of width, safety, alignment, sight distance, grade and intersection controls.
7. Launch Ramp Design.
 - a. Preferred ramp designs, in order of priority, are:
 - i. Open grid designs with minimum coverage of beach substrate.
 - ii. Seasonal ramps that can be removed and stored upland.
 - iii. Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in beach profile.
 - b. Ramps shall be placed and maintained near flush with the foreshore slope.
8. Accessory Uses.
 - a. Accessory uses at marinas or launch ramps shall be limited to those water oriented uses, or uses that provide physical or visual shoreline access for substantial numbers of the general public. Accessory development includes, but is not limited to, parking, open air storage, waste storage and treatment, stormwater management facilities, utility, and upland transportation development.
 - b. Water oriented accessory uses reasonably related to marina operation may be located over water or at the water's edge by conditional use if an over water or water's edge location is essential to the operation of the use or if opportunities are provided for public access for a substantial number of persons.
 - a. Application Requirements.
 12. Applications for new boating facilities, including marinas and launch ramps, shall be approved only if enhanced public access to public waters outweighs the potential adverse impacts of the use. Applications shall be accompanied by supporting application materials that documents the market demand for such facilities, including:
 - i. The total amount of moorage proposed;
 - ii. The proposed supply, as compared to the existing supply within the service range of the proposed facility, including vacancies or waiting lists at existing facilities;

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- iii. ~~The expected service population and boat ownership characteristics of the population;~~
- iv. ~~Existing approved facilities or pending applications within the service area of the proposed new facility.~~
13. ~~New marinas with in-water moorage and expansion of in-water moorage facilities in existing marinas shall be approved only when:~~
14. ~~Opportunities for upland storage sufficient to meet the demand for moorage are not available on site; and~~
15. ~~Expansion of upland storage at other existing marinas is not feasible.~~
16. ~~Applications shall document that a preferred method of providing moorage facilities is not feasible. Review of proposals involving public aquatic lands may be required to include an analysis of other alternative sites not controlled by the applicant/proponent.~~
17. ~~Applications for launch ramps shall contain:~~
 - (A) ~~A habitat survey.~~
 - (B) ~~A slope bathymetry map.~~
 - (C) ~~Evaluation of effects on littoral drift.~~
18. ~~Applications for marinas, launch ramps, and accessory uses shall include An assessment of existing water dependent uses in the vicinity including, but not limited to, navigation, fishing, shellfish harvest, pleasure boating, swimming, beach walking, picnicking and shoreline viewing and document potential impacts and mitigating measures. Impacts on these resources shall be considered in review of proposals and specific conditions to avoid or minimize impacts may be imposed.~~
19. ~~Marina and launch ramp proposals may be required to prepare a visual assessment of views from surrounding residential properties, public viewpoints and the view of the shore from the water surface.~~
9. ~~Tabular Regulations – Setbacks, Height and Open Space for Marinas and Launch Ramp Development. Minimum required setbacks from shorelines and side property lines, maximum height limits, and open space requirements are contained in WCC 23.90.130, Shoreline bulk provisions – Buffers, setbacks, height, open space, and impervious surface coverage.~~
- C. ~~Shoreline Area Regulations.~~
 1. ~~Urban. Marinas and launch ramps are permitted subject to policies and regulations of this program.~~
 2. ~~Urban Resort. Marinas and launch ramps are permitted subject to policies and regulations of this program.~~
 3. ~~Urban Conservancy. Launch ramps are permitted subject to policies and regulations of this program. Marinas may be permitted as a conditional use.~~
 4. ~~Shoreline Residential. Marinas and launch ramps are permitted subject to policies and regulations of this program.~~
 5. ~~Rural. Marinas and launch ramps are permitted subject to policies and regulations of this program.~~

Comment [CES157]: Moved above and reorganized.

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- ~~6. Resource. Marinas and launch ramps are permitted subject to policies and regulations of this program.~~
- ~~7. Conservancy. Launch ramps are permitted subject to policies and regulations of this program. Marinas may be permitted as a conditional use.~~
- ~~8. Natural. Marinas or launch ramps are prohibited; except that primitive ramps to facilitate hand launching of small craft are permitted if materials and design are compatible with the site.~~
- ~~9. Aquatic.~~
 - a. ~~Marinas and launch ramps are permitted subject to the use and development regulations of the abutting upland shoreline area designation.~~

~~23.100.060~~ **23.40.070 Commercial Uses.**

~~Commercial development in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.~~

~~A. Policies.~~

- ~~A. In securing shoreline locations for commercial use, preference should be given first to water-dependent commercial uses, then to water-related and water-enjoyment commercial uses.~~
- ~~B. Restoration of impaired shoreline ecological functions and processes should be encouraged as part of commercial development.~~
- ~~C. Commercial development should ensure visual compatibility with adjacent noncommercial properties.~~
- ~~D. Commercial uses located in the shoreline should provide public access in accordance with constitutional or other legal limitations unless such improvements are demonstrated to be infeasible or present hazards to life and property.~~

~~B. Regulations.~~

~~—General.~~

- A. Allowed Use. Commercial uses that result in no net loss of shoreline ecological functions and processes are allowed subject to the policies and regulations of WCC 23.90.030 and the specific criteria below: Prior to approval of an application, the Director shall review a proposal for design, layout, and operation of the use and determine whether the proposed use is water-dependent, water-related, water-enjoyment, or a non-water-oriented commercial use.
 1. Water-dependent commercial uses shall be given first preference over non-water dependent water-related and water-enjoyment commercial uses. Prior to approval of water-dependent uses, the administrator shall review a proposal for design, layout and operation of the use and shall make specific findings that the use qualifies as a water-dependent use.
 2. Water-related commercial uses may shall not be approved if they displace existing water-dependent uses. Prior to approval of a water-related commercial use, the administrator shall review a proposal for design, layout and operation of the use and shall make specific findings that the use qualifies as a water-related use.
 3. Water-enjoyment commercial uses may shall be not be approved if they displace existing water-dependent or water-related uses or if they occupy space designated for water-dependent or

Comment [CES158]: Amended to be consistent w/ WAC 173-26-241(3)(d)

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water-related use identified in a substantial development permit or other approval. ~~Prior to approval of water enjoyment uses, the administrator shall review a proposal for design, layout and operation of the use and shall make specific findings that the use qualifies as a water-enjoyment use.~~

4. ~~Non-water oriented commercial uses may be permitted as a conditional use where located on a site physically separated from the shoreline by another property in separate ownership or a public right of way such that access for water-oriented use is precluded; provided, that such conditions were lawfully established prior to the effective date of this program. All other non-water-oriented commercial uses are prohibited in the shoreline unless the use provides significant public benefit with respect to the objectives of the Act and is the proposed use:~~
- a. ~~Is part of a mixed use project that includes a water-oriented use; or~~
 - b. ~~Is on a site where navigability is severely limited; or,~~
 - c. ~~Does not occupy space designated for water-dependent or water-related use identified in a project permit approval; or,~~
 - b.d. ~~In areas designated for commercial use and the site is physically separated from the shoreline by another property or public right of way.~~

5. ~~When permitted, non-w~~Water-oriented commercial uses shall provide public access in accordance with the provisions of WCC 23.30.060 (Public Access).

- 5.6. ~~Non-water oriented commercial uses shall provide public access and/or restoration as follows:~~

- a. ~~Non-water oriented commercial uses shall provide p~~Public access shall be in the form of unrestricted open space. ~~The administrator shall determine the amount of access in accordance with the provisions of WCC 23.90.080 on a case-by-case basis.~~
- b. If no water-oriented commercial uses are located on or adjacent to the water as part of a mixed use development, 80% of the shoreline and associated buffers shall be preserved or restored to provide shoreline ecological functions that approximate the functions provided by the site in natural conditions.
- c. The requirements ~~in subsections (B)(1)(e)(i) and (ii) of this section may be modified when:~~
 - i. The site is designated as a public access area by a shoreline public access plan, in which case public access consistent with that plan element shall be provided; or
 - ii. Specific findings are made demonstrating that the size of the parcel and the presence of adjacent uses preclude restoration of shoreline ecological functions. Where on-site restoration is infeasible, equivalent off-site restoration shall be provided ~~consistent with the policies and regulations of this program.~~
- d. Where restoration is proposed, buffers shall be designed as appropriate to protect shoreline resources based on a ~~site-specific restoration plan assessment and may differ from the standard critical area buffer dimensions provided in Chapter 16.16WCC; provided, that the building envelope for the proposed non-water-oriented use shall be based on current site conditions.~~

Comment [AP159]: Language revised for greater clarity and consistency with the use table.

Comment [CES160]: Added to be consistent w/ WAC 173-26-241(3)(d)

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- 1 ~~i. The requirements of this subsection (B)(1)(e) shall not apply to those non-water-oriented~~
2 ~~commercial uses located on a site physically separated from the shoreline where access to the~~
3 ~~land/water interface is precluded.~~
- 4 ~~6.7.~~ If water-oriented commercial uses are located on or adjacent to the water, the remaining
5 undeveloped water frontage that is not devoted to water-dependent use shall be preserved in a
6 substantially undeveloped condition until such time that an appropriate water-dependent use
7 has been identified for the area. If the site has been previously altered by past development, the
8 balance of the site may be reserved for future water-related use.
- 9 B. Site Design and Operation.
- 10 1. Commercial recreation-oriented uses, including commercial resorts and ~~rental~~ campgrounds,
11 shall provide adequate access to water areas for their patrons or shall provide adequate on-site
12 outdoor recreation facilities so that such resorts or campgrounds will neither be dependent on
13 nor place undue burdens upon public access and recreational facilities.
- 14 2. ~~New and expanded~~ Commercial development shall install or establish access roads of sufficient
15 capacity and with appropriate improvements to provide vehicular and pedestrian access to the
16 site. Utilities shall be adequate to serve the demands of the proposed uses.
- 17 3. Over-Water Structures.
- 18 a. Only those portions of water-dependent commercial uses that require over-water facilities
19 such as boat fuel stations shall be permitted to locate waterward of the OHWM, provided
20 they are located on floats, piling, or other open-work structures.
- 21 b. Non-water-dependent commercial uses shall not be allowed over water except in limited
22 instances where they are appurtenant to existing structures and necessary in support of
23 water-dependent uses.
- 24 4. Marine rails shall be located the minimum distance necessary above existing grade to minimize
25 impact on littoral drift and navigation along the shoreline.
- 26 ~~4. Building Height.~~
- 27 a. ~~As mandated by the Act (RCW 90.58.320), no permit may be issued for any new or~~
28 ~~expanded building or structure of more than 35 feet above average grade level on~~
29 ~~shorelines that will obstruct the view of a substantial number of residences on areas~~
30 ~~adjoining such shorelines, except where this program does not prohibit such development~~
31 ~~and only when overriding considerations of the public interest will be served.~~
- 32 b. ~~Lodging developments over 35 feet in height may be allowed in resort communities within~~
33 ~~the Urban Resort shoreline area designation, subject to the requirements of~~
34 ~~WCC 23.90.130(5). However, due to the potential for adverse impact upon adjacent uses~~
35 ~~and the community from such development, special consideration must be given to the~~
36 ~~following factors during review of such proposals:~~
- 37 i. ~~Urban services, including sanitary sewers, public water supply, fire protection, storm~~
38 ~~drainage, and police protection, must be provided at adequate levels to protect the~~
39 ~~public health, safety, and welfare.~~

Comment [PDS161]: Already covered by
23.40.020(E)(1).

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ii. ~~Circulation, parking areas, and outdoor storage or loading areas should be adequate in size and designed so that the public safety and local aesthetic values are not diminished. Such areas should be screened from open space areas by landscaping, fences or similar structures, or grade separation.~~

iii. ~~Recreational needs of building clientele must be provided for through several on-site recreation facilities and access to shorelines. The variety and number of on-site recreation facilities should increase proportionately as density increases.~~

Comment [PDS162]: Moved to 23.40.020(E)(1).

C. ~~Tabular Regulations—Setbacks, Height and Open Space for Commercial Development. Minimum required setbacks from shorelines and side property lines, maximum height limits and open space requirements are contained in WCC 23.90.130, Shoreline bulk provisions—Buffers, setbacks, height, open space and impervious surface coverage.~~

C. Regulations for Specific Shoreline Environment Designations.

1. In the Conservancy and Urban Conservancy shoreline environments, only low intensity commercial use and development—either water-oriented or non-water-oriented, and limited to resort, campground, and similar facilities—may be permitted as a shoreline conditional use. Non-water-oriented uses are subject to the criteria for such uses of this section.

2. In the Urban Resort shoreline environment, water-oriented resort-oriented commercial use and developments are permitted. Non-water-oriented commercial uses and developments may be permitted as a shoreline conditional use subject to the criteria for such uses in this section. Commercial uses in this shoreline environment are permitted either by themselves or as part of a structure or development also containing residential uses.

3. In the Resource shoreline environment, water-oriented commercial use and development related to natural resource products predominantly produced on site is permitted. Non-water-oriented commercial related to natural resource products predominantly produced on site may be permitted as a shoreline conditional use subject to the criteria for such uses in this section.

1. ~~Shoreline Area Regulations.~~

Comment [CES163]: Addressed in use table now.

~~Urban. Water-oriented commercial use and development is permitted subject to policies and regulations of this program. Non water-oriented commercial may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.~~

~~Urban Resort. Water-oriented resort-oriented commercial use and development is permitted subject to policies and regulations of this program. Non water-oriented commercial may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section. Commercial uses allowed in this designation are permitted either by themselves or as part of a structure or development also containing residential uses, subject to policies and regulations of this program.~~

~~Urban Conservancy. Low intensity water-oriented commercial use and development limited to resort, bed and breakfast, campgrounds and similar facilities may be permitted as a conditional use. Low intensity non water-oriented commercial limited to resort, bed and breakfast, campgrounds and similar~~

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facilities may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.

~~Shoreline Residential. Water-oriented commercial use and development is permitted subject to policies and regulations of this program. Non-water-oriented commercial may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.~~

~~Rural. Water-oriented commercial use and development is permitted subject to policies and regulations of this program. Non-water-oriented commercial may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.~~

~~Resource. Water-oriented commercial use and development related to natural resource products predominantly produced on site is permitted subject to policies and regulations of this program. Non-water-oriented commercial related to natural resource products predominantly produced on site may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.~~

~~Conservancy. Low intensity water-oriented commercial use and development limited to resort, bed and breakfast, campgrounds and similar facilities may be permitted as a conditional use. Low intensity non-water-oriented commercial limited to resort, bed and breakfast, campgrounds and similar facilities may be permitted as a conditional use subject to the criteria for such uses in subsection (B)(1)(d) of this section.~~

~~Natural. Commercial use and development is prohibited.~~

~~—Aquatic. Commercial use and development is prohibited, except that water dependent uses and appurtenant structures may be permitted subject to the use and development regulations of the abutting upland shoreline area designation.~~

23.4100.070-080 Dredging and Dredge Material Disposal.

~~A. Policies.~~

- ~~1. Dredging should be permitted for water dependent uses of economic importance to the region and/or essential public facilities only when necessary and when alternatives are infeasible or less consistent with this program.~~
- ~~2. Dredging to provide water oriented recreation should not be permitted.~~
- ~~3. Minor dredging as part of ecological restoration or enhancement, beach nourishment, public access or public recreation should be permitted if consistent with this program.~~
- ~~4. New development should be sited and designed to avoid or, where avoidance is not possible, to minimize the need for new maintenance dredging.~~
- ~~5. Dredging of bottom materials for the primary purpose of obtaining material for landfill, construction, or beach nourishment should not be permitted.~~
- ~~6. Spoil disposal on land away from the shoreline is generally preferred over open water disposal.~~

Comment [AP164]: This section has been moved from the General Regulations section (previously WCC 23.90.120). Added to title for clarity of section contents and consistency with WAC 173-26-231.

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7. Long-term cooperative management programs that rely primarily on natural processes, and involve land owners and applicable local, state and federal agencies and tribes, should be pursued to prevent or minimize conditions which make dredging necessary.

~~B. Regulations.~~

A. General.

~~8.1.~~ Dredging shall only be permitted for the following activities:

- a. Development of approved ~~wet moorages, harbors, ports and~~ water-dependent uses of economic importance to the region and/or essential public facilities industries of economic importance to the region only when there are no feasible alternatives.
- ~~b. Development of essential public facilities when there are no feasible alternatives.~~
- ~~c. b.~~ Maintenance dredging for the purpose of restoring a lawfully established development or the previously permitted or authorized hydraulic capacity of streams.
- ~~d. c.~~ Maintenance of irrigation reservoirs, drains, canals, or ditches for agricultural purposes.
- ~~e. d.~~ Establishing, expanding, relocating, or reconfiguring navigation channels where necessary to assure safe and efficient accommodation of existing navigational uses. Maintenance dredging of established navigation channels and basins shall be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.
- ~~f. e.~~ Removal of gravel for flood management purposes consistent with an adopted flood hazard reduction plan and only after a biological and geomorphological study demonstrates that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of shoreline ecological functions and processes, and is part of a comprehensive flood management solution.
- ~~g. f.~~ Restoration or enhancement of shoreline ecological functions and processes benefiting water quality and/or fish and wildlife habitat.
- ~~h. g.~~ Minor in-water trenching to allow the installation of necessary underground pipes or cables if no alternative, including boring, is feasible, and:
 - i. Impacts to fish and wildlife habitat are avoided to the maximum extent possible.
 - ii. The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.
 - iii. Appropriate best management practices are employed to prevent water quality impacts or other environmental degradation.
- ~~h.~~ Dredging for the purpose of obtaining ~~landfill~~ material is prohibited, except that:
 - ~~i.~~ Limited bar scalping of gravel in streams is permitted subject to policies of the Whatcom County Comprehensive Plan and regulations for mining under WCC 23.100.08023.40.140 (Mining), and WCC Title 20 (Zoning).
 - ~~ii.~~ Dredging to obtain fill for restoration projects is permitted for approved MTCA/CERCLA projects and may be approved as a shoreline conditional use for other restoration projects.

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- 9-2. The physical alignment and ecological functions and processes of streams, lakes, or marine shorelines shall be maintained, except to improve hydraulic function, water quality, fish or wildlife habitat, or fish passage.
3. ~~Limitations on~~ To protect public safety and compatibility with surrounding uses, dredge or disposal operations may be ~~conditioned~~ imposed to reduce proximity impacts, protect the public safety and assure compatibility with the interests of other shoreline users. Conditions may include limits on periods and hours of operation, and type of machinery, and may require provision of landscaped buffers, strips and/or fencing to address noise and visual impacts at land disposal or transfer sites.
- 10-4. Regular maintenance of an approved barge landing site shall not be considered dredging.
- A-B. Additional Standards for Spoil Dredge Material Disposal.
1. Any dredge material disposal shall be used as part of a program to restore or enhance shoreline ecological functions and processes, unless found to be infeasible.
- 1-2. Dredge material Spoil disposal on uplands away from the within shoreline jurisdiction is permitted only under the following conditions:
- Shoreline ecological functions and processes will be preserved, including protection of surface and ground water.
 - Erosion, sedimentation, floodwaters, or runoff will not increase adverse impacts to shoreline ecological functions and processes or property.
 - Sites will be adequately screened from view of local residents or passersby on public rights-of-way.
3. Disposal of dredge material on shorelands or wetlands within a river's channel migration zone shall be discouraged. In the limited instances where it is allowed for restoration or enhancement of shoreline ecological functions and processes, such disposal shall require a shoreline conditional use permit.
4. Dredge material Spoil disposal is prohibited on marine shorelines between the line of extreme low tide and below the ordinary high water mark, on lake shorelines or beds, and in streams; except that:
- Dredge spoil material may be used in approved projects for the restoration or enhancement of shoreline ecological functions and processes, such as beach nourishment.
 - Spoil disposal in open waters may be approved only in accordance with the Puget Sound Dredged Disposal Analysis (PSDDA) evaluation procedures for managing in-water disposal of dredged material; when approved by applicable agencies, which may include the U.S. Army Corps of Engineers pursuant to Section 10 (Rivers and Harbors Act) and Section 404 (Clean Water Act) permits, and Washington State Department of Fish and Wildlife hydraulic project approval (HPA); and when found to meet the following conditions:
 - Land disposal is infeasible, less consistent with this program, or prohibited by law.
 - Nearshore disposal as part of a program to restore or enhance shoreline ecological functions and processes is not feasible.

Comment [CES165]: This provision applies to upland areas within shoreline jurisdiction, away from the OHWM. Revised language for greater clarity.

Comment [DN166]: This language is pulled directly from WAC 173-26-231. Revised language to clarify that restoration and enhancement is the only instance in which this would be permitted.

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- e. ~~Offshore habitat will be protected, restored, or enhanced.~~
- f. ~~Adverse effects on water quality or biologic resources from contaminated materials will be mitigated.~~
- g. ~~Shifting and dispersal of spoil will be minimal.~~
- ~~Water quality will not be adversely affected.~~
- h.b. Dredge material disposal at an open water disposal site approved through the auspices of the Dredged Material Management Program (RCW 79.105.500) is allowed and shall not require a shoreline permit.

Comment [CES167]: Don't need this, since it doesn't need a shoreline permit

C. Supplemental Application Requirements.

~~B.D.~~ In addition to the minimum application requirements specified in ~~WCC 23.60.050~~ WCC Title 22 (Land Use and Development), applications for dredging and material disposal use or development shall include all information necessary to conduct a thorough evaluation of the proposed activity, including but not limited to the following::

- a. A description of the purpose of the proposed dredging and an analysis of compliance with the policies and regulations of this program and WCC Title 20 (Zoning).
- b. A detailed description of the existing physical character, shoreline geomorphology, and biological resources provided by the area proposed to be dredged, including:
 - i. A site plan map outlining the perimeter of the proposed dredge area. The map must also include the existing bathymetry depths based on mean lower low water (MLLW) and have data points at a minimum of two-foot depth increments.
 - ii. A habitat survey must be conducted and WDFW must be contacted to ensure the survey is conducted according to the most recent WDFW eelgrass/macroalgae survey guidelines.
 - iii. Information on stability of bedlands adjacent to proposed dredging and spoils disposal areas.
- c. A detailed description of the physical, chemical and biological characteristics of the dredge spoils to be removed.
 - i. Physical analysis of material to be dredged: material composition and amount, grain size, organic materials present, source of material, etc.
 - ii. Chemical analysis of material to be dredged: volatile solids, chemical oxygen demand (COD), grease and oil content, mercury, lead and zinc content, etc.
 - iii. Biological analysis of material to be dredged.
- d. A description of the method of materials removal, including facilities for settlement and movement.
 - i. Dredging procedure: length of time it will take to complete dredging, method of dredging and amount of materials removed.
 - ii. Frequency and quantity of project maintenance dredging.
- e. Detailed plans for dredge spoil disposal, including specific land disposal sites and relevant information on the disposal site, including but not limited to:
 - i. Spoils disposal area:

Comment [AP168]: Added per Periodic Review Checklist, Item 2019.b, and Scoping Document Item #2i.

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- (A) Physical characteristics including location, topography, existing drainage patterns, surface and ground water;
 - (B) Size and capacity of disposal site;
 - (C) Means of transportation to the disposal site;
 - (D) Proposed dewatering and stabilization of spoils;
 - (E) Methods of controlling erosion and sedimentation; and
 - (F) Future use of the site and conformance with land use policies and regulations.
- ii. Total initial spoils volume.
 - iii. Plan for disposal of maintenance spoils for at least a 50-year period.
- f. Hydraulic modeling studies sufficient to identify existing geohydraulic patterns and probable effects of dredging.

E. Regulations for Specific Shoreline Environment Designations.

- 2.1. ~~In the Natural shoreline area environment, dredging is prohibited except that dredging is permitted as an essential element of an approved shore restoration or enhancement plan, subject to policies and regulations of this program.~~
2. ~~In the Aquatic shoreline area environment;~~
 - a. ~~Dredging may be permitted as a shoreline conditional use subject to the use and development regulations of the abutting upland shoreline area environment designation;~~
 - b. ~~Dredging for a mutually designated reach of river with a provided, that the conditional use permit requirement may be waived upon county County and Ecology approval of a sediment management plan component for a mutually designated reach of river is permitted subject to the use and development regulations of the abutting upland shoreline area environment designation;~~
 - c. ~~Maintenance dredging pursuant to WAC 173-27-140 is permitted subject to the policies of and regulations of this program without a conditional use permit, provided the original constructed bottom contours have been established and documented in a prior shoreline permit or authorization.~~

Comment [AP169]: Carried over from removed 'Shoreline Area Regulations.'

C. Shoreline Area Regulations.

- A. ~~Urban. Dredging may be permitted as a conditional use subject to policies and regulations of this program.~~
- B. ~~Urban Resort. Dredging may be permitted as a conditional use subject to policies and regulations of this program.~~
- C. ~~Urban Conservancy. Dredging may be permitted as a conditional use subject to policies and regulations of this program.~~
- D. ~~Shoreline Residential. Dredging may be permitted as a conditional use subject to policies and regulations of this program.~~

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- 1 E. ~~Rural. Dredging may be permitted as a conditional use subject to policies and regulations of this~~
2 ~~program.~~
- 3 F. ~~Resource. Dredging may be permitted as a conditional use subject to policies and regulations of~~
4 ~~this program.~~
- 5 G. ~~Conservancy. Dredging may be permitted as a conditional use subject to policies and regulations~~
6 ~~of this program.~~
- 7 H. ~~Natural. Dredging is prohibited except that dredging is permitted as an essential element of an~~
8 ~~approved shore restoration or enhancement plan, subject to policies and regulations of this~~
9 ~~program.~~
- 10 I. ~~Aquatic. Dredging may be permitted as a conditional use subject to the use and development~~
11 ~~regulations of the abutting upland shoreline area designation; provided, that the conditional use~~
12 ~~permit requirement may be waived upon county and Ecology approval of a sediment~~
13 ~~management plan component for a mutually designated reach of river. Maintenance dredging~~
14 ~~pursuant to WCC 23.60.022(B) is permitted subject to the policies and regulations of this~~
15 ~~program without a conditional use permit, provided the original constructed bottom contours~~
16 ~~have been established and documented in a prior shoreline permit or authorization.~~

~~23.100.110~~ **23.40.090 Landfill and Excavation.**

~~A. Policies.~~

- 19 A. ~~Landfill and excavation should only be permitted to the minimum extent necessary to~~
20 ~~accommodate an approved shoreline use or development and with assurance of no net loss of~~
21 ~~shoreline ecological functions and processes. Enhancement and voluntary restoration of~~
22 ~~landforms and habitat are encouraged.~~
- 23 B. ~~Landfill in water bodies, floodways, and/or wetlands should not be permitted for creation of~~
24 ~~new uplands, unless it is part of an approved ecological restoration activity. Landfill should be~~
25 ~~permitted in limited instances to restore uplands where recent erosion has rapidly reduced~~
26 ~~upland area, to build beaches and protective berms for shore stabilization or recreation, to~~
27 ~~restore or enhance degraded shoreline ecological functions and processes, or to moderately~~
28 ~~elevate low uplands to make such uplands more suitable for purposes consistent with this~~
29 ~~program.~~
- 30 C. ~~Fill should not be allowed where shore stabilization works would be required to maintain the~~
31 ~~materials placed.~~
- 32 D. ~~Landfills and excavation should be located and developed so that water quality, hydrologic and~~
33 ~~runoff patterns are not altered.~~
- 34 E. ~~The predicted economic benefits of landfills and excavation should be weighed against long-~~
35 ~~term cumulative impacts on ecological processes and functions.~~

~~A. Regulations.~~

Comment [CES170]: Addressed by use table now.

Comment [AP171]: This section is re-located from the General Regulations section (previously WCC 23.90.100) and revised to distinguish between fill and dredge material disposal, dredging, excavation, or mining.

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A. General.

1. ~~Landfill~~ and excavation shall be avoided to the extent feasible, and shall be minimized to the maximum extent practicable and allowed only along with approved shoreline use and development activities that are consistent with this program. Where necessary, fill in shoreline jurisdiction shall be located, designed, and constructed to protect shoreline ecological functions and ecosystem-wide processes, including channel migration.
- ~~2. Excavation waterward of the OHWM or within wetlands shall be considered dredging or gravel bar scalping/mining for purposes of this program.~~
3. Fill materials shall only be clean sand, gravel, soil, rock, or similar material. Use of polluted dredge spoils or other solid or dangerous wastes is prohibited.
- ~~2.4. Landfill and excavation within wetlands or~~ waterward of the ordinary high water mark shall only be permitted through a shoreline conditional use permit in limited instances for the following purposes ~~only~~, with due consideration given to specific site conditions, and only along with approved shoreline use and development activities ~~that are consistent with this program~~:
 - a. ~~Port development for~~ Water-dependent uses where other upland alternatives or structural solutions, including pile or pier supports, are infeasible.
 - b. Expansion or alteration of transportation facilities of statewide significance currently located on the shoreline where alternatives to fill are infeasible.
 - c. Ecological restoration, mitigation, or enhancement such as beach nourishment, habitat creation, or bank restoration when consistent with an approved restoration plan.
 - d. Cleanup and disposal of contaminated sediments as part of an interagency environmental clean-up plan.
 - ~~e.e. Public access.~~
 - d. ~~Maintenance of lawfully established development.~~
 - e. ~~Development of shore stabilization projects, flood control, and instream structures.~~
 - f. ~~Except for landfill for county approved ecological restoration, fill and excavation waterward of the OHWM or in a wetland may only be authorized as a conditional use.~~
5. Fill shall not be used to create land to serve residential development.
- ~~3.6. Landfills or excavation shall not be located where shore stabilization will be necessary to protect materials placed or removed. Disturbed areas shall be immediately stabilized and revegetated, as applicable.~~
- ~~4. On marine shores, fill may be permitted in the foreshore where located at drift sector ends in low energy driftways, or on erosional pocket beaches for restoration and enhancement programs where the effect of the landfill's interruption of the littoral process can be mitigated.~~
- ~~5.7. Landfills, beach nourishment, and excavation shall be designed to blend physically and visually with existing topography whenever possible, so as not to interfere with long-term appropriate use including lawful access and enjoyment of scenery.~~
6. Perimeter banks shall generally be sloped no steeper than one foot vertical for every three feet horizontal unless a specific engineering analysis has been provided, and the administrator determines that the landfill blends physically and visually with existing topography.

Comment [CES172]: Added pursuant to WAC 173-26-231(3)(c)

Comment [CES173]: By definition, excavation in water is considered dredging and is covered in that section.

Comment [CES174]: Updated to comply with WAC 173-26-231(3)(c)

Comment [CES175]: Amended to be consistent w/ WAC 173-26-231(3)(c)

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7-8. Fill shall be designed to avoid water quality impacts in accordance with local, state and federal regulations. A temporary erosion and sediment control (TESC) plan shall be ~~provided~~ required for all proposed ~~landfill~~ and excavation activities.

23.4010.090100 Flood Hazard Reduction Control Works and Instream Structures.

~~c.~~ Flood control works and instream structures in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.

~~A.~~ Policies.

~~A.~~ Purpose and Need.

~~b.~~ New or expanding development or uses in the shoreline, including subdivision of land, that would likely require structural flood control works within a stream, channel migration zone, or floodway should not be allowed.

~~c.~~ Flood control works and instream structures should be planned and designed to be compatible with appropriate multiple uses of stream resources over the long term, especially in shorelines of statewide significance.

~~d.~~ Flood control works should only be allowed in the shoreline if they are necessary to protect existing development and where nonstructural flood hazard reduction measures are infeasible.

~~e.~~ Flood control works to protect existing development should be permitted only when the primary use being protected is consistent with this program, and the works can be developed in a manner that is compatible with multiple use of streams and associated resources for the long term, including shoreline ecological functions, fish and wildlife management, and recreation.

~~A.~~ Design Considerations.

~~f.~~ Flood control works should incorporate native vegetation to enhance ecological functions, create a more natural appearance, improve ecological processes, and provide more flexibility for long-term shoreline management. Such features include vegetated berms; vegetative stabilization including brush matting and buffer strips; and retention of existing trees, shrubs and grasses on stream banks.

~~g.~~ Flood control works and instream structures should be located, designed, constructed and maintained so their resultant effects on geohydraulic shoreline processes will not cause significant damage to other properties or valuable shoreline resources, and so that the physical integrity of the shoreline process corridor is maintained.

~~h.~~ To minimize flood damages and to maintain natural resources associated with streams, overflow corridors and other alternatives to traditional bank levees, revetments and/or dams should be considered. Setback levees and similar measures should be employed where they will result in lower flood peaks and velocities, and more effective conservation of resources than with high bank levees.

~~i.~~ Recognizing the large number of physical variables to be considered in properly locating and designing flood control works and instream structures, such as dams and weirs, and the high probability that poorly located and inadequately designed works will fail and/or adversely affect

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properties and shore features, such works should be sited and designed consistent with appropriate engineering principles and WCC Title 17.

j. Nonstructural and nonregulatory methods to protect, enhance, and restore shoreline ecological functions and processes and other shoreline resources should be encouraged as an alternative to structural flood control works and instream structures. Nonregulatory and nonstructural methods may include public facility and resource planning, land or easement acquisition, education, voluntary protection and enhancement projects, or incentive programs.

k. Design of flood control works should incorporate continued long-term multiple use of shoreline resources by all appropriate user groups.

~~l.a. Design of flood control works should provide access to public shorelines whenever possible, unless it is demonstrated that public access would cause unavoidable public health and safety hazards, security problems, unmitigatable ecological impacts, unavoidable conflicts with proposed uses, or unreasonable cost. At a minimum, flood control works should not decrease public access or use potential of shorelines.~~

A. Coordination.

m. In cooperation with other applicable agencies and persons, the county should continue to develop long-term, comprehensive flood hazard management plans, such as the Lower Nooksack River Comprehensive Flood Hazard Management Plan, to prevent needless flood damage, maintain the natural hydraulic capacity of floodways, and conserve valuable, limited resources such as fish, water, soil, and recreation and scenic areas.

n. Planning and design of flood control works and instream structures should be consistent with and incorporate elements from applicable watershed management plans, restoration plans and/or surface water management plans.

24A. Regulations.

A. ~~Purpose and Need-General.~~

1. **Applicability.** This section applies to actions taken to reduce flood damage or hazard and to uses, development, and shoreline modifications that may increase flood hazards. Flood hazard reduction measures may consist of nonstructural measures, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and stormwater management programs, and of structural measures, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program. Additional relevant critical area provisions are in WAC 173-26-221(2).
2. Development in floodplains should not significantly or cumulatively increase flood hazard or be inconsistent with a comprehensive flood hazard management plan adopted pursuant to chapter 86.12 RCW, provided the plan has been adopted after 1994 and approved by the Department of Ecology.
3. New development or new uses in shoreline jurisdiction should not be established when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway.

Comment [CES176]: Language from WAC 173-26-221(3)(a).

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- 1 4. The following uses and activities may be appropriate and/or necessary within the channel
2 migration zone or floodway:
- 3 a. Actions that protect or restore the ecosystem-wide processes or ecological functions.
4 b. Forest practices in compliance with the Washington State Forest Practices Act and its
5 implementing rules.
6 c. Existing and ongoing agricultural practices, provided that no new restrictions to channel
7 movement occur.
8 d. Mining when conducted in a manner consistent with the environment designation and with
9 the provisions of Chapter 23.40.140 (Mining).
10 e. Bridges, utility lines, flood Hazard Reduction works, and other public utility and
11 transportation structures where no other feasible alternative exists or the alternative would
12 result in unreasonable and disproportionate cost. Where such structures are allowed,
13 mitigation shall address impacted functions and processes in the affected section of
14 watershed or drift cell.
15 f. Repair and maintenance of an existing legal use, provided that such actions do not cause
16 significant ecological impacts or increase flood hazards to other uses.
17 g. Development with a primary purpose of protecting or restoring ecological functions and
18 ecosystem-wide processes.
19 h. Modifications or additions to an existing nonagricultural legal use, provided that channel
20 migration is not further limited and that the new development includes appropriate
21 protection of ecological functions.
22 i. Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion
23 rate exceeds that which would normally occur in a natural condition, that the measure does
24 not interfere with fluvial hydrological and geomorphological processes normally acting in
25 natural conditions, and that the measure includes appropriate mitigation of impacts to
26 ecological functions associated with the river or stream.
- 27 4.5. Structural flood hazard reduction control works shall be permitted only when it is demonstrated
28 by engineering and scientific evaluations that:
29 a. They are necessary to protect health/safety and/or existing development;
30 b. Nonstructural flood hazard reduction measures are infeasible; and
31 c. Measures are consistent with an adopted comprehensive flood hazard management plan
32 that evaluates cumulative impacts to the watershed system, or otherwise approved by
33 Whatcom County Public Works' River and Flood Division.
- 34 2.6. Place new structural flood hazard reduction measures landward of the associated wetlands, and
35 designated vegetation conservation areas, except for actions that increase ecological functions,
36 such as wetland restoration, or as noted below. Provided that such flood hazard reduction
37 projects be authorized if it is determined that no other alternative to reduce flood hazard to
38 existing development is feasible. The need for, and analysis of feasible alternatives to, structural
39 improvements shall be documented through an geotechnical analysis performed by a qualified
40 professional.

Comment [CES177]: Updated text from WAC 173-26-221((3))(c)

Comment [DOE-Req178]: Required Change – There is nothing within the SMP Flood Hazard Reduction Guidelines (WAC 173-26-221(3)) that allow a local government entity to override when new structural flood hazard reduction measures should be allowed within shoreline jurisdiction.

Comment [RCE179]: Updated text from WAC 173-26-221((3))(c)

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~~3.7. New flood hazard reduction control~~ works are prohibited on estuarine shores, on point and channel bars, and in salmon and trout spawning areas, except for the purpose of fish or wildlife habitat enhancement or restoration.

~~4.8. Revetments shall only be permitted for public projects, and shall not be placed waterward of the OHWM, except for weirs and current deflectors where necessary to protect bridges and roads.~~

~~5. Revetments and levees shall be designed consistent with appropriate engineering standards and WCC Title 17. Height shall be limited to the minimum required to protect the adjacent lands from the designed flood and demonstrated through hydraulic modeling that the height will not adversely impact shoreline ecological functions and processes.~~

9. Weirs and current deflectors are permitted only when necessary to protect public bridges, roads, and levees.

~~6.10.~~ Channelization projects that damage fish and wildlife resources, degrade recreation and aesthetic resources, or result in high flood stages and velocities shall not be permitted when feasible alternatives are available.

~~7.11.~~ Flood hazard reduction control works and instream structures shall be constructed and maintained in a manner that does not degrade the quality of affected waters. The County may require reasonable conditions such as setbacks, buffers, or storage basins to achieve this objective.

8.12. Flood hazard reduction works should provide access to public shorelines whenever possible, unless it is demonstrated that public access would cause unavoidable public health and safety hazards, security problems, unmitigatable ecological impacts, unavoidable conflicts with proposed uses, or unreasonable cost. At a minimum, flood hazard reduction works should not decrease public access or use potential of shorelines.

Comment [DOE-Req180]: Required Change – The consideration for public access associated with new flood hazard reduction measures is a requirement of the SMP Guidelines at WAC 173-26-221(3)(c)(iv).

Comment [CES181]: Moved from above.

B. Site Design and Operation.

1. The County shall require professionally engineered design of any proposed flood hazard reduction control works or instream structure.

2. The design of all dams and the suitability of the proposed site for dam construction shall be certified by a professional engineer licensed in the state of Washington. The professional design shall include a maintenance schedule.

3. For all dams that are not regulated by either the Federal Energy Regulatory Commission licensing procedures, or the State Department of Ecology reservoir permit requirements, a maintenance agreement and construction bond for 150% of the cost of the structure shall be filed with the director of the Public Works Department prior to construction. The maintenance agreement shall specify who is responsible for maintenance, shall incorporate the maintenance schedule specified by the design engineer, shall require annual inspections by a civil engineer licensed in the state of Washington and shall stipulate abandonment procedures which shall include, where appropriate, provisions for site restoration.

4. Natural instream features such as snags, uprooted trees, or stumps should be left in place unless it can be demonstrated that they are actually causing bank erosion or higher flood stages.

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5. Flood ~~hazard reduction control~~ works and instream structures shall allow for normal groundwater movement and surface runoff.
 6. Flood ~~hazard reduction control~~ works and instream structures shall preserve valuable recreation resources and aesthetic values such as point and channel bars, islands, and braided banks.
 - ~~6.7. New s~~ Structural flood ~~hazard reduction control~~ works shall be placed landward of associated wetlands, and designated habitat conservation areas, except for works that improve ecological functions, such as wetland restoration.
 - ~~7.8.~~ Where flood ~~hazard reduction control~~ works are necessary, they shall be set back at convex (inside) bends to allow streams to maintain point bars and associated aquatic habitat through normal accretion. Levees that have already cut off point bars should be relocated where feasible to lower flood stages and current velocities.
 - ~~8.9.~~ Where levees are necessary to protect floodway fringe areas, they shall be located and designed to protect shoreline ecological functions and processes. Such works should be located near the tangent to outside meander bends so that the stream can maintain normal meander progression and ~~utilize~~ use most of its natural flood water storage capacity.
 - ~~9.10.~~ No motor vehicles, appliances, other similar structures or parts thereof; nor structure demolition debris; nor any other solid waste shall be used for flood ~~hazard reduction control~~ works.
 11. Cut-and-fill slopes and back-filled areas shall be stabilized with brush matting and buffer strips and revegetated with native grasses, shrubs, or trees to prevent loss of shoreline ecological functions and processes.
- A. ~~Shoreline Area Regulations.~~
- ~~1. Urban. Flood control works and instream structures are permitted subject to policies and regulations of this program.~~
 - ~~2. Urban Resort. Flood control works and instream structures are permitted subject to policies and regulations of this program.~~
 - ~~3. Urban Conservancy. Flood control works and instream structures are permitted subject to policies and regulations of this program; provided, that channelization or dams for flood control are prohibited.~~
 - ~~4. Shoreline Residential. Flood control works and instream structures are permitted subject to policies and regulations of this program.~~
 - ~~5. Rural. Flood control works and instream structures are permitted subject to policies and regulations of this program; provided, that channelization or dams for flood control may be permitted as a conditional use.~~
 - ~~6. Resource. Flood control works and instream structures are permitted subject to policies and regulations of this program; provided, that channelization or dams for flood control may be permitted as a conditional use.~~
 - ~~7. Conservancy. Flood control works and instream structures are permitted subject to policies and regulations; provided, that channelization or dams for flood control are prohibited.~~

Comment [CES182]: Covered by use table now.

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8. ~~Natural. Flood control works and instream structures are prohibited except for normal maintenance and repair.~~

9. ~~Aquatic. Flood control works and instream structures are permitted subject to the use and development regulations of the abutting upland shoreline area designation.~~

23.4100.090-110 Forest Practices.

A. Policies.

A. ~~Forest lands should be reserved for long-term forest management and such other uses as are compatible with the dominant use. Other more intensive and incompatible uses tending to impair the dominant use should be discouraged from locating on forest lands.~~

B. ~~Forest practices should maintain high levels of water quality, as well as surface and ground water movement patterns.~~

C. ~~Forest practices should minimize damage to wetlands, fish and wildlife species and habitats, especially aquatic habitats.~~

D. ~~Extreme caution must be observed whenever chemicals are to be used along shorelines; such use should be avoided altogether if possible.~~

E. ~~Forest practices should maintain or improve the quality of soils and minimize erosion.~~

F. ~~Where slopes are extremely steep or soils are subject to sliding, rapid erosion or high water table, special practices should be employed to minimize damage to shoreland and water features, and adjacent properties.~~

B. Regulations.

A. General.

1. All forest practices undertaken on shorelines shall comply with the applicable policies and provisions of the Forest Practices Act, Chapter 76.09 RCW as amended, and any regulations adopted pursuant thereto (WAC Title 222), as administered by the Department of Natural Resources.

2. Unless otherwise stated, the vegetation conservation management regulations of this program do not apply to commercial forest practices as defined by this program when such activities are covered under the Washington State Forest Practices Act (Chapter 76.09 RCW), except where such activities are associated with a conversion to other uses or other forest practice activities over which local governments have authority. For the purposes of this program, preparatory work associated with the conversion of land to non-forestry uses and/or developments shall not be considered a forest practice and shall be reviewed in accordance with the provisions for the proposed non-forestry use, the general provisions of this program, and WCC Chapter 16.16 (Critical Areas), and shall be limited to the minimum necessary to accommodate an approved use.

3. A forest practice that only involves timber cutting is not a development under the Act and does not require a shoreline substantial development permit or a shoreline exemption. A forest practice that includes activities other than timber cutting may be a development under the act and may require a substantial development permit, as required by WAC 222-50-020.

Comment [AP183]: This section has been moved from the General Regulations section (previously WCC 23.90.110).

Comment [CES184]: Revised section per Scoping Document, Item #17g.

Comment [AP185]: Moved from Vegetation Management section (WCC 23.30.040).

Comment [CES186]: Added per Periodic Review Checklist, Item 2017.e, and Scoping Document Item #2b. This has also been addressed in the definitions section.

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4. ~~For the purposes of this program, preparatory work associated with the~~ Any conversion of land to ~~a non-forestry uses and/or development~~ use not compatible with forestry shall not be considered forest practices and shall be reviewed in accordance with the provisions for the proposed non-forestry use, the general provisions of this program, including vegetation conservation, and shall be ~~must~~:
- a. Comply with the applicable policies and regulations of this program;
 - b. Limited the conversion to the minimum necessary, while complying with the purpose of the shoreline environment designation, general policies and regulations, and specific shoreline use and modification policies and regulations on the subject property;
 - a-c. Ensure no net loss of shoreline ecological functions or significant adverse impacts to other shoreline uses, resources, and values provided for in RCW 90.58.020, such as navigation, recreation, and public access.
1. ~~Forest practices roads are prohibited on marine or lake shores where slopes exceed 35 percent except when necessary to obtain access to road networks on land outside the Act's jurisdiction.~~
 2. ~~Cutting of more than 30 percent of the merchantable trees over a 10-year period within 50 feet of the bank rim on feeder bluffs and landslide hazard areas is prohibited. Only selective thinning methods that minimize erosion potential shall be employed.~~
5. ~~Per RCW 90.58.150, W~~with respect to timber situated within shoreline jurisdiction along shorelines of statewide significance, only selective commercial timber cutting may be permitted so that no more than 30 percent of the merchantable timber may be harvested in any 10-year period; provided that:
- a. ~~Other timber harvesting methods may be permitted as a conditional use permit in those limited instances where topography, soil conditions, or silviculture practices necessary for regeneration render selective logging ecologically detrimental;~~ and
 - b. Timber removal that is to the minimum necessary for the conversion of land for other uses may be permitted.
- A. ~~Shoreline Area Regulations.~~
3. ~~Urban. Forest practices are prohibited.~~
 4. ~~Urban Resort. Forest practices are prohibited.~~
 5. ~~Urban Conservancy. Forest practices are prohibited.~~
 6. ~~Shoreline Residential. Forest practices are prohibited.~~
 7. ~~Rural. Forest practices are permitted subject to policies and regulations of this program and critical areas buffer regulations.~~
 8. ~~Resource. Forest practices are permitted subject to policies and regulations of this program and critical areas buffer regulations.~~
 9. ~~Conservancy. Forest practices are permitted subject to policies and regulations of this program and critical areas buffer regulations.~~

Comment [CES187]: Addressed by use table now.

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23.100.170-40.120 Industrial and Port Development.

~~a. Industrial and port development in shoreline areas outside of the Cherry Point management area shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.~~

Cherry Point Management Area. All industrial and port development in shorelines within the Cherry Point management area as defined in Chapter 23.110 WCC shall be subject to the policies and regulations found in WCC 23.100.170 instead of the policies and regulations of this section, unless otherwise specified therein.

~~A. Policies.~~

~~A. Shoreline sites particularly suitable for development such as deep water harbors with access to adequate rail, highway and utility systems should be reserved for water dependent or water-related industrial and port development.~~

~~B. In order to provide adequate shoreline for future water dependent and water related uses, industrial or port development at deep water sites should be limited to those uses that produce the greatest long-term economic base. Industrial and port development that is consistent with this program should be protected from encroachment or interference by incompatible uses with less stringent siting requirements, such as residential or commercial uses. Mixed use development, including non-water dependent uses, should only be allowed when they include and support water dependent uses.~~

~~C. Regional needs for port facilities should be carefully considered in reviewing new port proposals and in allocating shorelines for such development. Such reviews or allocations should be coordinated with port districts, adjacent counties and cities, and the state. Existing, officially designated State Harbor Areas should be used for new port development to the maximum extent whenever possible.~~

~~D. Multiple use of industrial and port facilities is encouraged to limit duplicative facilities and reduce adverse impacts. Multiple use should be implemented in the following manner:~~

~~b. Cooperative use of piers, cargo handling, storage, parking and other accessory facilities among private or public entities should be required in industrial or port facilities whenever feasible. New facilities for water dependent uses should be allowed only after assessment of the potential for shared use of existing facilities.~~

~~c. Industrial and port developments should provide opportunities for physical and/or visual public shoreline access in accordance with the public access policies, including recreational use of undeveloped shorelines not needed for port or industry operations; provided, that such uses are safely compatible with facility operations.~~

~~A. Industrial and port development in the shoreline should be located and designed to avoid significant adverse impacts to other shoreline uses, resources, and values, including shoreline geomorphic processes, water quality, fish and wildlife habitat, commercial aquaculture, and the aquatic food chain.~~

~~B. Restoration of impaired shoreline ecological functions and processes should be encouraged as part of industrial and port development.~~

Comment [P/C188]: P/C voted 9-0 to make 23.40.125 a subset of these rules, so that 23.40.120 applies to all industrial and port development and 23.40.125 are additional rules for the CPMA; and to remove redundancies.

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~~B. Regulations.~~

A. ~~Purpose and Need~~General.

~~1. Water dependent industrial and port uses designed, developed and operated consistent with the policies and regulations of this program shall be given preference over all other uses on the shoreline.~~

~~1. Prior to approval of an application~~water dependent industrial or port uses, the ~~administrator~~Director shall review a proposal for design, layout, and operation of the proposed use and shall ~~determine whether~~make specific findings that the use ~~qualifies as a~~is water-dependent, ~~water-related, water-enjoyment or non-water-oriented industrial and port use.~~

2. All harbor areas, established pursuant to Article XV of the Washington State Constitution, that have reasonable commercial navigational accessibility and necessary support facilities such as transportation shall be reserved for water-dependent and water-related uses that are associated with commercial navigation unless a specific finding is made in the permit review process that adequate shoreline is reserved for navigation use elsewhere in the affected harbor area.

3. Industrial and port uses that result in no net loss of shoreline ecological functions and processes are allowed subject to the policies and regulations of WCC 23.90.030 and the specific criteria below:

a. Water-dependent industrial and port uses shall be given first preference over ~~non-water dependent~~ ~~water related and water enjoyment~~ industrial and port uses. ~~Prior to approval of water dependent industrial or port uses, the administrator shall review a proposal for design, layout and operation of the proposed use and shall make specific findings that the use qualifies as a water dependent use.~~

~~a.b.~~ Water-related industrial and port uses shall be given second preference over non-water dependent industrial and port uses.

~~b.c.~~ Water-related industrial and port uses may not be approved if they displace existing water-dependent uses. ~~Prior to approval of water related industrial or port uses, the administrator shall review a proposal for design, layout and operation of the proposed use and shall make specific findings that the use qualifies as a water related use.~~

~~c.d.~~ Water-enjoyment industrial and port uses may not be approved if they displace existing water-dependent or water-related uses or if they occupy space designated for water-dependent or water-related use identified in a substantial development permit or other approval. ~~Prior to approval of water enjoyment industrial or port uses, the administrator shall review a proposal for design, layout and operation of the proposed use and shall make specific findings that the use qualifies as a water enjoyment use.~~

~~d.e.~~ Non water oriented industrial and port uses may be permitted where located on a site physically separated from the shoreline by another property in separate ownership or a public right of way such that access for water oriented use is precluded. All other non-water-oriented industrial and port uses are prohibited in the shoreline, except for those

Comment [CES189]: To be consistent w/ WAC 173-26-241(3)(f)

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identified above; provided that ~~unless~~ the use provides significant public benefit with respect to the objectives of the Act and the following is:

- i. The proposal is ~~part~~ of a mixed use project that includes a water-oriented use; or
- ii. The ~~proposal~~ is on a site where navigability is severely limited; ~~or~~
- iii. The proposal does not occupy space designated for water-dependent or water-related use identified in a project permit approval.

f. Water-oriented industrial and port uses shall provide public access in accordance with the provisions of WCC 23.30.060 (Public Access).

e.g. When permitted, ~~non~~ water-oriented industrial and port uses shall provide public access and/or restoration as follows:

- i. ~~Non water-oriented industrial and port uses shall provide p~~Public access shall be in the form of unrestricted open space. The administrator shall determine the amount of required access in accordance with the provisions of WCC 23.90.080 on a case-by-case basis.
- ii. If no water-oriented uses are located on or adjacent to the water as part of a mixed use development, 80% of the shoreline and associated buffers shall be restored to provide shoreline ecological functions that approximate the functions provided by the site in natural conditions.
- iii. The requirements in subsections (B)(1)(c)(v)(A) and (B) of this section may be modified when:
 - (A) The site is designated as a public access area by a shoreline public access plan, in which case public access consistent with that plan element shall be provided; or
 - (B) Specific findings are made demonstrating that the size of the parcel and the presence of adjacent uses preclude restoration of shoreline ecological functions. Where on-site restoration is infeasible, equivalent off-site restoration shall be provided consistent with the policies and regulations of this program.
- iv. Buffers shall be designed as appropriate to protect shoreline resources based on a site-specific restoration assessment plan, and may differ from the standard critical area buffer dimensions provided in Chapter 16.16 WCC; provided, that the building envelope for the proposed non water-oriented use shall be based on current site conditions.
- v. If water-oriented uses are located on or adjacent to the water, the remaining undeveloped water frontage that is not devoted to water-dependent use shall be preserved in a substantially unaltered condition. If the site has been previously altered by past development, the balance of the site may be reserved for future water-related use.
- vi. The requirements of this section shall not apply to those non water-oriented industrial or port uses located on a site physically separated from the shoreline where access to the land/water interface is precluded; provided, that such conditions were lawfully established prior to the effective date of this program.

Comment [AP190]: Updated per Commercial example.

Comment [CES191]: To be consistent w/ WAC 173-26-241(3)(f)

Comment [CES192]: Updated for clarity.

Comment [AP193]: Updated per Commercial example.

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1 ~~f.h.~~ Interim use of facilities approved and/or permitted for water-dependent use for non-water-
2 dependent uses may be approved by a shoreline conditional use permit under the following
3 conditions:

- 4 i. A specific occupancy plan has been approved that allows interim uses for a specific
5 period while the market for water-dependent uses is being developed, and the
6 proposed interim use is consistent with the occupancy plan.
- 7 ii. The period of interim lease or commitment of the space shall not exceed five years. At
8 the end of five years, a new application for interim use shall be submitted.
- 9 iii. A good faith effort to obtain water-dependent uses has been made and suitable tenants
10 were not found. The period of the search for water-dependent uses, the notice of
11 availability, listing or advertising employed, and any inquiries received shall be
12 documented.
- 13 iv. No permanent improvements will be made to the space that requires more than five
14 years of occupancy to repay the investment. No permanent improvements will be made
15 that will reduce the suitability of the space for water-dependent use.

- 16 4. Required setback areas shall not be used for storage of industrial equipment or materials, or
17 waste disposal, but may be used for outdoor recreation. Portions of such setbacks may be used
18 for motor vehicle parking if design of such facilities is consistent with this program and critical
19 area regulations in WCC Chapter 16.16.
- 20 5. Disposal or storage of solid or other industrial wastes is not permitted on shorelines; except that
21 liquid waste treatment facilities may be permitted as a shoreline conditional use if it is
22 demonstrated that a shoreline location is required or where it is demonstrated that an
23 alternative site outside of the shoreline is not feasible; and further excepted, that land
24 application of waters used in the processing of fruits and vegetables within the shoreline is
25 permitted as a shoreline conditional use.

- 26 6. Marine rafts shall be located the minimum distance necessary above existing grade to minimize
27 impact on littoral drift and navigation along the shoreline.

28 ~~b. Minimum required setbacks from shorelines and side property lines, maximum height limits~~
29 ~~and open space requirements are contained in WCC 23.90.130, Shoreline bulk provisions –~~
30 ~~Buffers, setbacks, height, open space and impervious surface coverage.~~

31 A.B. Additional Standards for Log Rafts and Storage.

- 32 1. Storage of logs is prohibited in water-bodies, except where an upland location is not feasible;
33 provided, that no ~~new~~ log storage may be allowed in marine or estuarine waters or tidelands.
- 34 2. Log rafting shall be allowed in cases where overland transportation of logs would produce
35 unacceptable transportation impacts, or for transportation of logs from islands or from other
36 locations in Puget Sound. Areas for assembly and disassembly of log rafts shall meet all
37 standards below for log storage.
- 38 3. Offshore log storage shall only be allowed on a temporary basis, and should be located where
39 natural tidal or current flushing and water circulation are adequate to disperse polluting wastes.
- 40 4. Log rafting or storage operations are required to implement the following, whenever applicable:

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- ~~b.a.~~ Logs shall not be dumped, stored, or rafted where grounding will occur.
 - ~~e.b.~~ Easy let-down devices shall be provided for placing logs in water.
 - ~~d.c.~~ Bark and wood debris controls and disposal shall be implemented at log dumps, raft building areas, and mill-side handling zones. Accumulations of bark and other debris on the land and docks around dump sites shall be fully contained and kept out of the water.
 - ~~e.d.~~ Where water depths will permit the floating of bundled logs, they shall be secured in bundles on land before being placed in the water. Bundles shall not be broken again except on land or at mill sites.
 5. Impervious pavement is required for log yards where the wet season water table is less than four feet below surface level in order to reduce waste buildup and impacts on ground ~~water~~ and surface water.
 6. Stormwater management facilities shall be provided to protect the quality of affected waters.
 7. Log storage facilities shall be located upland and properly sited to avoid fish and wildlife habitat conservation areas.
 8. Log storage facilities must be sited to avoid and minimize the need for dredging in order to accommodate ~~new~~ barging activities at the site.
 9. Log storage facilities shall be located in existing developed areas to the greatest extent feasible. If a ~~new~~ log storage facility is proposed along an undeveloped shoreline, an alternatives analysis shall be required.
 10. A berm must be located around the outer edge of the upland sort surface using rocks, or other suitable materials to prevent loss of wood debris into the water.
 11. Log booming shall only be allowed offshore in sub-tidal waters in order to maintain unimpeded nearshore migration corridors for juvenile salmonids and to minimize shading impacts from log rafts. Log booming activities include the placement in or removal of logs and log bundles from the water, and the assembly and disassembly of rafts for water-borne transportation.
 12. A debris management plan describing the removal and disposal of wood waste must be developed and submitted to the County. Debris monitoring reports shall be provided, ~~when~~ if stipulated.
 13. Existing in-water log storage and log booming facilities in critical habitats ~~utilized~~ used by threatened or endangered species classified under ESA shall be reevaluated if use is discontinued for two years or more, or if substantial repair or reconstruction is required. The evaluation shall include an alternatives analysis in order to determine if logs can be stored upland and out of the water, or if the site should be used for other purposes that would have lesser impacts on ESA-listed species. The alternatives analysis shall include evaluation of the potential for moving all, or portions of, log storage and booming to uplands.
- ~~B. Hydropower Development.~~
- ~~b. Hydropower facilities shall be located, designed, and operated to minimize impacts to fish and wildlife resources including spawning, nesting, and rearing habitat, and migratory routes, and critical areas. Mitigation measures to achieve no net loss of shoreline ecological functions and processes shall be implemented in accordance with WCC.~~

Comment [CES194]: Moved to Utilities section

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- e. ~~Hydropower facilities shall be located, designed, and operated to protect and minimize impacts to geohydraulic processes; waterfalls; erosion and accretion shoreforms; agricultural land; scenic vistas; recreation sites; and sites having significant historical, cultural, scientific, or educational value.~~
- d. ~~Hydropower facilities shall accommodate public access to, and multiple use of, the shoreline.~~
- e. ~~For all dams that are not regulated by either the Federal Energy Regulatory Commission licensing procedures, or the State Department of Ecology reservoir permit requirements, a maintenance agreement and construction bond for 150 percent of the cost of the structure shall be filed with the director of the Public Works Department prior to construction. The maintenance agreement shall specify who is responsible for maintenance, shall incorporate the maintenance schedule specified by the design engineer, shall require annual inspections by a civil engineer licensed in the state of Washington and shall stipulate abandonment procedures which shall include, where appropriate, provisions for site restoration.~~
- f. ~~The design of all dams and the suitability of the proposed site for dam construction shall be certified by a professional engineer licensed in the state of Washington. The professional design shall include a maintenance schedule.~~

C. Regulations for Specific Shoreline Environment Designations.

1. In the Rural shoreline environment, permitted water-oriented port development and industrial facilities are limited to those used for processing, manufacturing, and storage of finished or semi-finished goods.
2. In the Resource shoreline environment, water-oriented facilities for the processing, manufacturing, and storage of natural resource products are permitted. Other water-oriented industrial or port use and development may be permitted as a shoreline conditional use. Non-water-oriented oriented facilities for the processing, manufacturing, and storage of natural resource products may be permitted as a shoreline conditional use subject to the criteria for such uses in this section.
3. In the Aquatic shoreline environment, water-dependent industrial or port use and development are permitted, subject to the use and development regulations of the abutting upland shoreline environment designation.
4. In the Cherry Point Management Area, WCC 23.40.125 shall also apply. Where this section differs from WCC 23.40.125, the regulation(s) of that section shall govern.

A. ~~Shoreline Area Regulations.~~

1. ~~Urban. Water oriented industrial and port use and development are permitted subject to policies and regulations of this program. Non water oriented industrial or port use and development may be permitted as a conditional use, subject to criteria for such uses in subsection (B)(1)(c)(iv) of this section. Dams, diversion, and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
2. ~~Urban Resort. Port development limited to passenger terminals is permitted. All other industrial or port use and development is prohibited.~~

Comment [CES195]: Moved from 'Shoreline Area Regulations.'

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- ~~3. Urban Conservancy. Industrial or port use and development are prohibited, except that dams, diversion, and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
- ~~4. Shoreline Residential. Industrial or port use and development are prohibited, except that dams, diversion, and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
- ~~5. Rural.~~
 - ~~a. Water-oriented port development and industrial facilities for processing, manufacturing, and storage of finished or semi finished goods are permitted.~~
 - ~~b. Non water-oriented industrial or port use and development may be permitted as a conditional use, subject to criteria for such uses in subsection (B)(1)(c)(iv) of this section.~~
 - ~~c. Dams, diversion and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
- ~~6. Resource.~~
 - ~~a. Water-oriented facilities for processing, manufacturing, and storage of natural resource products are permitted subject to the policies and regulations of this program.~~
 - ~~b. Non water-oriented facilities for processing, manufacturing and storage of natural resource products, subject to criteria for such uses in subsection (B)(1)(c)(iv) of this section, and other water-oriented industrial or port use and development may be permitted as a conditional use.~~
 - ~~c. Dams, diversion and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
 - ~~d. Other non water-oriented industrial or port use and development are prohibited.~~
- ~~7. Conservancy. Industrial or port use and development are prohibited, except that dams, diversion, and tailrace structures and accessory development for hydroelectric power generation may be permitted as a conditional use.~~
- ~~8. Natural. Industrial or port use and development are prohibited.~~
- ~~9. Aquatic. Water dependent industrial or port use and development are permitted, subject to the use and development regulations of the abutting upland shoreline area designation. Log storage may be permitted as a conditional use.~~

23.4100.210-125 Cherry Point Management Area.

~~A. Policies.~~

~~B. Purpose and Intent.~~

~~C. The purpose of the Cherry Point management area is to provide a regulatory framework that recognizes and balances the special port, industrial and natural resource needs associated with the development of this marine resource. This section identifies policies and regulations for water-dependent industrial activities that apply in addition to specific other elements of this program as referenced herein.~~

Comment [AP196]: Moved from 23.40.220.

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- 1 D. Washington State natural resource agencies and Whatcom County have identified certain portions
2 of the Cherry Point management area as providing herring spawning habitat and other key habitat
3 characteristics that warrant special consideration due to their importance to regional fisheries and
4 other elements of the aquatic environment.
- 5 E. Development of the Cherry Point major port/industrial urban growth area will accommodate uses
6 that require marine access for marine cargo transfer, including oil and other materials. For this
7 reason, water dependent terminal facilities are encouraged as the preferred use in the Cherry Point
8 management area. Due to the environmental sensitivity of the area, it is the policy of Whatcom
9 County to limit the number of piers to one pier, in addition to those in operation or approved as of
10 January 1, 1998.
- 11 F. Whatcom County should consider participation with local, state, and federal agencies, tribal
12 governments and other stakeholders in the development of a plan to address integrated
13 management of the uplands and public aquatic lands within the Cherry Point management area. The
14 development of such a plan could provide a forum and process for addressing aquatic resources by
15 all stakeholders. Elements of the plan could be adopted as future amendments to this program as
16 appropriate.
- 17 G. All development that is to be located within the Cherry Point management area, as defined in
18 Chapter ~~23.110~~ WCC, shall be subject to the policies and regulations found in this section, and shall
19 not be subject to the policies and regulations found in WCC ~~23.100.010~~ through ~~23.100.160~~, nor
20 Chapter ~~23.90~~ WCC, unless otherwise referenced in this section. The policies and regulations found
21 in this section are applicable only within the geographic boundaries of the Cherry Point
22 management area and do not apply elsewhere in the county. In the event that the provisions of this
23 section conflict with other applicable referenced provisions of this program, the policies and
24 regulations that are most protective of shoreline resources shall prevail.
- 25 H. Water Dependent Industrial Development. Only water dependent facilities that serve industrial
26 facilities should be allowed in the Cherry Point management area. Industry within the major
27 port/industrial urban growth area, as designated in the County Comprehensive Plan, which is not
28 water dependent should locate away from shoreline jurisdiction.
- 29 I. Multiple Use Facilities. Facilities that allow for multiple use of piers, cargo handling, storage, parking
30 and other accessory facilities are encouraged.
- 31 J. Public Access.
- 32 K. Where appropriate, industrial and port development within the Cherry Point management area
33 should provide public beach and shoreline access in a manner that does not cause interference with
34 facility operations or present hazards to life and property. This may be accomplished through
35 individual action or by joint, coordinated action with other developers and landowners, for example,
36 by setting aside a common public access area.
- 37 L. Special emphasis should be given to providing public beach and shoreline access for recreational
38 opportunities including but not limited to crabbing, small craft launching, surf fishing, picnicking,
39 clamming, and beach walking.

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- M. ~~Public access within the Cherry Point management area should be consistent with the Whatcom County Parks and Recreation Open Space Plan.~~
- N. ~~Shoreline Ecological Functions and Processes. In recognition of the diverse and vital ecological resources in the Cherry Point management area, consideration of probable effects of all development proposals on shoreline ecological functions and processes should be assessed with the other long term statewide interests. New port development that requires dredge and fill should not be permitted in the Cherry Point management area due to potential adverse effects on ecological functions, including fish and shellfish habitat and geohydraulic processes.~~
- O. ~~Aesthetics. All development should be designed to avoid or minimize negative visual impacts on the scenic character of the area and to ensure visual compatibility with adjacent nonindustrial zoned properties.~~
- P. ~~Site Development. All development should be constructed and operated in a manner that, while permitting water dependent uses, also protects shoreline resources, their ecological functions and processes, and that incorporates the following:~~
- Q. ~~Low impact development approaches to avoid or minimize adverse impact to topography, vegetation, water quality, fish and wildlife habitat, and other natural site conditions;~~
- R. ~~Adequate temporary and permanent management measures to control erosion and sediment impacts during construction and operation; and~~
- S. ~~Adequate stormwater management facilities.~~
- T. ~~Regulations.~~
- A. All uses and modifications within the Cherry Point Management Area shall be subject to the regulations found in this section (as well as those of Title 20, Zoning), and not those of WCC 23.40.120 (Industrial and Port Development). Where this section differs from WCC 23.40.120, the regulation(s) of this section shall govern.
- A.B. Allowed Uses.
1. Water-dependent industrial and port uses are allowed within the Cherry Point management area only upon finding; provided, that specific findings are made in a shoreline substantial development permit or conditional use permit that:
 - a. Policies for optimum implementation of the statewide interest have been achieved through protection of shoreline ecological functions and processes;
 - b. The long-term statewide benefits of the development have been considered with the potential adverse impacts on ecological functions; and
 - c. Proposed mitigation measures to achieve no net loss of ecological functions and processes are incorporated in the proposal.
 2. Fuel Uses – Shoreline Permits and Requirements:
 - a. Existing legal fossil or renewable fuel refinery operations or existing legal fossil or renewable fuel transshipment facilities [as of XXX effective date] are considered permitted shoreline substantial developments.
 - b. Expansions of existing legal fossil-fuel refineries or expansions of existing legal fossil-fuel transshipment facilities shall require a shoreline conditional use permit.

Comment [CES197]: To do: need to add date once it's finalized.

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c. New or expansion of existing legal renewable fuel refinery or renewable fuel transshipment facility shall require a shoreline conditional use permit.

Comment [DN198]: Added per Council's pending draft fossil fuel amendments.

~~2-3.~~ Water-related and water-enjoyment uses are allowed only as part of public access and public recreation development, subject to the ~~findings criteria~~ in subsection (B)(1)(a) of this section.

~~3-4.~~ Accessory ~~development uses~~, which does not require a shoreline location in order to carry out ~~its~~ their support functions, shall be sited away from the land/water interface and landward of the principal use. Accessory ~~development uses~~ shall observe critical area buffers in WCC Chapter 16.16. Accessory ~~development uses~~ includes, but ~~are~~ is not limited to, parking, warehousing, open air storage, waste storage and treatment, stormwater control facilities, utility and land transport ~~development~~.

~~4-5.~~ Road, railway and utility facilities serving approved waterfront facilities related to water-dependent uses that are located and designed to minimize shoreline alteration are permitted.

~~6.~~ Waste water disposal/treatment facilities for storage or disposal of industrial or domestic waste water are prohibited, except that elements such as conveyances and outfalls shall be allowed if alternate inland sites have been demonstrated to be infeasible. Waste water conveyance systems for ships at berth shall be permitted.

~~5-7.~~ Liquid manure storage facilities and spreading and animal feeding operations and confined animal feeding operations shall be prohibited.

~~B-C.~~ Public Access.

1. Public access shall be provided in accordance with WCC 23.930.0780 (Public Access) unless it is demonstrated that public access poses significant interference with facility operations or hazards to life or property.
2. If public access meeting the criteria above is demonstrated to be infeasible or inappropriate, alternative access may be provided in accordance with WCC 23.930.0780 at a location not directly adjacent to the water such as a viewpoint, observation tower, or other areas serving as a means to view public waters. Such facilities may include interpretive centers and displays that explain maritime history and industry; provided, that visual access to the water is also provided.
3. As an alternative to on-site public access facilities, public access may be provided in accordance with a public access plan adopted as an element of the Whatcom County Parks and Recreation Open Space Plan.

~~C-D.~~ **Critical Areas.** In addition to meeting the provisions of WCC 23.30.01090-030, (Ecological Protection) ~~and critical areas~~, development and alteration shall not be located or expanded within critical areas designated pursuant to WCC Chapter 16.16 except where the site is approved for water-dependent use, and the following are met:

1. Mitigation to achieve no net loss of ecological functions and processes shall be conducted in accordance with WCC 23.930.0130 (Ecological Protection).
2. Development and alteration shall not be allowed in wetlands in the backshore area. Upland development shall demonstrate that changes in local hydrology will not decrease the viability of the wetland environment nor degrade the existing water quality within the wetland.

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3. The minimum required setback from the OHWM for all industrial and port facilities, including development components, which do not require a water's edge or water surface location shall be 150 feet; provided, that bluffs and banks greater than 10 feet in height and sloping greater than 30 percent and wetland shorelines shall have such setbacks measured from the crest of the bank or the edge of the wetland in addition to the OHWM.

4. Development and alteration other than recreation development for public and quasi-public shoreline access is prohibited on the accretion shoreforms identified on the map in Appendix C of this title, ~~subject to the regulations in this section and consistent with the conservancy and aquatic shoreline area designation policies and regulations of Chapters 23.90 and 23.100 WCC;~~ provided, that lawfully established uses or developments may be maintained subject to the provisions of WCC ~~23.50.070~~ Chapter 23.50 (Nonconforming Uses, Structures, and Lots).

~~D.~~ E. Location and Design.

1. Piers.

a. Due to the environmental sensitivity of the area, Whatcom County shall limit the number of piers to ~~one pier, in addition to~~ those in operation as of January 1, 1998.

~~a.~~ b. Piers shall be designed to accommodate only the necessary and intrinsic activities associated with the movement of material and cargo from land to water and water to land. The length of piers shall not extend beyond that which is necessary to accommodate the draft of the vessels intending to use the facility.

~~b.~~ c. Piers shall be designed to minimize interference in the intertidal zone and adverse impacts to fish and wildlife habitats.

~~c.~~ d. Piers shall be designed to minimize impacts on steep shoreline bluffs.

~~d.~~ e. All pilings in contact with water shall be constructed of materials such as concrete, steel, or other materials that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants from wave splash, rain, or runoff. Wood treated with creosote, copper chromium arsenic or pentachlorophenol is prohibited; provided, that replacement of existing wood pilings with chemically treated wood is allowed for maintenance purposes where use of a different material such as steel or concrete would result in unreasonable or unsafe structural complications; further provided, that where such replacement exceeds 20 percent of the existing pilings over a 10-year period, such pilings shall conform to the standard construction provisions of this section.

~~e.~~ f. All piers on piling structures shall have a minimum vertical clearance of one foot above extreme high water.

~~f.~~ g. Bulk storage of gasoline, oil and other petroleum products for any use or purpose is not allowed on piers, except for temporary storage under emergency situations, including oil spill cleanup. Bulk storage means non-portable storage in fixed tanks. Secondary containment shall be provided for portable containers.

Comment [CES199]: Deleted per Council's pending draft fossil fuel amendments.

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- g-h. All piers shall be located and designed to avoid impediments to navigation and to avoid depriving other properties of reasonable access to navigable waters. All piers shall be marked with navigational aids and approved for compliance with U.S. Coast Guard regulations.
2. Dredging.
- a. Dredging to accommodate water access to, or construction of, new development is prohibited. New development shall be located and designed to avoid the need for dredging. Dredging for existing development shall be the minimum necessary and shall minimize interference in the intertidal zone and impacts to fish and wildlife habitats.
- ~~b. Dredging operations, including spoil disposal, shall be conducted in accordance with policies and regulations in WCC 23.90.120, (B)(4) and (5), Dredging.~~
- ~~c. Dredging is prohibited in the accretion shoreform and backshore wetland areas described in Appendix C of this title.~~
3. ~~Landfill~~ is prohibited, except for the minimum necessary to access piers or other structures that provide access to the water. Pier design should accommodate the connection between the pier and uplands by employing a pile-supported structure to the point of intersection with stable upland soils. Limited landfill may be allowed for pier access that does not extend further toward the OHWM than existing topography. Any fill or excavation waterward of the OHWM requires a shoreline conditional use permit.
4. Excavation/Stabilization.
- a. Excavation/stabilization of bluffs is prohibited, except for the minimum necessary to access piers or other structures that provide access to the water; provided, that active feeder bluffs shall not be altered if alteration will adversely affect the existing littoral drift process. ~~New development shall avoid, rather than modify, feeder bluffs.~~
- b. Excavation/stabilization is prohibited on accretion shoreforms and in wetlands in the backshore area.
5. Shoreline stabilization defense works shall be regulated in accordance with ~~WCC 23.100.130~~ 23.40.190 and be consistent with the conservancy and aquatic shoreline ~~area~~ environment regulations of that section.
- ~~E.F. Adjacent Use.~~
1. ~~New or expanded p~~Port or industrial development adjacent to properties which are zoned for nonindustrial purposes shall provide setbacks of adequate width, to attenuate proximity impacts such as noise, light and glare; and may address scale and aesthetic impacts. Fencing or landscape areas may be required to provide a visual screen.
2. Exterior lighting shall be designed and operated to avoid illuminating nearby properties zoned for non-port or non-industrial purposes so as to not unreasonably infringe on the use and enjoyment of such property, and to prevent hazards for public traffic. Methods of controlling illumination of nearby properties include, but are not limited to, limits on height of structure, limits on light levels of fixtures, light shields and screening.

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3. The minimum setback from side property lines which intersect the OHWM for industrial and port development shall be 60 feet; provided, that:
 - i. The side yard setback shall not apply to utility or security structures such as poles, meters, fences, guard houses, power vaults or transformers; and
 - ii. The side yard setbacks for parcels adjoining the NW and SE boundaries of the Cherry Point management area shall be administered in accordance with WCC 20.68.550 (Buffer Area).
 4. Required setbacks shall not be used for storage of industrial equipment or materials, or for waste disposal, but may be used for public access or outdoor recreation.
- ~~F.G. Oil and Hazardous Materials.~~
1. Release of oil or hazardous materials on shorelines is prohibited.
 2. A management plan shall be developed for ~~new~~ permitted or conditionally permitted development for the safe handling of cargo, fuels, bilge water, and toxic or hazardous materials to prevent them from entering aquatic waters, surface or ground water. Specific provisions shall address prompt and effective clean-up of spills that may occur. Management plans shall be coordinated with state or federal spill response plans. Where a spill management/response plan has been approved by the state, said plan may be used to satisfy the requirements of this section.
 3. Necessary spill containment facilities associated with existing development may be permitted within shoreline jurisdiction where there are no feasible alternatives.
 - ~~4. Recreational Development. All recreational development shall comply with the policies and regulations of WCC 23.100.100 and be consistent with the conservancy and aquatic shoreline area regulations of that section.~~
 - ~~5. Archaeological, Historic and Cultural Resource Management. All development associated with archaeological, historic or cultural site activities shall comply with the policies and regulations of WCC 23.90.070.~~

23.40.130 Land Division

A. Additional Standards for Residential DivisionsGeneral.

1. Land divisions, including boundary line adjustments, shall not be allowed in a configuration that will require significant vegetation removal or shoreline modification or result in a net loss of shoreline ecological functions and processes at the time of development of the subdivision and/or use of each new parcel.
- ~~1.2. All new subland divisions shall provide for vegetation conservation to mitigate cumulative impacts of intensification of use within or adjacent to the shoreline that shall include compliance with vegetation conservation requirements of WCC 23.30.05023.30.040, together with replanting and control of invasive species within setbacks and open space to assure establishment and continuation of a vegetation community characteristic of a native climax community.~~
- ~~2. Residential lots created through land division in the shoreline shall only be permitted when the following standards are met:~~

Comment [CES200]: Moved from Residential section, as there are more than just residential land divisions (e.g., commercial, industrial, etc.)

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3. Land division may not be approved in cases when it can be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within a channel migration zone or floodway during the life of the development or use.
4. ~~New~~ Land division shall assure that the lots created will not require shoreline stabilization in order for reasonable development to occur. ~~New~~ Land division that would require shoreline stabilization is prohibited.
5. ~~New or expanded subdivisions and all multiunit residential developments shall provide a community recreation and/or open space area for the benefit of all residents or property owners in the development; provided, that such provisions shall not apply to lot line adjustment, lot consolidation, and subdivision of land into four or fewer lots.~~
6. ~~5. New or amended sub~~ Land divisions of four or fewer lots adjacent to the shoreline shall provide common access to the shoreline for all lots, consistent with ~~, except those for lot line adjustment and lot consolidation purposes, shall provide public access as provided for in~~ WCC 23.930.0780 (Public Access) and this section.
7. ~~All new sub~~ land divisions shall record a prohibition on ~~new~~ private docks on the face of the plat. An area for shared moorage may be approved if it meets all requirements for shared moorage in WCC 23.40.150100.099 (Moorage), including demonstration that ~~public and private~~ marinas and ~~other boating facilities~~ launch ramps are not sufficient to meet the moorage needs of the subdivision.
8. ~~7. Subdividing tidelands for sale or lease in connection with individual building lots is prohibited.~~
9. ~~8. Substandard shoreline lots unsuitable for development of a primary permitted use under the WCC Official Zoning Ordinance (Title 20 (Zoning)) and this program shall not be subdivided.~~
10. ~~9. Land divisions of more than four lots and, including subdivision of land for more than four parcels, shall incorporate public access to publicly owned shorelines or public water bodies shorelines of the state as provided for in WCC 23.390.0780 unless the site is designated in a shoreline public access plan for a greater component of public access or public access is demonstrated to be infeasible or inappropriate. The amount and configuration of public access shall depend on the proposed use(s) and the following criteria:~~
 - a. Subdivisions ~~within the shoreline~~ that have views of water areas shall provide a public pedestrian viewing area.
 - b. Subdivisions adjacent to ~~public waterways, waters of the state and marine waters~~ shall provide access to a point ~~that abutts~~ the water that will provide visual access, and shall provide physical access to public waterways, public marine waters, and public tidelands that are physically accessible at low tide or low water.
 - c. Subdivisions subject to requirements for dedication of land to provide open space or mitigate recreation demands of the development shall dedicate such land on or adjacent to public waterways or marine shorelines, as applicable, unless the ecological sensitivity of such land precludes public access. Portions of the area dedicated may be fenced or otherwise restricted to limit public access to ecologically sensitive areas.

Comment [CES201]: Covered elsewhere.

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~~11.10.~~ Clustering and other low-impact development techniques may be required where appropriate to minimize physical and visual impacts on shorelines.

~~23.4100.120-140~~ **Mining.**

~~Mining in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.~~

~~A. Policies.~~

~~A. Mining should not be located on shorelines where unavoidable adverse impacts on other users or resources together equal or outweigh the benefits from mining.~~

~~B. Mining should not interfere with public recreation on the shoreline.~~

~~C. Mining should be located and operated so as to provide long term protection of water quality, fish and wildlife, and fish and wildlife habitat.~~

~~D. Mining, particularly surface or strip mining, should provide for timely restoration of disturbed areas to a biologically productive, semi-natural, or other useful condition through a reclamation process consistent with regulations administered by the Department of Natural Resources and other applicable county standards.~~

~~E. Mining of marine and lake shores or accretional shoreforms, such as point bars, that have a high value for recreation or as fish or wildlife habitat should generally not be permitted.~~

~~F. Mining should only be permitted on accretion point and channel bars where appropriate studies and detailed operation plans demonstrate that:~~

~~a. Fish habitat, upland habitat and water quality will not be significantly impacted; and~~

~~b. The operation will not adversely affect geohydraulic processes, channel alignment, nor increase bank erosion or flood damages.~~

~~G. Mining operations should be located, designed, and managed so that other appropriate uses are not subjected to substantial or unnecessary adverse impacts from noise, dust or other effects of the operation. The operator may be required to implement measures such as buffers, limited hours, or other mitigating measures for the purpose of minimizing adverse proximity impacts.~~

~~B. Regulations.~~

~~A. General.~~

~~1. The removal of gravel for flood management purposes shall be regulated in accordance with the policies-regulations for under of WCC 23.100.06023.40.100 (Flood Hazard Reduction Control Works and Instream Structures) as well as this section.~~

~~1.2. New m~~ Mining and associated activities shall be designed and conducted to result in no net loss of shoreline ecological functions and processes in accordance with WCC ~~23.90.03023.30.010~~ (Ecological Protection). Mining should not be approved where it could interfere with shoreline ecological functions or processes or cause irreparable damage to shoreline resources or features such as accretion shoreforms. Application of this standard shall include avoidance and mitigation of adverse impacts during the course of mining and reclamation. The determination of whether there will be no net loss of ecological function shall be based on an evaluation of the reclamation plan required for the site and shall consider impacts on ecological functions during

Comment [DN202]: Removed sections which are not required by the WAC and provided only WAC specific requirements, except for the retained section on scalping, below.

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operation. Preference shall be given to mining proposals that result in the creation, restoration, or enhancement of habitat for priority species.

3. Permit requirements for mining should be coordinated with the requirements of RCW Chapters 78.44 (Surface Mining) and 77.55 (Construction Projects in State Waters).
4. The proposed subsequent use of mined property shall be consistent with the provisions of the environment designation in which the property is located. Reclamation of disturbed shoreline areas shall provide appropriate ecological functions consistent with the setting.
5. Pursuant to RCW 90.48.615, motorized or gravity siphon aquatic mining or discharge of effluent from such activity to any waters of the state that has been designated under the endangered species act as critical habitat, or would impact critical habitat for salmon, steelhead, or bull trout is prohibited. This section does not apply to:
 - a. Aquatic mining using nonmotorized methods, such as gold panning, if the nonmotorized method does not involve use of a gravity siphon suction dredge;
 - b. Mining operations where no part of the operation or discharge of effluent from the operation is to waters of the state;
 - c. Surface mining operations regulated by the State Department of Natural Resources under Title 78 RCW;
 - d. Metals mining and milling operations as defined in chapter 78.56 RCW; or
 - e. Activities related to an industrial facility, dredging related to navigability, or activities subject to a clean water act section 404 individual permit.
- a. Mining shall not be permitted in critical areas except as a part of an approved flood control program or in conjunction with a habitat restoration or enhancement plan; provided, that such activities may be permitted where demonstrated to be water dependent. A determination of water dependency shall be based on evaluation of geologic factors such as the distribution and availability of mineral resources for that jurisdiction, as well as evaluation of need for such mineral resources, economic, transportation, and land use factors. This showing may rely on analysis or studies prepared for purposes of GMA designations, be integrated with any relevant environmental review conducted under SEPA (Chapter 43.21C RCW), or otherwise be shown in a manner consistent with RCW 90.58.100(1) and WAC 173-26-201(2)(a).
- b. Application for permits for mining operations shall be accompanied by operation plans, reclamation plans and analysis of environmental impacts in accordance with WCC 20.73.700. Such information shall provide sufficient documentation to make a determination as to whether the project will result in net loss of shoreline ecological functions and processes during the course of mining and after reclamation. Creation, restoration, or enhancement of habitat for priority species and the future productivity of the site may be considered in determining no net loss of ecological functions.
- c. The applicant/proponent must show that mining is dependent on a shoreline location, and that demand cannot reasonably be accommodated in operations outside shoreline jurisdiction. Information required to meet this criterion shall evaluate geologic factors such as the

Comment [CES203]: From RCW 90.48.615.

Comment [AP204]: Covered by CAO.

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distribution and availability of mineral resources as well as evaluation of need for such mineral resources, economic, transportation, and land use factors.

d. Where a lawfully established mining operation has resulted in the creation of a lake(s) greater than 20 acres and such lake(s) is subject to the provisions of the shoreline management program and the Act, such lake(s) shall be given a resource shoreline area designation. Notwithstanding any other applicable regulations, such mining operations shall be permitted to continue and may be expanded subject to approval of a shoreline conditional use permit.

e. Reclamation Plan.

i. A reclamation plan that complies with the format and detailed minimum standards of Chapter 78.44 RCW shall be included with any shoreline permit application for mining.

ii. A reclamation plan that is inconsistent with this program or the Act shall constitute sufficient grounds for denial of a shoreline permit; provided, that the applicant/proponent shall be given reasonable opportunity to revise the plan.

f. Overburden:

i. Overburden or other mining spoil or non-putrescible solid wastes shall be disposed of in an appropriate manner to protect shoreline ecological functions and processes, other uses, and aesthetic values.

ii. Disposal of overburden or mining spoil on shorelines shall comply with landfill policies and regulations of WCC 23.90.100.

g. Surface Oil, Coal Bed or Gas Drilling. As provided in the Act (RCW 90.58.160), surface drilling for oil or gas is prohibited in the waters of Puget Sound north to the Canadian boundary and the Strait of Juan de Fuca waterward from OHWM and on all lands within 1,000 feet landward therefrom. Coal bed drilling is also prohibited.

B. Marine and Lake Shores.

a. Mining of, including but not limited to, sand, gravel, cobbles, or boulders from any marine or lake shore is prohibited.

b. Mining of quarry rock may be permitted as a conditional use; provided, that shore processes and resources are not adversely affected.

B. Additional Standards for Rivers and Streams.

1. Mining waterward of the ordinary high-water mark of a river shall not be permitted unless:

a. Removal of specified quantities of sand and gravel or other materials at specific locations will not adversely affect the natural processes of gravel transportation for the river system as a whole; and

b. The mining and any associated permitted activities will not have significant adverse impacts to habitat for priority species nor cause a net loss of ecological functions of the shoreline.

a-c. The determinations required by this section shall be made consistent with RCW 90.58.100(1) and WAC 173-26-201(2)(a). Such evaluation of impacts should be appropriately integrated with relevant environmental review requirements of SEPA (chapter 43.21C RCW) and the SEPA rules (chapter 197-11 WAC).

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- 1 | d. In considering renewal, extension, or reauthorization of gravel bar and other in-channel
2 | mining operations in locations where they have previously been conducted, the County shall
3 | require compliance with this subsection to the extent that no such review has previously
4 | been conducted. Where there has been prior review, the County shall review previous
5 | determinations comparable to the requirements of this section to assure compliance with
6 | this section under current site conditions.
- 7 | ~~b.e. The provisions of this section do not apply to dredging of authorized navigation channels~~
8 | ~~when conducted in accordance with WCC 23.40.080 (Dredging and Dredge Material~~
9 | ~~Disposal).~~
- 10 | 2. ~~Mining within any designated channel migration zone (CMZ) may be approved as~~ shall require a
11 | shoreline conditional use.
- 12 | ~~1-3. Scalping of accretional point bars may be permitted as a shoreline conditional use for flood~~
13 | ~~hazard reduction control purposes and or market demands commercial purposes under the~~
14 | ~~following conditions:~~
- 15 | a. Removal of specified quantities of sand and gravel or other materials at specific locations
16 | will not adversely affect the natural processes of gravel transportation for the river system
17 | as a whole. Specific studies accompanying the application shall demonstrate that no adverse
18 | flood, erosion, or other environmental impacts occur either upstream or downstream of
19 | extraction sites. Mining extraction amounts, rates, timing, and locations shall be based on a
20 | scientifically determined sediment budget adjusted periodically according to data provided
21 | by a regular monitoring plan.
- 22 | b. Aggregate washing and ponding of waste water are prohibited in floodways.
- 23 | c. Storage within the FEMA floodway is prohibited in the shoreline during the flood season
24 | (November 1st through March 1st); provided, that temporary stockpiling is permitted during
25 | working hours if all such materials are removed from the floodway at the end of each day's
26 | operation.
- 27 | d. All applicable permits and approvals, including, but not limited to, hydraulic project approval
28 | (HPA) from the Department of Fish and Wildlife and a Whatcom County flood permit, shall
29 | be obtained and all applicable provisions attached thereto shall be adhered to.
- 30 | ~~c. Open pit mining may be permitted in a floodplain; provided, that all of the following criteria are~~
31 | ~~met:~~
- 32 | i. ~~All pits and other operations should be located outside of the channel migration zone.~~
33 | ii. ~~All pits of each operation should be located and excavated to a depth so as to function as a~~
34 | ~~self flushing chain of lakes whenever the pits are overtopped by floods in order to prevent~~
35 | ~~eutrophication and fish entrapment.~~
- 36 | iii. ~~The entire operation should be sized and designed so that neither additional bank erosion,~~
37 | ~~catastrophic changes in channel location, nor adverse impact to fish resources or water~~
38 | ~~quality will likely result in the long term.~~

Comment [AP205]: Updated for consistency with WAC 173-26-241(3)(h).

Comment [DN206]: Not specifically required by the WAC. Proposed for removal.

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- iv. ~~The scale and mode of operation will not have adverse impacts on fish resources, water quality, and recreation resources, nor adversely impact a stream's natural capacity to erode, shift, accrete, and/or flood.~~
- v. ~~All equipment, works and structures are designed to withstand flooding without becoming a hazard in themselves nor causing adverse effects on shore features, without the necessity for shore stabilization structures.~~
- vi. ~~All structures or equipment which are not flood-proof shall be located outside of the 100-year floodplain during the flood season (November 1st through March 1st); provided, that such equipment is permitted during daily operations.~~

C. Regulations for Specific Shoreline Environment Designations

- 1. In the Aquatic shoreline environment mining is prohibited, except that accretional bar scalping in streams may be permitted as a shoreline conditional use; provided, that upon approval by the County and Ecology of a sediment management plan component for a mutually designated reach of river, including incorporating the findings of a programmatic environmental impact statement, the shoreline conditional use requirement will no longer be in effect unless mutually agreed to in said management plan.

D. ~~Shoreline Area Regulations.~~

~~Urban. Mining is prohibited.~~

~~Urban Resort. Mining is prohibited.~~

~~Urban Conservancy. Mining is prohibited.~~

~~Shoreline Residential. Mining is prohibited.~~

~~Rural. Mining may be permitted as a conditional use subject to policies and regulations of this program.~~

~~Resource. Mining may be permitted as a conditional use subject to policies and regulations of this program.~~

~~Conservancy. Mining may be permitted as a conditional use subject to policies and regulations of this program.~~

~~Natural. Mining is prohibited.~~

- 1. Aquatic. Mining is prohibited, except that accretional bar scalping in streams may be permitted as a conditional use subject to policies and regulations of this program; provided, that upon approval by the county and Ecology of a sediment management plan component for a mutually designated reach of river, including incorporating the findings of a programmatic environmental impact statement, the conditional use requirement will no longer be in effect unless mutually agreed to in said management plan.

Comment [CES207]: Moved from removed 'Shoreline Area Regulations.'

Comment [CES208]: Addressed in the use table now.

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23.110.130-150 Moorage Structures—Docks, Piers and Mooring Buoys.

A. Policies.

- A. Moorage associated with a single family residence is considered a water dependent use; provided, that it is designed and used as a facility to access watercraft, and other moorage facilities are not available or feasible. Moorage for water related and water enjoyment uses or shared moorage for multifamily use should be allowed as part of a mixed use development or where it provides public access.**
- B. New moorage, excluding docks accessory to single family residences, should be permitted only when the applicant/proponent has demonstrated that a specific need exists to support the intended water dependent or public access use.**
- C. As an alternative to continued proliferation of individual private moorage, mooring buoys are preferred over docks or floats. Shared moorage facilities are preferred over single user moorage where feasible, especially where water use conflicts exist or are predictable. New subdivisions of more than two lots and new multifamily development of more than two dwelling units should provide shared moorage.**
- D. Docks, piers and mooring buoys, including those accessory to single family residences, should avoid locations where they will adversely impact shoreline ecological functions or processes, including currents and littoral drift.**
- E. Moorage should be spaced and oriented in a manner that minimizes hazards and obstructions to public navigation rights and corollary rights thereto such as, but not limited to, fishing, swimming and pleasure boating, as well as private riparian rights of adjacent land owners.**
- F. Moorage should be restricted to the minimum size necessary to meet the needs of the proposed use. The length, width and height of piers and docks should be no greater than that required for safety and practicality for the primary use.**
- G. Pile supports are preferred over fills because piles do not displace water surface and intertidal or aquatic habitat and are removable and thus more flexible in terms of long term use patterns. Floats may be less desirable than pile structures where aquatic habitat or littoral drift are significant.**
- H. The use of buoys for small craft moorage is preferred over pile or float structures because of lesser long term impact on shore features and users; moorage buoys should be placed as close to shore as possible to minimize obstruction to navigation.**
- I. Shoreline resources and water quality should be protected from overuse by boaters living on vessels (live aboards). Boaters living on vessels are restricted to established marinas with facilities to address waste handling and other sanitary services.**
- J. Vessels should be restricted from extended mooring on waters of the state unless authorization is obtained from the DNR and impacts to navigation and public access are mitigated.**
- K. Piers and docks should be constructed of materials that will not adversely affect water quality or aquatic plants and animals in the long term.**
- L. New pier and dock development should be designed so as not to interfere with lawful public access to or use of shorelines. Developers of new piers and shared moorage should be encouraged to**

Comment [AP209]: Revised per Scoping Document, Items #11a and 11b and includes a general overhaul to include more specifications.

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provide physical or visual public access to shorelines whenever safe and compatible with the primary use and shore features.

~~B. Regulations.~~

A. General.

1. This section applies to all moorage structures. Marinas and boat launches are regulated pursuant to Moorage including docks, piers and mooring buoys in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC. Shared moorage with more than four berths and Boat launching facilities are regulated under WCC 23.40.060100-040; (~~Boating Facilities~~—Marinas and Launch Ramps).

2. No pier or dock shall be used for a residence.

3. Public access facilities shall be regulated pursuant to WCC 23.30.0760 (Public Access).

4. Commercial moorage shall be permitted only for water-dependent uses, and only if the applicant/proponent demonstrates that existing facilities in the vicinity, including marinas and shared moorage, are not adequate or feasible for the proposed water-dependent use.

5. Commercial covered moorage may be permitted only where vessel construction or repair work is to be the primary activity and covered work areas are demonstrated to be the minimum necessary over water, including demonstration that adequate upland sites are not feasible.

6. Moorage structures shall not be permitted within the following shoreline habitats because of their scarcity, biological productivity, and sensitivity:

a. Feeder bluffs and accretion shoreforms;

b. Marshes and other wetlands;

c. Kelp and eelgrass beds; and,

d. Areas of high energy or shallow sloping bottoms (<2% gradient) in the marine environment.

7. Moorage structures shall not be permitted within the following shoreline habitats because of their scarcity, biological productivity, and sensitivity unless no alternative location is feasible, the project would result in a net enhancement of shoreline ecological functions, and the proposal is otherwise consistent with this program:

a. Estuaries;

b. Tidal pools on rock shores;

c. Spawning and holding areas for forage fish (such as herring, surf smelt and sandlance);

d. Subsistence, commercial and recreational shellfish beds; and

e. Other critical saltwater or freshwater habitats.

8. Other than for day use, all vessels mooring on waters of the state must obtain a lease or permission from the State Department of Natural Resources, except as allowed by applicable state regulations.

9. No moorage shall impact the rights of navigation or public access, unless mitigated.

~~10.~~ When there is not a moorage structure, marine rails are permissible, but shall be supported with as few piles as practicable.

~~B. Dimensional Standards—Freshwater.~~

Comment [CES210]: Revised per Scoping Document, Item #8c. This language is carried over from an existing regulation in the Boating Facilities section of the SMP related to marinas and boat launches.

Comment [CES211]: Added per DOE recommendation.

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- 1 | 1. Freshwater – New overwater Moorage structures in freshwater environments may be
2 permitted, subject to the following:
3

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	Design and Dimensional Standards
<u>Maximum Area: surface coverage, including all attached float decking, platform lifts, covered moorage, ramps, ells, and fingers</u>	<ul style="list-style-type: none"> • 480 sq. ft. for an individual use dock or pier • 700 sq. ft. for a shared moorage facility used by 2 residential property owners • 1,000 sq. ft. for a shared moorage facility used by 3 or more residential property owners • Public and commercial moorage structures shall be limited to the minimum area needed to accommodate the intended use. • These area limitations shall include platform lifts • Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of 5.5 feet measured below ordinary high water mark, an additional 4 sq. ft. of area may be added for each additional foot of pier or dock length needed to reach 5.5 feet of water depth at the waterward end of the pier or dock; provided, that all other area dimensions, such as maximum width and length, have been minimized.
<u>Maximum Width</u>	<ul style="list-style-type: none"> • For moorage structures accessory to a residential use: <ul style="list-style-type: none"> ◦ 4 feet for pier or dock walkway or ramp ◦ 6 feet for ells ◦ 2 feet for fingers ◦ 6 feet for float decking • Public and marina moorage structures shall be a maximum of 6 feet for all elements unless a need for a larger size is demonstrated
<u>Height</u>	<ul style="list-style-type: none"> • Minimum of 1.5 feet above ordinary high water to bottom of pier stringers, except the floating section of a dock and float decking attached to a pier
<u>Maximum Length</u> <ul style="list-style-type: none"> ◦ Marine Rails ◦ Floats ◦ Overall Dock Length 	<ul style="list-style-type: none"> • 20 feet waterward from the ordinary high water mark • 20 feet per user (e.g. single user – 20 feet, 2-users – 40 feet, etc.)for float decking • Minimum necessary to obtain a moorage depth of 5.5 feet measured below ordinary high watermark at the waterward end of the dock.
<u>Decking for piers, docks, walkways, platform lifts, ells, and fingers</u>	<ul style="list-style-type: none"> • Floats 6 feet wide or less must have at least 30% of the deck surface covered in functional grating • Floats greater than 6 feet wide must have at least 50% of the deck surface covered in functional grating • All other dock components must have 100% of the deck surface covered in functional grating • The open area of functional grating must be at least 60% • Replacement of more than 33% or 250 sq. ft., whichever is greater, of decking or replacement of decking substructure requires installation of functional grating in the replaced portion only

C. ~~Dimensional Standards – Marine:~~

~~4.2. Marine – New overwater Moorage~~ structures in marine environments may be permitted, subject to the following; provided that port, industrial, and commercial piers and floats shall be the minimum area, length, and width necessary for the intended use:

	Design and Dimensional Standards
<u>Maximum Area: surface coverage, including all components</u>	<ul style="list-style-type: none"> • 480 sq. ft. for an individual use dock or pier • 700 sq. ft. for a shared moorage facility used by 2 residential property owners • 1,000 sq. ft. for a shared moorage facility used by 3 or more residential property owners

Comment [CES212]: Standards updated to meet the requirements of the Army Corps of Engineers' Regional General Permit 6 (RGP-6): Structures in Inland Marine Waters of Washington State, updated 2/12/20.

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	<ul style="list-style-type: none"> Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of -9.5 feet mean low low water as measured at the waterward end of the dock, an additional 4 sq. ft. of area may be added for each additional foot of pier or dock length needed to reach -9.5 feet mean low low water as measured at the waterward end of the pier or dock; provided, that all other area dimensions, such as maximum width and length, have been minimized
Maximum Width	<ul style="list-style-type: none"> For moorage structures accessory to a residential use: <ul style="list-style-type: none"> 4 feet for single use or 6 feet for joint use for pier or dock walkway or ramp 6 feet for ellis 2 feet for fingers 8 feet for float decking For a joint use structure pier – 86 feet Public and marina moorage structures shall be a maximum of 6 feet for all elements unless a need for a larger size is demonstrated
Height	<ul style="list-style-type: none"> Maximize height over the bed to improve light transmission The bottom of the pier must be at least six feet above the bed at the landward end
Maximum Length	<ul style="list-style-type: none"> Marine Rails – 20 feet Floats – 30 feet per user (e.g., single-user – 30 feet, 2-users – 60 feet, etc) Overall Dock Length – Minimum necessary to obtain a moorage depth of -9.5 feet mean low low water as measured at the waterward end of the dock.
Decking	<ul style="list-style-type: none"> Floats must have at least 50% of the deck surface covered in functional grating. Piers, stairs, ramps, and platform lifts must have 100% of the deck surface covered in functional grating Grating openings should be oriented lengthwise in the eastwest direction to the maximum extent practicable. Grating must not be covered (on the surface or underneath) with any items (e.g., kayaks, planters, sheds, lawn chairs, etc.) except utility boxes. Grating must be either multi-directional grating with a minimum of 40% open space or square grating with a minimum of 60% open space. Provide documentation to show amount of % open area. Replacement of more than 10% or 48 sq. ft. of decking or replacement of decking substructure requires installation of functional grating in the replaced portion only

Comment [DOE-Req213]: Required Change – This change removes the ambiguous reference to an 8-foot maximum associated with joint use structures. After consultation with Whatcom County PDS staff, these changes clarify the original intent that the 8-foot width maximum applied to joint-use residential moorage structures. Staff also suggested limiting the maximum width of such structures to 6-feet.

Comment [CES214]: Revised based on USACE standards.

C. Construction Standards for ~~Overwater~~ Moorage Structures.

- Piers and docks shall be the minimum size necessary to meet the needs of the proposed water-dependent use, ~~and shall observe the following criteria:~~
- ~~Piers and docks~~ Moorage structures shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions of a pier or dock, decking and other components that may come in contact with water shall be approved by applicable state agencies for use in water to avoid discharge of pollutants from wave splash, rain or runoff. Wood treated with creosote, pentachlorophenol or other similarly toxic materials is prohibited. Piers and docks in lakes providing a public water supply shall be constructed of untreated materials, such as untreated wood, approved plastic composites, concrete or steel.
- Piers and docks shall use pile supports unless engineering studies demonstrate that pile supports are insufficient to ensure public safety. Riprapped or bulkheaded fills may be approved

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for public projects only and only as a shoreline conditional use and only when demonstrated that no feasible alternative is available. Mitigation shall be provided to ensure no net loss of shoreline ecological functions and processes.

4. Approaches to piers and docks shall use piers or other structures to span the entire upper foreshore to the point of intersection with stable upland soils and shall be design to avoid interference with littoral drift or wave refraction. Limited fill or excavation may be allowed landward of the OHWM to match the upland with the elevation of the pier or dock.

5. Pile diameter shall be the minimum necessary and pile spacing shall be the maximum feasible to minimize shading and avoid a “wall” effect that would block or baffle wave patterns, currents, littoral drift, or movement of aquatic life forms, or result in structure damage from driftwood impact or entrapment. Piles supporting a new pier must be spaced no closer than 20 feet apart.

- 5-6. Offshore and foreshore pile structures shall allow for continuity of hydraulic energy patterns, unless specifically designed to reduce wave impact on shores.

7. Flotation for the float shall be fully enclosed and contained in a shell (e.g., polystyrene tubs not shrink wrapped or sprayed coatings) that prevents breakup or loss of the flotation material into the water and is not readily subject to damage by ultraviolet radiation and/or abrasion caused by rubbing against piling and/or waterborne debris.

8. Flotation components shall be installed under the solid portions of the float, not under the grating.

9. If the project includes the replacement of existing piling, they should be either partially cut with a new piling secured directly on top, fully extracted, or cut 2 feet below the mudline. If treated piling are fully extracted or cut, the holes or piles must be capped with clean, appropriate material.

- 6-10. A maximum of two moorage pilings may be installed to accommodate the moorage of boats exceeding the length of the floats.

11. Overhead wiring or plumbing is not permitted on moorage structures.

12. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night. Exterior finish shall be generally non-reflective.

13. Moorage facilities shall be constructed and maintained so that no part of a facility creates hazardous conditions nor damages other shore property or natural features during predictable flood conditions. Floats shall be securely anchored.

14. Water supply, sewage disposal and disposal of nonhazardous materials associated with activities on docks and piers shall conform to applicable health standards.

15. No private or shared moorage may be constructed to within 200 feet of OHWM on the opposite shore of any lake or semi-enclosed body of water such as a bay, cove, or natural channel. This restriction shall not apply within marinas, dredged canal systems or approved marina-home developments.

16. Storage of fuel, oils, and other toxic materials is prohibited on docks and piers except portable containers when provided with secondary containment.

Comment [AP215]: Added per Scoping Document, Item #5e. This provision is consistent with WAC requirements to require a CUP for any fill waterward of the OHWM.

Comment [CES216]: Updated to meet the requirements of the Army Corps of Engineers' Regional General Permit 6 (RGP-6): Structures in Inland Marine Waters of Washington State, updated 2/12/20.

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17. The width of landings, stairways, or steps must not exceed 4 feet for single-use and 6 feet for joint-use.
18. Additional standards for marine moorage structures:
 - a. Floats may be held in place with lines anchored with a helical screw or “duckbill” embedded anchor, piles with stoppers and/or float support/stub piles. (1) For a single-user float, a maximum of 4 piles (not including stub piles) or embedded anchors may be installed. (2) For a joint-use float, a maximum of 8 piles (not including stub piles) or embedded anchors may be installed. (3) If embedded anchors need to be utilized, the anchor lines shall not rest on the substrate at any time; each must contain a mid-line float. (4) Only if the substrate prohibits use of piles or embedded anchors may a Corps-approved alternative be used. (5) If a concrete anchor or other Corps-approved alternative is needed to hold the float, calculations showing that it will hold without dragging or breaking during storm events are required. This analysis should include the size of the float and the dry weight and dimensions of the anchor.
 - b. If the float is positioned perpendicular to the ramp, a small access float may be installed to accommodate tidal movement of the ramp. The access float cannot be larger than 6 feet wide and 10 feet long.
 - c. No floats may be installed in the Upper Shore Zone (area landward of +5 MLLW).
 - d. Float Stops:
 - i. To suspend the float above the substrate at all tides, float stops should be installed on piles anchoring floats. This method is preferred over (d)(ii) and(d)(iii) because float stops are less impacting to the marine environment.
 - ii. If float stops attached to piles are not feasible (provide explanation) then up to four 10-inch diameter stub piles may be installed.
 - iii. Float “feet” attached to the float are an option if the substrate consists of coarse material as described in the column to the right
19. Additional standards for marine mooring buoys:
 - a. Mooring buoys shall be placed at a distance specified by the Washington Department of Fish and Wildlife, the Washington Department of Natural Resources, and the U.S. Coast Guard to balance the goals of avoiding nearshore habitat and minimizing obstruction to navigation. Anchors and other design features shall meet Washington Department of Fish and Wildlife standards.
 - b. The location (latitude/longitude) of the anchor for the buoy must be identified on the project drawings.
 - c. Anchor lines must not rest or drag on the substrate, and a midline float must be installed to prevent this.
 - d. Anchors should be helical screw or another type of embedded anchor. Only if the substrate prohibits use of embedded anchors may alternative anchors (i.e., concrete block) be used. If an embedded anchor cannot be used and a concrete anchor is needed, calculations showing that the anchor will hold without dragging or breaking during storm events is required. This

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analysis should include the size of the vessel and the dry weight and dimensions of the anchor.

e. No other moorage structures may be anchored within a 117-foot radius (with the proposed buoy in the center of the 117-foot radius circle, which would result in a concentration of no more than one per acre) of the proposed buoy.

f. New mooring buoys may not be installed in any waterbody the Washington State Department of Health has designated as “threatened” or “closed” to shellfish harvesting due to the number of boats moored there.

~~D. Private recreational moorage for individual lots is permitted in existing subdivisions approved on or before January 28, 1993, only where shared moorage has not already been developed. Prior to development of a new dock for a single residential lot, the applicant/proponent shall demonstrate that:~~

~~E. Existing facilities in the vicinity, including marinas and shared moorage, are not adequate or feasible for use;~~

~~F. On marine shorelines, alternative moorage, such as mooring buoys or a dock sized to accommodate a tender to provide access in conjunction with a mooring buoy, are not adequate or feasible; and~~

~~G. The applicant/proponent has contacted abutting property owners and none have indicated a willingness to share an existing dock or develop a shared moorage in conjunction with the applicant/proponent.~~

~~H. If allowed, only one private dock shall be permitted on a shoreline residential lot.~~

~~I. Shared moorage shall be required in accordance with the following to prevent the proliferation of moorage facilities:~~

~~J. Shared moorage shall be provided for all new residential developments of more than two dwelling units. New subdivisions shall contain a restriction on the face of the plat prohibiting individual docks. A site for shared moorage should be owned in undivided interest by property owners within the subdivision. Shared moorage facilities shall be available to property owners in the subdivision for community access and may be required to provide public access depending on the scale of the facility. If shared moorage is provided, the applicant/proponent shall file at the time of plat recordation a legally enforceable joint use agreement or other legal instrument that, at minimum, addresses the following:~~

~~K. Apportionment of construction and maintenance expenses;~~

~~L. Easements and liability agreements; and~~

~~M. Use restrictions.~~

~~N. On marine shorelines a dock or pier may be approved only if it is not feasible to provide mooring buoys with an adequate landing area or a dock sized to accommodate tenders.~~

~~O. Where a multifamily residential development, camping club or subdivision development provides shared moorage, space for the number of waterfront lots or dwelling units may be provided with an additional provision for sites without water frontage up to a ratio of 1.25 moorage spaces per total lots or units.~~

Comment [CES217]: Added to meet the requirements of the Army Corps of Engineers' Regional General Permit 6 (RGP-6): Structures in Inland Marine Waters of Washington State, updated 2/12/20.

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- 1 ~~P. Prior to issuing a permit for shared moorage, a proponent shall file with the Whatcom County~~
2 ~~auditor a legally enforceable joint use agreement that, at minimum, addresses the following:~~
- 3 ~~Q. Apportionment of construction and maintenance expenses;~~
4 ~~R. Easements and liability agreements; and~~
5 ~~S. Use restrictions.~~
- 6 ~~T. Commercial docks shall be permitted only for water dependent uses, and only if the~~
7 ~~applicant/proponent demonstrates that existing facilities in the vicinity, including marinas and~~
8 ~~shared moorage, are not adequate or feasible for the proposed water dependent use.~~
- 9 ~~U. Private moorage for float planes may be permitted as a conditional use where construction will not~~
10 ~~adversely affect shoreline functions or processes, including wildlife use. Ecological restoration may~~
11 ~~be required to compensate for the greater intensity of activity associated with the use.~~
- 12 ~~V. If allowed under the provisions of this program, only one private dock with one accessory float, one~~
13 ~~boat lift, and one covered moorage accessory to a permitted moorage, shall be permitted on a~~
14 ~~shoreline lot owned for residential or private recreational use.~~
- 15 ~~W. Docks with or without a float shall be the minimum size required to provide for moorage. Single-~~
16 ~~family docks and floats shall not exceed 40 feet in length measured perpendicularly from the OHWM~~
17 ~~nor exceed three feet in height above the extreme high water level. Shared moorage may extend to~~
18 ~~80 feet in length if demonstrated to be necessary to provide adequate moorage. In the case of pile~~
19 ~~docks at marine or river locations, the height shall be limited to that which may be reasonably~~
20 ~~necessary to accommodate landing and moorage of watercraft. Commercial docks shall be the~~
21 ~~minimum length necessary to serve the type of vessel served.~~
- 22 ~~X. Private docks up to 60 feet in length or shared moorage up to 100 feet in length measured~~
23 ~~perpendicularly from the OHWM, including floats, may be permitted by the administrator in shallow~~
24 ~~areas where a dock sized to accommodate a tender to provide access to a mooring buoy is not~~
25 ~~feasible and where existing docks on adjacent properties presently extend out as far as that which is~~
26 ~~proposed, and where such added length is necessary in order to allow a reasonable use of the dock,~~
27 ~~as determined based upon adjacent uses; and where the extension in dock length will not adversely~~
28 ~~affect ecological processes and functions, provided the required dock length is the minimum~~
29 ~~necessary to achieve such purposes. Docks that cannot reasonably meet this standard may request a~~
30 ~~review under the variance provisions of this program.~~
- 31 ~~Y. Moorage shall be designed to avoid the need for maintenance dredging. The moorage of a boat~~
32 ~~larger than provided for in the original moorage design shall not be grounds for approval of d~~
- 33 ~~Z. In order to minimize impacts on nearshore areas and avoid reduction in ambient light level:~~
- 34 ~~AA. The width of piers, docks and floats shall be the minimum necessary and shall not exceed four feet~~
35 ~~in width, except where specific information on use patterns justifies a greater width. Marine floats~~
36 ~~shall not exceed eight feet in width nor 40 feet in length and freshwater floats shall not exceed six~~
37 ~~feet in width and 20 feet in length unless authorized by a variance. Exceptionally large vessels or~~
38 ~~vessels that require a relatively deep draft may be required to use a buoy, other alternative mooring~~
39 ~~scheme, or to moor in a marina. Materials that will allow light to pass through the deck may be~~
40 ~~required where width exceeds four feet.~~

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- 1 ~~BB. Dock surfaces designed to allow maximum light penetration shall be used on walkways or~~
2 ~~gangplanks in nearshore areas.~~
- 3 ~~CC. Piers, docks and floats shall be located along a north/south orientation to the maximum extent~~
4 ~~feasible.~~
- 5 ~~DD. Private docks shall not encroach into the required sideyard setbacks for residential development~~
6 ~~(both onshore and offshore); provided, that a shared moorage may be located adjacent to or upon a~~
7 ~~side property line of the affected properties upon filing of an easement agreement or other legal~~
8 ~~instrument by the affected property owners.~~
- 9 ~~EE. Dock and Pier Design.~~
- 10 ~~FF. Moorage buoys shall be placed at a distance specified by the Washington Department of Fish and~~
11 ~~Wildlife, the Washington Department of Natural Resources, and the U.S. Coast Guard to balance the~~
12 ~~goals of avoiding nearshore habitat and minimizing obstruction to navigation. Anchors and other~~
13 ~~design features shall meet Washington Department of Fish and Wildlife standards.~~
- 14 ~~GG. A covered moorage accessory to a single family pier or dock, not accessory to a marina, shall have~~
15 ~~no walls other than an open structural framework to support a roof and shall not cover more than~~
16 ~~200 square feet nor exceed 15 feet in height above OHWM. Roof materials shall be translucent, or~~
17 ~~at least 50 percent clear skylights.~~
- 18 ~~HH. Commercial covered moorage may be permitted only where vessel construction or repair work is to~~
19 ~~be the primary activity and covered work areas are demonstrated to be the minimum necessary~~
20 ~~over water, including demonstration that adequate upland sites are not feasible.~~
- 21 ~~II. No private or shared moorage may be constructed to within 200 feet of OHWM on the opposite~~
22 ~~shore of any lake or semi-enclosed body of water such as a bay, cove, or natural channel. This~~
23 ~~restriction shall not apply within marinas, dredged canal systems or approved marina-home~~
24 ~~developments.~~
- 25 ~~JJ. If a dock is provided with railing, such railing shall not exceed 36 inches in height and shall be an~~
26 ~~open framework that does not unreasonably interfere with shoreline views of adjoining properties~~
27 ~~or lawful use of water surface~~
- 28 ~~KK. Water supply, sewage disposal and disposal of nonhazardous materials associated with activities on~~
29 ~~docks and piers shall conform to applicable health standards.~~
- 30 ~~LL. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily~~
31 ~~hazardous conditions for water surface users during the day or night. Exterior finish shall be~~
32 ~~generally non-reflective.~~
- 33 ~~MM. Moorage facilities shall be constructed and maintained so that no part of a facility creates~~
34 ~~hazardous conditions nor damages other shore property or natural features during predictable flood~~
35 ~~conditions. Floats shall be securely anchored.~~
- 36 ~~NN. No pier or dock shall be used for a residence.~~
- 37 ~~OO. Storage of fuel, oils, and other toxic materials is prohibited on docks and piers except portable~~
38 ~~containers when provided with secondary containment.~~
- 39 ~~PP. Public access facilities shall be provided in accordance with policies and regulations in~~
40 ~~WCC 23.90.080.~~

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D. Additional Standards for Individual use docks and piers Moorage.

Comment [CES218]: Updated to meet current state and federal regs & guidance

1. An individual use dock may consist of one pier, one float or platform lift, one boat lift, and one covered moorage.
2. When allowed under the provisions of this program, only one private dock shall be permitted as an accessory use to a primary use.
3. Private recreational moorage for individual lots is permitted in subdivisions approved on or before January 28, 1993, only where shared moorage has not already been developed.
4. Prior to development of a new dock for a single residential lot, the applicant/proponent shall demonstrate that:
 - a. Existing facilities in the vicinity, including marinas and shared moorage, are not adequate or feasible for use;
 - b. Alternative moorage, such as mooring buoys or a dock or marine rail system sized to accommodate a tender to provide access in conjunction with a mooring buoy, are not adequate or feasible; and
 - c. The applicant/proponent has contacted abutting property owners and none have indicated a willingness to share an existing dock or develop a shared moorage in conjunction with the applicant/proponent.
5. Private moorage for float planes may be permitted as a shoreline conditional use where construction will not adversely affect shoreline functions or processes, including wildlife use. Ecological restoration may be required to compensate for the greater intensity of activity associated with the use.
6. Private docks shall not encroach into the required sideyard setbacks for residential development (both onshore and offshore).
- 4-7. Covered moorage accessory to a single-family pier or dock shall have no walls other than an open structural framework to support a roof and shall not cover more than 200 square feet nor exceed 15 feet in height above OHWM. Roof materials shall be translucent, or at least 50 percent clear skylights.

E. Additional Standards for Shared Moorage.

1. When allowed under the provisions of this program, a shared moorage dock may be permitted for multiple users. Such docks may consist of one pier and multiple floats or platform lifts, boat lifts, and covered moorages, not to exceed the number of authorized users nor the total maximum area allowed per WCC 23.40.140(B).
2. Shared moorage shall be required in accordance with the following to prevent the proliferation of moorage facilities:
 - a. Shared moorage shall be provided for all residential developments of more than two dwelling units.
 - b. Subdivisions shall contain a restriction on the face of the plat prohibiting individual docks.
 - c. Shared moorage facilities shall be available to property owners in the subdivision for community access and may be required to provide public access depending on the scale of

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the facility. A site for shared moorage should be owned in undivided interest by property owners within the subdivision.

- d. If shared moorage is provided, the applicant/proponent shall file at the time of plat recordation a legally enforceable joint use agreement or other legal instrument that, at minimum, addresses the following:
- i. Apportionment of construction and maintenance expenses;
 - ii. Easements and liability agreements; and
 - iii. Use restrictions.
- e. On marine shorelines a dock or pier may be approved only if it is not feasible to provide mooring buoys with an adequate landing area or a dock or marine rail system sized to accommodate tenders.
- f. Where a new multifamily residential, camping club, or subdivision development proposes to provide shared moorage, space for the number of waterfront lots or dwelling units may be provided with an additional provision for sites without water frontage up to a ratio of 1.25 moorage spaces per total lots or units. This provision does not apply to existing developments.

3. Shared moorage shall be limited to the amount of moorage needed to serve lots with water frontage; provided, that a limited number of upland lots may also be accommodated. Applications for shared moorage shall demonstrate that mooring buoys are not feasible prior to approval of dock moorage. Shared moorage currently leased or proposed to be leased to upland property owners shall be reviewed as a marina.
4. Shared moorage may be located adjacent to or upon a side property line of the affected properties upon filing of an easement agreement or other legal instrument by the affected property owners.

C. ~~Shoreline Area Regulations.~~

- A. ~~Urban. Private and shared moorage are permitted subject to policies and regulations of this program. Public, commercial and industrial moorage, including expansion of existing piers, and covered moorage or floatplane moorage accessory to a permitted moorage may be permitted as a conditional use.~~
- B. ~~Urban Resort. Private, shared and public moorage, and covered moorage or floatplane moorage accessory to a permitted moorage, may be permitted as a conditional use subject to the policies and regulations of this program. Commercial moorage is prohibited, except piers serving small passenger vessels may be permitted as a conditional use. Industrial moorage is prohibited.~~
- C. ~~Urban Conservancy. Private and shared moorage on non-marine shorelines are permitted subject to policies and regulations of this program. Private and shared moorage on marine shorelines, other than constructed marinas or canals, may be permitted as a conditional use. Public and commercial moorage, including the expansion of existing piers, and floatplane moorage accessory to a permitted moorage may be permitted as a conditional use. Industrial and covered moorage are prohibited.~~

Comment [CES219]: Addressed by use table now.

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- ~~D. Shoreline Residential. Private and shared moorage are permitted subject to policies and regulations of this program. Public and commercial moorage, including expansion of existing piers, and covered moorage or floatplane moorage accessory to a permitted moorage may be permitted as a conditional use. Industrial moorage is prohibited.~~
- ~~E. Rural. Private and shared moorage are permitted subject to policies and regulations of this program. Public, industrial and commercial moorage, including expansion of existing piers, and floatplane moorage accessory to a permitted moorage may be permitted as a conditional use. Covered moorage is prohibited.~~
- ~~F. Resource. Private and shared moorage are permitted subject to policies and regulations of this program. Public, industrial and commercial moorage, including expansion of existing piers, and floatplane moorage accessory to a permitted moorage may be permitted as a conditional use. Covered moorage is prohibited.~~
- ~~G. Conservancy. Private and shared moorage on nonmarine shorelines are permitted subject to policies and regulations of this program. Private and shared moorage on marine shorelines, other than constructed marinas or canals, may be permitted as a conditional use. Public and commercial moorage, including the expansion of existing piers, and floatplane moorage accessory to a permitted moorage may be permitted as a conditional use. Industrial and covered moorages are prohibited.~~
- ~~H. Natural. Moorage is prohibited, except public access, interpretive or nature observation facilities that are compatible with the area's physical and visual character may be conditionally permitted subject to policies and regulations of this program. Covered and floatplane moorage are prohibited.~~
- ~~I. Aquatic. Moorage is permitted, subject to the use and development regulations of the abutting upland shoreline area designation. Unless authorized by WA DNR or its designees, extended moorage longer than 60 consecutive days in one location shall be considered an obstruction which interferes with the normal public use of the surface of the waters of the state, and is prohibited.~~

23.4100.140-160 Recreation.

Shoreline recreation shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.

A. Policies.

A. Shoreline recreational development should be given priority for shoreline location to the extent that the use facilitates the public's ability to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline. Where appropriate, such facilities should be dispersed along the shoreline in a manner that supports more frequent recreational access and aesthetic enjoyment of the shoreline for a substantial number of people.

B. Recreational developments should facilitate appropriate use of shoreline resources while conserving them. These resources include, but are not limited to: accretion shoreforms, wetlands, soils, ground water, surface water, native plant and animal life, and shore processes.

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- ~~C. Recreational development requiring extensive structures, utilities and roads and/or substantial modifications of topography or vegetation removal should not be located or expanded in areas where damage to persons, property, and/or shoreline functions and processes is likely to occur.~~
- ~~D. Recreational developments and plans should provide the regional population a varied and balanced choice of recreation experiences in appropriate locations. Public agencies and private developers should coordinate their plans and activities to provide a wide variety of recreational opportunities without needlessly duplicating facilities.~~
- ~~E. Trail links between shoreline parks and public access points should be encouraged for walking, horseback or bicycle riding and other non-motorized vehicle access where appropriate. The Whatcom County Comprehensive Park and Recreation Open Space Plan should be considered in design and approval of public trail systems.~~
- ~~F. Access to natural character recreational areas, including but not limited to beaches and fishing streams, should be a combination of linear shoreline trails or easements and small parking or access tracts to minimize user concentration on small portions of the shoreline.~~
- ~~G. Recreation facilities should incorporate public education regarding shoreline ecological functions and processes, the role of human actions on the environment and the importance of public involvement in shorelines management. Opportunities incorporating educational and interpretive information should be pursued in design and operation of recreation facilities and nature trails.~~
- ~~H. Reasonable physical or visual public access to shorelines should be provided and integrated with recreational developments in accordance with WCC 23.90.080.~~
- ~~I. Recreation development should be located only where utility and road capability is adequate, or may be provided without significant damage to shore features commensurate with the number and concentration of anticipated users.~~
- ~~J. Cooperative efforts among public and private persons toward the acquisition and/or development of suitable recreation sites or facilities should be explored to assure long-term availability of sufficient public sites to meet local recreation needs.~~
- ~~B. Regulations. Where significant adverse impacts are adequately mitigated, recreational development is a priority use for shoreline location, subject to the following:~~
- A. General.
1. Water-related and water-enjoyment uses ~~do shall~~ not displace water-dependent uses ~~and are consistent with existing water-related and water-enjoyment uses.~~
 2. Activities provided by recreational facilities must bear a substantial relationship to the shoreline, or provide physical or visual access to the shoreline. Facilities for water-dependent recreation such as fishing, clam digging, swimming, boating, and wading, and water-related recreation such as picnicking, hiking, and walking should be located near the shoreline, while non-water-related recreation facilities shall be located inland.
 3. Recreation areas or facilities ~~on the shoreline~~ shall provide physical or visual public access consistent with the criteria of WCC 23.30.06090.080 (Public Access).
 4. Recreational facilities with large grass areas, such as golf courses and playing fields, and facilities with extensive impervious surfaces shall incorporate means to prevent erosion, control the

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amount of runoff, and prevent harmful concentrations of chemicals and sediment from entering waterbodies in accordance with the ~~policies and~~ regulations of WCC 23.390.0340 (Water Quality and Quantity).

5. Recreational use of motor vehicles including unlicensed off-road vehicles is permitted only on roads or trails specifically designated for such use. Such use is prohibited on tidelands, backshore beaches, streams, or wetlands; except as necessary for public health and safety or maintenance.

6. Trails shall meet the requirements of WCC Chapter 16.16 (Critical Areas).

B. Regulations for Specific Shoreline Environment Designations.

1. In the Urban Conservancy shoreline environment, low intensity water-oriented recreational use and development is permitted subject to the following criteria:

a. Structures will not result in more than 10 percent building coverage or 4,000 square feet, whichever is greater, and total impervious surface will not exceed 20 percent, or 10,000 square feet, whichever is greater.

b. Alteration of topography shall be limited to the minimum necessary to accommodate allowed development, and generally less than 30 inches.

c. Use of areas or facilities will not result in use patterns that lead to degradation of shoreline ecological functions.

2. In the Resource shoreline environment, low intensity water-oriented recreational use and development is permitted; provided, that no designated agricultural or forest resource lands of long-term significance are displaced.

3. In the Conservancy shoreline environment, low intensity water-oriented recreational use and development is permitted subject to the following criteria:

a. Structures on sites of one acre or less will not result in more than 10 percent building coverage or 2,000 square feet, whichever is greater, and total impervious surface will not exceed 20 percent or 5,000 square feet, whichever is greater.

b. Structures on sites greater than one acre will not result in more than five percent building coverage or 2,000 square feet, whichever is greater, and total impervious surface will not exceed 10 percent or 10,000 square feet, whichever is greater.

c. Alteration of topography shall be limited to the minimum necessary to accommodate allowed development, and generally less than 30 inches.

d. Use of areas or facilities will not result in use patterns that lead to degradation of shoreline ecological functions.

4. In the Natural shoreline environment, low intensity water-oriented recreational use and development consisting of primitive trails or primitive campsites is permitted subject to the following criteria:

a. Essential minor structures such as trails, stairs, small picnic areas, primitive roads, viewpoints, restrooms, interpretive facilities, or development that will not adversely affect shoreline ecological functions and processes are permitted.

b. Any necessary landscaping shall use native or similar self-maintaining vegetation.

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c. Recreational development requiring extensive structures or substantial alterations to topography or native vegetation is prohibited.

5. In the Aquatic shoreline area environment, water-oriented recreational use and development is permitted, subject to the use and development regulations of the abutting upland shoreline area environment designation; provided, that underwater parks may be permitted as a shoreline conditional use.

Comment [AP220]: Carried over from removed 'Shoreline Area Regulations.'

A. Shoreline Area Regulations.

Comment [CES221]: Addressed in use table now.

1. ~~Urban. Water-oriented recreational use and development is permitted subject to policies and regulations of this program.~~
2. ~~Urban Resort. Water-oriented recreational use and development is permitted subject to policies and regulations of this program.~~
3. ~~Urban Conservancy. Low intensity water-oriented recreational use and development is permitted subject to policies and regulations of this program and the following criteria:~~
 - a. ~~Structures will not result in more than 10 percent building coverage or 4,000 square feet, whichever is greater, and total impervious surface will not exceed 20 percent, or 10,000 square feet, whichever is greater.~~
 - b. ~~Alteration of topography shall be limited to the minimum necessary to accommodate allowed development, and generally less than 30 inches.~~
 - c. ~~Use of areas or facilities will not result in use patterns that lead to degradation of shoreline ecological functions.~~
4. ~~Shoreline Residential. Water-oriented recreational use and development is permitted subject to policies and regulations of this program.~~
5. ~~Rural. Water-oriented recreational use and development is permitted subject to policies and regulations of this program.~~
6. ~~Resource. Low intensity water-oriented recreational use and development is permitted subject to policies and regulations of this program; provided, that no designated agricultural or forest resource lands of long term significance are displaced.~~
7. ~~Conservancy. Low intensity water-oriented recreational use and development is permitted subject to policies and regulations of this program and the following criteria:~~
 - a. ~~Structures on sites of one acre or less will not result in more than 10 percent building coverage or 2,000 square feet, whichever is greater, and total impervious surface will not exceed 20 percent or 5,000 square feet, whichever is greater.~~
 - b. ~~Structures on sites greater than one acre will not result in more than five percent building coverage or 2,000 square feet, whichever is greater, and total impervious surface will not exceed 10 percent or 10,000 square feet, whichever is greater.~~
 - c. ~~Alteration of topography shall be limited to the minimum necessary to accommodate allowed development, and generally less than 30 inches.~~
 - d. ~~Use of areas or facilities will not result in use patterns that lead to degradation of shoreline ecological functions.~~

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8. ~~Natural. Low intensity water oriented recreational use and development consisting of primitive trails or primitive campsites is permitted subject to policies and regulations of this program and the following criteria:~~

- a. ~~Essential minor structures such as trails, stairs, small picnic areas, primitive roads, viewpoints, restrooms, interpretive facilities, or development that will not adversely affect shoreline ecological functions and processes are permitted, subject to policies and regulations of this program.~~
- b. ~~Any necessary landscaping shall use native or similar self-maintaining vegetation.~~
- c. ~~Recreational development requiring extensive structures or substantial alterations to topography or native vegetation is prohibited.~~

9. ~~Aquatic. Water oriented recreational use and development is permitted, subject to the use and development regulations of the abutting upland shoreline area designation; provided, that underwater parks may be permitted as a conditional use.~~

23.4100.150-170 Residential.

~~Residential development in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC. This section applies to rResidential development, uses, and activities. as defined in WCC Chapter 23.110 includes multifamily development and the The creation of new residential lots through land division is regulated pursuant to WCC 23.40.130 (Land Division).~~

~~B. Policies.~~

- A. ~~Single family residences are designated in Chapter 90.58 RCW as a priority use in those limited instances when authorization is given for alterations of the natural condition of shorelines of the state.~~
- B. ~~New residential development is encouraged to cluster dwelling units together to reduce physical and visual impacts on shorelines and to reduce utility and road costs. Planned unit developments that include common open space and recreation facilities, or a variety of dwelling sizes and types, are encouraged at suitable locations as a preferable alternative to extensive single lot subdivisions on shorelines. Planned unit developments (Chapter 20.85 WCC) may also include a limited number of neighborhood commercial business uses where consistent with the applicable zoning regulations.~~
- C. ~~Allowable density of new residential development should comply with applicable comprehensive plan goals and policies, zoning restrictions, and shoreline area designation standards. The density per acre of development should be appropriate to local natural and cultural features.~~
- D. ~~Structures or development for uses accessory to residential use should preserve shoreline open space, be visually and physically compatible with adjacent cultural and shoreline features, be reasonable in size and purpose, and result in no net loss of shoreline ecological functions and processes.~~
- E. ~~Buildings greater than 35 feet above average grade level that will obstruct the views of a substantial number of residences on areas adjoining such shorelines are limited by the Act (RCW 90.58.320) to those cases where this program does not prohibit such development and then only when overriding considerations of the public interest will be served. This program provides opportunities for~~

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buildings greater than 35 feet in height in limited areas where consistent with development objectives and the goals and policies of this program.

~~F. New residential development should be planned and built in accordance with the policies and regulations in WCC 23.90.030 and to minimize the need for shoreline stabilization and flood hazard reduction measures.~~

~~G. Measures to conserve native vegetation along shorelines should be required for all residential development. Vegetation conservation may include avoidance or minimization of clearing or grading, restoration of areas of native vegetation, and/or control of invasive or nonnative vegetation.~~

~~H. Whenever possible, nonregulatory methods to protect, enhance, and restore shoreline ecological functions and other shoreline resources should be encouraged for residential development. Such methods may include resource management planning, low impact development techniques, voluntary protection and enhancement projects, education, or incentive programs.~~

~~I. New multiunit residential development, including subdivision of land for more than four parcels, should provide substantial shore space for development residents and the public, unless public access is infeasible due to incompatible uses, safety, impacts to shoreline ecology or legal limitations.~~

~~J. Development should provide open space corridors between structures, and along site boundaries, so as to provide space for outdoor recreation, preserve views, and minimize use conflicts.~~

~~K. Recreation oriented residential development in the shoreline should be located only where substantial recreation opportunities are provided on site, and where nearby property owners and other appropriate uses will not be adversely affected.~~

~~C. Regulations.~~

~~A. General.~~

~~1. New over-water residence structures, including floating homes, are prohibited.~~

~~1-2. New residential development may not be approved in cases when it can be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within a channel migration zone or floodway during the life of the development or use.~~

~~3. New residential development shall assure through a geotechnical analysis that the development will not require shoreline stabilization for the life of structure (100 years). Prior to approval, geotechnical analysis of the site and shoreline characteristics shall demonstrate that shoreline stabilization is unlikely to be necessary; setbacks from steep slopes, bluffs, landslide hazard areas, seismic hazard areas, riparian and marine shoreline erosion areas shall be sufficient to protect structures during the life of the structure (100 years); and impacts to adjacent, downslope or down-current properties are not likely to occur. The greater setback resulting from this regulation or WCC 23.90.130 23.40.020 (Shoreline Bulk Provisions) shall apply.~~

~~2. Clustering and low impact development techniques may be required where appropriate to minimize physical and visual impacts on shorelines in accordance with policies and regulations of WCC 23.90.090.~~

Comment [CES222]: Moved to land division

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4. Residential structures, accessory uses, and related facilities shall be designed and located so as to minimize view obstructions to and from shorelines and waterbodies.

5. Utilities shall be located within roadway and driveway corridors and rights-of-way wherever feasible.

B. Standards for Single-Family Residential Use on Constrained Lots.

1. Legally existing lots with a depth (the distance from the ordinary high water mark to the inside edge of the frontage setback) that would not allow for compliance with the reduced standard buffer may be allowed without a shoreline variance when the following criteria are met:

2. The lot is vacant or existing structures are removed; provided an existing primary single family residential structure may be enlarged, consistent to WCC 23.50.020, to the maximum building area allowed in (3) below.

3. The building area lying landward of the shoreline buffer and interior to required side yard setbacks shall not exceed 2,500 square feet or less. The building area means the proposed residence, normal appurtenances (except drainfields), and any proposed residential accessory structures the entire area that will be disturbed to construct the home, sidewalks and similar structures (except the single path allowed for shoreline access), parking areas, normal appurtenances (except drainfields). Additionally, and another 500 square feet of low-impact development (LID) landscaping, including any lawn, turf, ornamental vegetation, or gardens is allowed, provided that it is set back as far as feasible from the shoreline.

4. In no case shall the proposed residence be located waterward of the common-line setback as determined in applicable sections of Consideration shall be given to view impacts in accordance with WCC 23.40.020(D)(2) (Common-Line Setback).

5. The lot is not subject to landslide hazard areas, alluvial fan hazard areas, or riverine and coastal erosion hazard areas or associated buffers as defined in (see WCC 16.16.310);

6. The nonconforming lot was created prior to the effective date of this program (August 8, 2008);

7. Appropriate measures are taken to mitigate all adverse impacts, including but not limited to locating the building area and landscaping allowance residence in the least environmentally damaging location relative to the shoreline and any critical areas and their buffers; and provided, that;

8. All administrative reductions to side yard and/or frontage setbacks are pursued. Such reductions may be approved administratively without a zoning variance, when doing so will not create a hazardous condition or a condition that is inconsistent with this program and WCC Title 20.

9. There is no opportunity to consolidate lots under common ownership that will alleviate the nonconformity;

10. The shoreline jurisdiction shoreline area outside of the approved development is retained if fully functional, and/or enhanced with native trees, shrubs and groundcovers through development of a mitigation plan, including monitoring and maintenance contingencies per WCC 16.16.260(G) optimized to provide the maximum shoreline ecological functions and ecosystem wide functions;

11. Development may not take place waterward of the ordinary high water mark; and

Comment [CES223]: Moved from Site Planning section. Required to meet WAC 173-26-241(3)(l).

Comment [CES224]: Moved from old nonconforming section.

Comment [DOE-Req225]: Required Change – It is unclear what the term “optimized” means but this change restores the exiting requirement that the remaining buffer areas are enhanced with trees, shrubs and groundcovers and maintained in perpetuity.

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12. ~~Accessory utilities~~ Facilities such as a conventional drainfield system may be allowed within critical areas or their buffers, subject to specific criteria in Chapter 16.16 WCC.

C. Additional Standards for Multifamily Residential Development.

1. ~~Due to the potential for adverse impact upon adjacent uses and the community from such high-rise and multiunit buildings that exceed 35 feet in height, the County must find proposals for such buildings to be consistent with this program and the Act, particularly as related to RCW 90.58.320, and the following factors:~~

2.1. ~~Open space areas and setbacks shall be required along shorelines and between buildings wherever feasible. These areas should be large enough so that local views are not extensively blocked, and building residents have privacy and ample space for outdoor recreation and circulation. The amount of open space shall increase proportionately as density and/or height increase. In general, a view corridor must be maintained across 30 percent of the average parcel width with additional width provided for the percentage increase above 35 feet to a maximum of 50 percent of the lot width. The increased area within a view corridor due to increased height must be devoted to landscaping or other open space.~~

3. ~~Urban services, including sanitary sewers, public water supply, fire protection, stormwater drainage, and police protection shall be provided at adequate levels to protect the public health, safety, and welfare.~~

4.2. ~~Circulation, parking areas, and outdoor storage or loading areas shall be adequate in size and designed so that the public safety and local aesthetic values are not diminished. Such areas shall be screened where appropriate from open space areas by landscaping, fences or other similar structures, or grade separation.~~

3. ~~New multiunit m~~ Multifamily development with more than four units and, including subdivision of land for more than four parcels, shall incorporate public access to publicly owned shorelines or public waterbodies waters of the state as provided for in WCC 23.390.0780 (Public Access) unless the site is designated in a shoreline public access plan for a greater component of public access or public access is demonstrated to be infeasible or inappropriate. The amount and configuration of public access shall depend on the proposed use(s) and the following criteria:

- a. Multifamily development that have views of water areas shall provide a public pedestrian viewing area.
- b. Multifamily development adjacent to waters of the state shall provide access to a point abutting the water that will provide visual access, and shall provide physical access to public waterways, public marine waters, and public tidelands that are physically accessible at low tide or low water.
- c. Multifamily development subject to requirements for dedication of land to provide open space or mitigate recreation demands of the development shall dedicate such land on or adjacent to public waterways or marine shorelines, as applicable, unless the ecological sensitivity of such land precludes public access. Portions of the area dedicated may be fenced or otherwise restricted to limit public access to ecologically sensitive areas.

Comment [CES226]: Already addressed by 23.40.020(C)(2)

Comment [CES227]: Covered by Title 20.

Comment [DOE-Req228]: Required Change – This change restores the existing language that requires consideration for all multifamily development. There is nothing in the public access standards of the SMP Guidelines that exempt multifamily developments under a certain unit size [WAC 173-26-221(4)]

Comment [CES229]: Mimicking the public access requirements for land divisions.

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5.4. Recreational needs of building residents shall be provided through on-site recreation facilities and access to shorelines. The variety and number of on-site recreation facilities should increase proportionately as density increases. ~~Where appropriate, public access should be provided and integrated with the development.~~

A. ~~Location and Design.~~

1. ~~As mandated by the Act (RCW 90.58.320), no shoreline permit may be issued for any new or expanded building or structure of more than 35 feet above average grade level on shorelines that will obstruct the view of a substantial number of residences on areas adjoining such shorelines, except where this program does not prohibit such development and only when overriding considerations of the public interest will be served.~~
2. ~~Minimum required setbacks from shorelines and side property lines, maximum height limits and open space requirements are contained in WCC 23.90.130, Shoreline bulk provisions – Buffers, setbacks, height, open space and impervious surface coverage.~~

B.D. Additional Standards for Accessory Uses and Development.

1. ~~Accessory development common to residences includes, but is not limited to, recreational moorage (mooring buoys, docks and floats), garages and shops, parking areas, water craft storage, shoreline stabilization, fences, cabanas, tennis courts, swimming pools, saunas, antennas, decks, walkways and landscaping.~~
2. Shoreline permits shall be required for accessory development that does not meet the intent and definition of an appurtenance as defined in WCC 23.110.010(16).
2. ~~Such Non-water dependent accessory uses development shall not be located~~ are prohibited in required shoreline setbacks; except, as provided in WCC Chapter 16.16 (Critical Areas).
3. ~~Non-water dependent development uses and shall be prohibited over the water, unless clearly water dependent such as moorage (mooring buoys, docks and floats) for recreational or personal use.~~
4. ~~For projects involving two or more dwelling units, only shared moorage consisting of mooring buoys, or shared moorage and/or floats, is permitted. Individual private docks are prohibited. Shared moorage may be approved if it meets all requirements in WCC 23.100.090.~~
5. ~~Private recreational docks and floats for individual lots are permitted in existing subdivisions which were approved on or before January 28, 1993, only where shared moorage has not already been developed and subject to the policies and regulations in WCC 23.100.090. For docks and piers, see WCC 23.40.150 (Moorage Structures).~~

E. Regulations for Specific Shoreline Environment Designations.

1. In the Natural shoreline environment, residential development is prohibited, except that one single-family residence per legal lot may be permitted as a shoreline conditional use where there is no feasible location outside of the shoreline.

D. ~~Shoreline Area Regulations.~~

- A. ~~Urban. Residential development is permitted subject to policies and regulations of this program.~~

Comment [CES230]: Deleted throughout, as every use has to meet the general setbacks.

Comment [DN231]: Deleted, as this is a definition and is covered there.

Comment [AP232]: Moved from 'Shoreline Area Regulations.'

Comment [CES233]: Addressed in use table now.

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- ~~B. Urban Resort. Residential development is permitted subject to policies and regulations of this program.~~
- ~~C. Urban Conservancy. Single family and duplex development is permitted subject to policies and regulations of this program. Subdivision of property shall not be allowed in a configuration that will require significant vegetation removal or shoreline modification or result in a net loss of shoreline ecological functions and processes at the time of development of the subdivision and/or use of each new parcel. All other residential development may be permitted as a conditional use.~~
- ~~D. Shoreline Residential. Residential development is permitted subject to policies and regulations of this program.~~
- ~~E. Rural. Residential development is permitted subject to policies and regulations of this program.~~
- ~~F. Resource. Residential development limited to farm related residences or one residence and one accessory dwelling unit is permitted per existing parcel where there is no feasible location outside of the shoreline.~~
- ~~G. Conservancy. Single family and duplex development is permitted subject to policies and regulations of this program. Subdivision of property shall not be allowed in a configuration that will require significant vegetation removal or shoreline modification or result in a net loss of shoreline ecological functions and processes at the time of development of the subdivision and/or use of each new parcel. All other residential development may be permitted as a conditional use.~~
- ~~H. Natural. Residential development is prohibited, except that one single family residence per existing lot of record may be permitted as a conditional use where there is no feasible location outside of the shoreline.~~
- ~~I. Aquatic. Residential development is prohibited.~~

23.4100.160-180 Restoration and Enhancement.

- ~~c. Restoration in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.~~

A. Policies.

- ~~1. This program recognizes the importance of restoration of shoreline ecological functions and processes and encourages cooperative restoration efforts and programs between local, state, and federal public agencies, tribes, nonprofit organizations, and landowners to address shorelines with impaired ecological functions and/or processes.~~
- ~~2. Restoration actions should restore shoreline ecological functions and processes as well as shoreline features and should be targeted towards meeting the needs of sensitive and/or locally important plant, fish and wildlife species as well as the biological recovery goals for early Chinook and bull trout populations, and other salmonid species and populations.~~
- ~~3. Restoration should be integrated with other parallel natural resource management efforts such as the WRIA 1 Salmonid Recovery Plan and the WRIA 1 Watershed Management Plan.~~
- ~~4. Priority should be given to restoration actions that:~~

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- ~~2. Create dynamic and sustainable ecosystems.~~
- ~~3. Restore connectivity between stream/river channels, floodplains and hyporheic zones.~~
- ~~4. Restore natural channel forming geomorphologic processes.~~
- ~~5. Mitigate peak flows and associated impacts caused by high stormwater runoff volume.~~
- ~~6. Reduce sediment input to streams and rivers and associated impacts.~~
- ~~7. Improve water quality.~~
- ~~8. Restore native vegetation and natural hydrologic functions of degraded and former wetlands.~~
- ~~9. Replant native vegetation in riparian areas to restore functions.~~
- ~~10. Restore nearshore ecosystem processes, such as sediment transport and delivery and tidal currents that create and sustain habitat.~~
- ~~11. Restore pocket estuaries that support salmon life histories, including feeding and growth, refuge, osmoregulation, and migration.~~
- ~~12. Address contamination along industrial shoreline regions.~~

A. ~~Regulations. General.~~

1. Restoration of ecological functions and processes shall be allowed on all shorelines and shall be located, designed, and implemented in accordance with applicable policies and regulations of this program.
2. Restoration shall be carried out in accordance with an approved shoreline restoration plan, County Resolution 2007-011, and in accordance with the policies and regulations of this program.
3. The County may grant relief from shoreline master program development standards and use regulations resulting from shoreline restoration projects within urban growth areas consistent with criteria and procedures in WAC 173-27-215.

Comment [DN234]: Moved from General Regulations section (WCC 23.30)

1. ~~Shoreline Area Regulations.~~

- ~~a. Urban. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~b. Urban Resort. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~c. Urban Conservancy. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~d. Shoreline Residential. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~e. Rural. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~f. Resource. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~g. Conservancy. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~h. Natural. Restoration activities are permitted subject to policies and regulations of this program.~~
- ~~i. Aquatic. Restoration activities are permitted subject to policies and regulations of this program.~~

Comment [AP235]: Added per Periodic Review Checklist, Item 2009.a, and Scoping Document, Item #2f.

Comment [CES236]: Addressed in use table now.

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~~23.4100.170-190~~ 23.4100.170-190 Shoreline Stabilization.

A. General.

1. All development shall be located and designed to avoid the need for future shoreline stabilization to the extent feasible.
2. Shoreline stabilization measures shall comply with the principals and standards of WAC 173-26-231(3)(a) (Shoreline Stabilization).
3. Shoreline stabilization structures shall not result in a net loss of shoreline ecological functions. If shoreline stabilization is necessary pursuant to a geotechnical analysis, the method, either hard or soft, may be required to provide mitigation.
4. When authorized consistent with these provisions, shoreline stabilization measures shall be designed in accordance with WDFW's Integrated Streambank Protection Guidelines or WDFW's Marine Shoreline Design Guidelines, whichever is relevant to the particular environment.
- 4.5. Alternatives for shoreline stabilization shall be based on the following order of preference:
 - a. No action, increase building setbacks, relocate structures;
 - a-b. Nonstructural shoreline stabilization, including building setbacks, relocation of structures to be protected, and groundwater management;
 - b-c. Other soft shoreline stabilization treatment;
 - d. Hybrid shoreline stabilization;
 - e. Hard shoreline stabilization.
6. Soft shoreline stabilization treatment shall be used unless demonstrated through a geotechnical analysis not to be sufficient to protect primary structures, dwellings, or businesses.
7. Hard shoreline stabilization measures shall not be allowed except when necessity is demonstrated in the following manner:
 - a. To protect legally existing primary structures:
 - i. New or enlarged structural shoreline stabilization measures for the existing primary structure, including residences and their primary appurtenant structures or uses, shall not be allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the lawfully established, primary structure will be damaged within three years from shoreline erosion caused by tidal actions, currents, or waves. Where a geotechnical analysis confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three years, the analysis may still be used to justify more immediate authorization for shoreline stabilization using soft treatment.
 - ii. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need.
 - b. In support of water-dependent development when all of the following apply:
 - i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage;
 - ii. Nonstructural shoreline stabilization, planting vegetation, or installing on-site drainage improvements are not feasible or not sufficient;

Comment [CES237]: Added per DOE recommendation.

Comment [CES238]: Added per DOE recommendation.

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- 1 iii. The need to protect primary structures from damage due to erosion is demonstrated
- 2 through a geotechnical report;
- 3 c. In support of non-water-dependent development, including single-family residences, when
- 4 all of the following apply:
- 5 i. The erosion is not being caused by upland conditions, such as the loss of vegetation and
- 6 drainage;
- 7 ii. Nonstructural measures, such as placing the development further from the shoreline,
- 8 planting vegetation, or installing on-site drainage improvements, are not feasible or not
- 9 sufficient;
- 10 iii. The need to protect the primary structures from damage due to erosion is
- 11 demonstrated through a geotechnical report. The damage must be caused by natural
- 12 processes, such as tidal action, currents and waves;
- 13 d. To protect projects for the restoration of ecological functions or hazardous substance
- 14 remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures,
- 15 planting vegetation, or installing on-site drainage improvements are not feasible or
- 16 sufficient.
- 17 8. When hard shoreline stabilization measures are demonstrated to be necessary, they must:
- 18 a. Limit the size of stabilization measures to the minimum necessary; and
- 19 b. Assure no net loss of shoreline ecological functions; and
- 20 9. Publicly financed or subsidized shoreline erosion control measures shall provide appropriate
- 21 public access to the shoreline except where such access is determined to be infeasible because
- 22 of incompatible uses, safety, security, or harm to ecological functions.
- 23 10. Bioengineering approaches or other soft treatment shoreline stabilization that provide
- 24 restoration of shoreline ecological functions may be permitted waterward of the OHWM.
- 25 11. Shoreline stabilization on streams should be located and designed to fit the physical character
- 26 and hydraulic energy potential of a specific shoreline reach, which may differ substantially from
- 27 adjacent reaches. Hard shoreline stabilization methods are prohibited in jurisdictional shoreline
- 28 streams on estuarine shores, in wetlands, and in salmon spawning areas, except for the purpose
- 29 of fish or wildlife habitat enhancement or restoration.
- 30 12. Revetments are prohibited, except for use in water-dependent and public infrastructure
- 31 projects, which may be permitted as conditional use.
- 32 13. Gabions are prohibited along marine shorelines, but may be permitted as a conditional use
- 33 along freshwater shorelines.
- 34 14. Shore stabilization should not be developed for the purpose of filling shorelines. Shoreline
- 35 stabilization measures shall not be for the purpose of creating dry land, leveling or extending
- 36 property, creating or preserving residential lawns, yards, or landscaping, and shall not be
- 37 allowed except when otherwise allowed in this program.
- 38 15. Minimize disturbance pertaining to beach access by avoiding trails that may be subject to loss or
- 39 damage by erosion require hard stabilization.

Comment [CES239]: Amended to comply with
WAC 173-26-231(3)(a)(iii)(E).

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- 1 ~~Bluff stabilization walls shall be prohibited unless proven necessary through a geotechnical~~
2 ~~report.~~
- 3 16. Placement of shoreline stabilization methods shall follow the natural contour of the existing
4 shoreline, be parallel to and at or above the OHWM.
- 5 17. When determined to be necessary pursuant to this section ~~Bulkheads and other similar hard~~
6 ~~structures are shoreline stabilization prohibited on marine feeder bluffs or on marine or lake~~
7 ~~accretion shoreforms, shall require a except as a conditional use permit where exposure to~~
8 ~~storm waves and driftwood battering seriously threaten other similar existing structures and no~~
9 ~~feasible alternatives exist. Such bulkheads shall be set back a minimum of 20 feet landward from~~
10 ~~the OHWM.~~
- 11 a. Shoreline stabilization on marine feeder bluffs may require additional mitigation measures,
12 including those necessary to offset the loss of sediment supply.
- 13 b. Shoreline stabilization on accretion shoreforms shall be set back a minimum of 20 feet
14 landward from the OHWM.
- 15 18. Shoreline stabilization must be designed by a professional engineer licensed in the state of
16 Washington with demonstrated experience in hydraulic activities of shorelines. Alternatively,
17 soft treatment shoreline stabilization may be designed by a habitat biologist or a professional
18 with demonstrated expertise in designing soft treatment shoreline stabilization.
- 19 19. Depending on the degree of hard or soft elements to the project, the County, WDFW, and/or
20 U.S. Army Corps of Engineers may require varying degrees of mitigation or other permit
21 conditions.
- 22 20. Shoreline stabilization, as applied in this section, is generally distinguished from shoreline
23 restoration activities. However, specific shoreline stabilization elements of restoration activities
24 shall be guided by this section.
- 25 21. Use of shoreline armoring to protect a lot where no primary structure presently exists shall be
26 prohibited.
- 27 22. Shoreline stabilization structures shall not be constructed with waste materials such as
28 demolition debris, derelict vessels, tires, concrete or any other materials which might have
29 adverse toxic or visual impacts on shoreline areas.
- 30 B. Additional Standards for Replacement or Repair of Existing Shoreline Stabilization.
- 31 1. ~~Damaged structural stabilization may be repaired up to 50% of the linear length within a 5-year~~
32 ~~period. Repair area that exceeds 50% shall be considered a replacement. Stabilization repair~~
33 ~~applications shall consider cumulative approvals of each successive application within a five-year~~
34 ~~period.~~
- 35 2. Any replacement of, additions to, or increases in the dimensions of existing shoreline
36 stabilization measures shall be considered as a new structure.
- 37 3. An existing stabilization structure may be replaced with a similar structure if there is a
38 demonstrated need, through a geotechnical report, to protect principal uses or structures from
39 erosion caused by currents, tidal action or waves.

Comment [CES240]: Deleted since all stabilization requires a geotech report.

Comment [CES241]: Moved from below and modified based on discussion w/ DOE.

Comment [CES242]: DOE recommended we have a threshold to distinguish between repair & replacement. How much has to be left to be considered replair? Language from SMP Handbook chapter 15, pg. 35-36.

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4. If the OHWM has been re-established, the replacement structure must be located at or near the new OHWM.

5. Alternative or soft treatment stabilization shall be considered prior to in-kind replacement through an alternatives analysis.

6. The replacement structure shall:

a. Be designed, located, sized and constructed to assure no net loss of ecological functions.

b. Perform the same stabilization function of the existing structure and not require additions to or increases in size.

c. Not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.

7. When possible or as an element of mitigation sequencing, failing, harmful, unnecessary, or ineffective structures should be removed, and shoreline ecological functions and processes should be restored using nonstructural or soft and/or long-term stabilization measures.

C. Supplemental Application Materials Requirements.

2.1. Geotechnical reports required pursuant to this section shall address the need for shoreline stabilization and shall include the following:

a. A scaled site plan showing:

- i. The location of existing and proposed shore stabilization, structures, fill, and vegetation, with dimensions indicating distances to the OHWM; and
- ii. Existing site topography, preferably with two-foot contours.

b. A description of the processes affecting the site, and surrounding areas that influence or could be influenced by the site, including areas in which stream processes, lake or marine geomorphic processes affect the site, including, but not limited to:

- i. Soil erosion, deposition, or accretion;
- ii. Evidence of past or potential channel migration;
- iii. Evidence of past or potential erosion due to tidal action and/or waves;
- iv. Littoral drift; and
- v. An estimate of shoreline erosion rates.

c. A description and analysis of the urgency and risk associated with the specific site characteristics, an alternative analysis addressing the order of preference as specified in subsection (A)(4), and demonstrated need as specified in subsection (A)(7).

d. A discussion and analysis demonstrating conformance with the standards enumerated in WCC Chapter 16.16 (Critical Areas).

D. Regulations for Specific Shoreline Environment Designations.

1. In the Urban Conservancy and Conservancy shoreline environments, breakwaters and jetties may be permitted as a shoreline conditional use if accessory to a water-dependent use and littoral sediment transport is not significantly disrupted.

Comment [CES243]: Added at DOE's recommendation.

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2. In the Natural shoreline area environment, shoreline stabilization is prohibited; except that using bioengineering approaches may be permitted when necessary to restore an eroding accretion shoreform or to retard erosion elsewhere.
3. In the Aquatic shoreline environment:
 - a. Bioengineering approaches are permitted on tidelands and shorelands when necessary to restore an eroding accretion shoreform or to retard erosion elsewhere.
 - b. Drift sills, breakwaters, and jetties may be permitted as a shoreline conditional use if such development is permitted in the abutting upland shoreline environment designation.
 - c. Bulkheads or revetments are prohibited except for an approved water-dependent development.

Comment [AP244]: Moved from 'Shoreline Area Regulations.'

Shore stabilization in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.

A. Policies.

1. ~~Alternatives to structures for shore protection should be used whenever possible. Such alternatives may include no action (allow the shoreline to retreat naturally), increased building setbacks, building relocation, drainage controls, and bioengineering, including vegetative stabilization, and beach nourishment.~~
2. ~~New or expanded structural shore stabilization for new primary structures should be avoided. Instead, structures should be located and designed to avoid the need for future shoreline stabilization where feasible. Land subdivisions should be designed to assure that future development of the created lots will not require structural shore stabilization for reasonable development to occur.~~
3. ~~New or expanded structural shore stabilization should only be permitted where demonstrated to be necessary to protect an existing primary structure that is in danger of loss or substantial damage, and where mitigation of impacts would not cause a net loss of shoreline ecological functions and processes.~~
4. ~~New or expanded structural shore stabilization for enhancement, restoration, or hazardous substance remediation projects should only be allowed when nonstructural measures, vegetation planting, or on-site drainage improvements would be insufficient to achieve enhancement, restoration or remediation objectives.~~
5. ~~Shore stabilization on streams should be located and designed to fit the physical character and hydraulic energy potential of a specific shoreline reach, which may differ substantially from adjacent reaches.~~
6. ~~Shore stabilization should not be permitted to unnecessarily interfere with public access to public shorelines, nor with other appropriate shoreline uses including, but not limited to, navigation, seafood harvest, or private recreation.~~
7. ~~Provisions for multiple use, restoration, and/or public shore access should be incorporated into the location, design and maintenance of shore stabilization for public or quasi-public developments~~

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- 1 whenever safely compatible with the primary purpose. Shore stabilization on publicly owned
2 shorelines should not be allowed to decrease long-term public use of the shoreline.
- 3 ~~8. Shore stabilization should be developed in a coordinated manner among affected property owners~~
4 ~~and public agencies for a whole drift sector (net shore drift cell) or reach where feasible, particularly~~
5 ~~those that cross jurisdictional boundaries, to address ecological and geohydraulic processes,~~
6 ~~sediment conveyance and beach management issues. Where beach erosion threatens existing~~
7 ~~development, a comprehensive program for shoreline management should be established.~~
- 8 ~~9. In addition to conformance with the regulations in this section, nonregulatory methods to protect,~~
9 ~~enhance, and restore shoreline ecological functions and other shoreline resources should be~~
10 ~~encouraged for shore stabilization. Nonregulatory methods may include public facility and resource~~
11 ~~planning, technical assistance, education, voluntary enhancement and restoration projects, or other~~
12 ~~incentive programs.~~
- 13 ~~10. Shore stabilization should be located, designed, and maintained to protect and maintain shoreline~~
14 ~~ecological functions, ongoing shore processes, and the integrity of shore features. Ongoing stream,~~
15 ~~lake or marine processes and the probable effects of proposed shore stabilization on other~~
16 ~~properties and shore features should be considered. Shore stabilization should not be developed for~~
17 ~~the purpose of filling shorelines.~~
- 18 ~~11. Failing, harmful, unnecessary, or ineffective structures should be removed, and shoreline ecological~~
19 ~~functions and processes should be restored using nonstructural methods or less harmful long-term~~
20 ~~stabilization measures.~~
- 21 ~~12. Structural shoreline stabilization measures should only be used when more natural, flexible,~~
22 ~~nonstructural methods such as vegetative stabilization, beach nourishment and bioengineering have~~
23 ~~been determined infeasible. Alternatives for shoreline stabilization should be based on the following~~
24 ~~hierarchy of preference:~~
- 25 ~~a. No action (allow the shoreline to retreat naturally), increase building setbacks, and relocate~~
26 ~~structures.~~
- 27 ~~b. Flexible defense works constructed of natural materials including soft shore protection,~~
28 ~~bioengineering, including beach nourishment, protective berms, or vegetative stabilization.~~
- 29 ~~c. Rigid works constructed of artificial materials such as riprap or concrete.~~
- 30 ~~Materials used for construction of shoreline stabilization should be selected for long-term durability,~~
31 ~~ease of maintenance, compatibility with local shore features, including aesthetic values and~~
32 ~~flexibility for future uses.~~
- 33 ~~13. Larger works such as jetties, breakwaters, weirs or groin systems should be permitted only for~~
34 ~~water dependent uses when the benefits to the region outweigh resource losses from such works,~~
35 ~~and only where mitigated to provide no net loss of shoreline ecological functions and processes.~~
- 36 ~~14. Alternative structures, including floating, portable or submerged breakwater structures, or several~~
37 ~~smaller discontinuous structures, should be considered where physical conditions make such~~
38 ~~alternatives with less impact feasible.~~
- 39 ~~B. Regulations.~~
- 40 ~~1. Allowed Use.~~

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- a. ~~New or expanded structural shore stabilization for existing primary structures, including roads, railroads, public facilities, etc., is prohibited unless there is conclusive evidence documented by a geotechnical analysis that there is a significant possibility that the structure will be damaged within three years as a result of shoreline erosion caused by stream processes, tidal action or waves, and only when significant adverse impacts are mitigated to ensure no net loss of shoreline ecological functions and/or processes. Where a geotechnical analysis confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three years, the analysis may still be used to justify more immediate authorization for shoreline stabilization using bioengineering approaches.~~
- b. ~~New shore stabilization for new development is prohibited unless it can be demonstrated that the proposed use cannot be developed without shore protection, and a geotechnical analysis documents that alternative solutions are not feasible or do not provide sufficient protection. The need for shore stabilization shall be considered in the determination of whether to approve new water dependent uses. Proposed designs for new or expanded shore stabilization shall be designed in accordance with applicable Department of Ecology and Department of Fish and Wildlife guidelines and certified by a qualified professional.~~
- c. ~~Shoreline stabilization is prohibited for new non-water oriented development; provided, that such stabilization may be approved as a conditional use where a geotechnical analysis demonstrates that shore stabilization is necessary to facilitate reasonable use of a property and documents that alternative solutions, including location outside of the shoreline, are not feasible or do not provide sufficient protection, and where ongoing monitoring, maintenance and mitigation for impacts to shoreline ecological functions and processes are provided.~~
- d. ~~Where shore stabilization is allowed, it shall consist of "soft," flexible, and/or natural materials or other bioengineered approaches unless a geotechnical analysis demonstrates that such measures are infeasible.~~
- e. ~~Replacement of an existing shore stabilization structure with a similar structure is permitted if there is a demonstrated need to protect primary uses, structures or public facilities including roads, bridges, railways, and utility systems from erosion caused by stream undercutting or tidal action; provided, that the existing shore stabilization structure is removed from the shoreline as part of the replacement activity. A geotechnical analysis may be required to document that alternative solutions such as those listed in subsections (A)(12)(a) and (b) of this section are not feasible or do not provide sufficient protection. Existing shoreline stabilization structures that are being replaced shall be removed from the shoreline unless removal of such structures will cause significant damage to shoreline ecological functions or processes. Replacement walls, bulkheads or revetments shall not encroach waterward of the ordinary high water mark or the existing shore defense structure unless the primary use being protected is a residence that was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.~~

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- f. Groins are prohibited except as a component of a professionally designed community or public beach management program that encompasses an entire drift sector or reach for which alternatives are infeasible, or where installed to protect or restore shoreline ecological functions or processes.
 - g. Jetties and breakwaters are prohibited except as an integral component of a professionally designed harbor, marina, or port. Where permitted, floating, portable or submerged breakwater structures, or smaller discontinuous structures, are preferred where physical conditions make such alternatives with less impact feasible. Defense works that substantially reduce or block littoral drift and cause erosion of downdrift shores, shall not be allowed unless an adequate long-term professionally engineered beach nourishment program is established and maintained.
 - h. New or expanded shore stabilization may be permitted to protect projects with the primary purpose of enhancing or restoring ecological functions, or projects for hazardous substance remediation pursuant to Chapter 70.105D RCW when nonstructural approaches, such as vegetation planting, and/or on-site drainage improvements are not feasible or do not provide sufficient protection.
 - i. Proposed designs for new or expanded shore stabilization shall be designed and certified by a qualified professional.
 - j. No motor vehicles, appliances, other similar structures nor parts thereof, nor structure demolition debris, nor any other solid waste shall be used for shore stabilization.
 - k. The size of shore stabilization measures shall be limited to the minimum necessary to provide protection for the primary structure or use it is intended to protect.
2. Marine Shorelines and Lakes. In those limited cases where a proposed bulkhead meets the criteria in this section for a shoreline permit or the exemption criteria under WCC 23.60.022, and to assure that such bulkheads will be consistent with the provisions of this program, the administrator shall review the proposed design as it relates to local physical conditions and issue written findings that the location and design meet all criteria of this program, subject to the following:
- a. ~~Bulkheads and other similar hard structures are prohibited on marine or lake accretion shoreforms, except as a conditional use where exposure to storm waves and driftwood battering seriously threaten other similar existing structures and no feasible alternatives exist. Such bulkheads shall be set back a minimum of 20 feet landward from the OHWM.~~
 - b. Bulkheads and other similar hard structures are prohibited on marine feeder bluff and estuarine shores, and on wetland and rock shores; provided, that such structures may be permitted as a conditional use where valuable primary structure(s) are at risk and no feasible alternatives exist and where ongoing monitoring, maintenance and mitigation for impacts to shoreline ecological functions and processes are provided.
 - c. Bulkheads and other similar hard structures shall be located within one foot of the bank toe, and shall generally parallel the shoreline.

Comment [CES245]: Moved above.

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- d. Bulkheads and other similar hard structures shall be designed and constructed with gravel backfill and weep holes so that natural downward movement of surface or ground water may continue without ponding or saturation.
 - e. Bulkheads exposed to significant wave action shall be designed to dissipate wave energy and scouring.
 - f. Walls, revetments or other similar hard structures within 10 feet of the OHWM shall be considered bulkheads; provided, that on accretion shoreforms walls or revetments or other similar hard structures within 20 feet of the OHWM shall be considered bulkheads.
3. Shore Stabilization on Streams. In those limited cases where a proposed bulkhead, revetment or other similar structure meets the criteria in this section for a shoreline permit or an exemption under WCC 23.60.022, and to assure that such revetment or similar structure will be consistent with this program, the administrator shall review the proposed design for consistency with state guidelines for stream bank protection as it relates to local physical conditions and issue written findings that the location and design meet all criteria of this program, subject to the following:
- a. Revetments or similar hard structures are prohibited on estuarine shores, in wetlands, on point and channel bars, and in salmon and trout spawning areas, except for the purpose of fish or wildlife habitat enhancement or restoration.
 - b. Revetments or similar hard structures shall be placed landward of associated wetlands unless it can be demonstrated that placement waterward of such features would not adversely affect ecological functions.
 - c. A geotechnical analysis of stream geomorphology both upstream and downstream shall be performed to assess the physical character and hydraulic energy potential of the specific stream reach and adjacent reaches upstream or down, and assure that the physical integrity of the stream corridor is maintained, that stream processes are not adversely affected, and that the revetment will not cause significant damage to other properties or valuable shoreline resources. In addition:
 - i. Revetments or similar structures shall not be developed on the low, innermost channel banks in a stream except to protect public works, railways and existing commercial farmsteads.
 - ii. Where revetments or similar structures are proposed, analysis shall assure that localized shore stabilization will be effective, as compared to more extensive cooperative measures to address reach scale processes. Revetments shall be set back at convex (inside) bends to allow streams to maintain point bars and associated aquatic habitat through normal accretion. Where revetments or similar structures have already cut off point bars from the stream, consideration should be given to their relocation.
 - iii. Revetments shall be designed in accordance with WDFW streambank protection guidelines.
 - d. Cut and fill slopes and backfilled areas shall be stabilized with brush matting and buffer strips and revegetated with native grasses, shrubs and/or trees so that there is no net loss of ecological functions.

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- e. ~~All forms of shore stabilization shall be constructed and maintained in a manner that does not degrade the quality of affected waters. The county may require reasonable conditions to achieve this objective such as setbacks, buffers, or storage basins.~~
- f. ~~Shore stabilization shall allow for normal ground water movement and surface runoff.~~
- g. ~~Selection of materials for projects shall be in conformance with applicable engineering standards.~~
4. ~~Viewpoints and Public Access.~~
 - a. ~~Where appropriate, larger public or private shore stabilization projects shall be required to maintain, replace or enhance existing public access opportunities by incorporating physical or visual access areas and/or facilities into the design of the project.~~
 - b. ~~Publicly financed or subsidized shoreline stabilization shall not restrict appropriate public access to the shoreline and shall provide new public access except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to shoreline ecological functions.~~
5. ~~Application Materials. Geotechnical reports required pursuant to this section shall address the need for shoreline stabilization and shall include the following:~~
 - a. ~~A scaled site plan showing:~~
 - i. ~~The location of existing and proposed shore stabilization, structures, fill, and vegetation, with dimensions indicating distances to the OHWM; and~~
 - ii. ~~Existing site topography, preferably with two foot contours.~~
 - b. ~~A description of the processes affecting the site, and surrounding areas that influence or could be influenced by the site, including areas in which stream processes, lake or marine geomorphic processes affect the site, including, but not limited to:~~
 - i. ~~Soil erosion, deposition, or accretion;~~
 - ii. ~~Evidence of past or potential channel migration;~~
 - iii. ~~Evidence of past or potential erosion due to tidal action and/or waves;~~
 - iv. ~~Littoral drift; and~~
 - v. ~~An estimate of shoreline erosion rates.~~
 - c. ~~A description and analysis of the urgency and risk associated with the specific site characteristics.~~
 - d. ~~A discussion and analysis demonstrating conformance with the standards enumerated in Chapter 16.16 WCC.~~
- C. ~~Shoreline Area Regulations.~~
 1. ~~Urban.~~
 - a. ~~Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - b. ~~Groins, breakwaters and jetties may be permitted as a conditional use.~~
 - c. ~~Gabions are prohibited.~~
 2. ~~Urban Resort.~~

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- ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
- ~~b. Groins, breakwaters and jetties may be permitted as a conditional use.~~
- ~~c. Gabions are prohibited.~~
- ~~3. Urban Conservancy.~~
 - ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - ~~b. Breakwaters and jetties may be permitted as a conditional use if accessory to a water-dependent use and littoral sediment transport is not significantly disrupted.~~
 - ~~c. Groins and gabions are prohibited.~~
- ~~4. Shoreline Residential.~~
 - ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - ~~b. Groins, breakwaters and jetties may be permitted as a conditional use.~~
 - ~~c. Gabions are prohibited.~~
- ~~5. Rural.~~
 - ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - ~~b. Groins, breakwaters and jetties may be permitted as a conditional use.~~
 - ~~c. Gabions are prohibited.~~
- ~~6. Resource.~~
 - ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - ~~b. Groins, breakwaters and jetties may be permitted as a conditional use.~~
 - ~~c. Gabions are prohibited.~~
- ~~7. Conservancy.~~
 - ~~a. Bulkheads, revetments, and bioengineering approaches are permitted subject to policies and regulations of this program.~~
 - ~~b. Breakwaters and jetties may be permitted as a conditional use if accessory to a water-dependent use and littoral sediment transport is not significantly disrupted.~~
 - ~~c. Groins and gabions are prohibited.~~
- ~~8. Natural. Shoreline stabilization is prohibited; except that bioengineering approaches may be permitted as a conditional use when necessary to restore an eroding accretion shoreform or to retard erosion elsewhere.~~
- ~~9. Aquatic.~~
 - ~~a. Bioengineering approaches are permitted on tidelands and shorelands when necessary to restore an eroding accretion shoreform or to retard erosion elsewhere subject to policies and regulations of this program.~~
 - ~~b. Groins, breakwaters, and jetties may be permitted as a conditional use if such development is permitted in the abutting upland shoreline area designation.~~

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c. ~~Bulkheads or revetments are prohibited except for an approved water dependent development subject to policies and regulations of this program.~~

d. ~~Gabions are prohibited~~

23.4100.180-200 Signs.

~~Signs in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC.~~

~~A. Policies.~~

~~A. Whatcom County recognizes the constitutional right for property owners to communicate using signs on their property. These policies are intended to ensure that signage within shoreline areas is consistent with the purpose and intent of the Act and this program by addressing impacts to ecological functions, public safety and visual aesthetics.~~

~~B. Signs should be located, designed and maintained to be visually compatible with local shoreline scenery as seen from both land and water, especially on shorelines of statewide significance.~~

~~C. Sign location and design should not significantly impair shoreline views.~~

~~D. As a preferable alternative to continued proliferation of single purpose signs, communities, districts, and/or multiuse or multitenant commercial developments are encouraged to erect single, common use gateway signs to identify and give directions to local premises and public facilities.~~

~~E. Signs of a commercial or industrial nature should be limited to those areas or premises to which the sign messages refer.~~

~~F. Billboards and other off premises signs are not water dependent, reduce public enjoyment of or access to shorelines, and often lower values of nearby properties. Such signs should not be located on shorelines except for approved community gateway or directional signs.~~

~~G. Signs near scenic vistas and view points should be restricted in number, location, and height so that enjoyment of these limited and scarce areas is not impaired.~~

~~H. Freestanding signs should be located to avoid blocking scenic views and be located on the landward side of public transportation routes which generally parallel the shoreline.~~

~~I. To minimize negative visual impacts and obstructions to shoreline access and use, low profile, on-premises wall signs are strongly preferred over freestanding signs or off-premises wall signs.~~

~~J. Signs should be designed mainly to identify the premises and nature of enterprise without unduly distracting uninterested passersby. Moving or flashing signs should be prohibited on shorelines.~~

~~B. Regulations.~~

~~A. General.~~

1. These provisions do not apply to private informational signs posted on private property by the owner for reasonable purposes such as address, No Trespass, and temporary signs such as For Sale, Rent and campaign signs; provided, that no such sign exceeds four square feet in area.

2. In addition to the regulations in this section, signs are subject to WCC 20.80.400, et seq. (Signs)

1-3. Unless otherwise prohibited by zoning regulations or this program, shoreline developments are permitted to maintain a total of three on-premises signs. Only one may be a freestanding, roof, or projecting sign; provided, that if this sign is double faced, then only one other wall sign is

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- permitted. ~~This provision does not apply to private informational signs posted on private property by the owner for reasonable purposes such as address, home occupation signs, No Trespass, and temporary signs such as For Sale, Rent and campaign signs; provided, no sign exceeds four square feet in area.~~ All signs proposed for a development requiring a substantial development permit shall be designated on application and approval documents.
2. ~~Multiuse or multitenant commercial developments shall erect no more than one sign at each street gateway.~~
3. ~~Communities, neighborhoods and districts shall erect no more than one sign at each street gateway identifying the name of the community or neighborhood and give directions to local premises and public facilities.~~
4. ~~Exception. Signs required by law and signs posted for legitimate safety purposes shall not be subject to limitations with respect to the number, location, and/or size; provided, that they are the minimum necessary to achieve the intended purpose. Such signs include but are not limited to official or legal notices issued and posted by any public agency or court, or traffic directional or warning signs.~~
5. ~~All building signs shall be integrated with building design. Roof signs shall be designed to occupy a design feature of the roof such as a dormer or gable and may not be placed above the peak of a pitched roof or the eave of a flat roof. Projecting signs shall be incorporated in a marquee, canopy, or other architectural feature.~~
6. ~~Applications for substantial development permits shall include a conceptual sign package addressing the size and location of all signs and shall include design standards to assure that all signs in a development are consistent in terms of material, color, height, size, and illumination.~~
7. ~~Sign permits not associated with a substantial development permit shall demonstrate compliance with all provisions of this code and shall be similar to and compatible with other signs in a development under a single ownership or approved as an integrated development.~~
- 8.4. ~~Sign illumination shall be indirect, incorporating exterior lighting shining on the sign, or shadow illumination behind nontransparent materials. Internally illuminated signs are prohibited.~~
- 9.5. ~~Distracting Devices. Any signs or other devices which flash, blink, flutter, rotate, oscillate, or otherwise purposely fluctuate in lighting or position, in order to attract attention through their distractive character, are prohibited on shorelines; provided, that searchlights, pennants, banners and other devices of seasonal, holiday, or special event character may be utilized for up to 90 days in one year.~~
- 10.6. ~~Freestanding signs other than those private informational signs described in subsection (B)(1) of this section are prohibited between a public right-of-way and the water where the water-body is visible from the public right-of-way.~~
- 11.7. ~~To protect views from the water or publicly accessible beaches or lands adjacent to the water, freestanding signs other than those private informational signs described in subsection (B)(1) of this section are prohibited between buildings and OHWM, and waterward of a line drawn from the nearest point of the building parallel to the shoreline; provided, that where a~~

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public road or path separates said building from the OHWM, up to one freestanding sign not to exceed 12 square feet is permitted between the road or path and said building.

~~12.8.~~ Signs may not be located in critical areas or buffers as established by WCC Chapter 16.16 except as otherwise provided for ~~therein~~ Chapter 16.16 WCC; provided, that pursuant to subsections (B)(1) and (4) of this section, signs may be permitted within critical area buffers where the placement of such signs does not require the removal of vegetation.

~~13.9.~~ Unless specifically exempted from setback requirements in WCC 23.40.020, the minimum required setbacks for permanent freestanding signs are 50 feet from the ordinary high water mark, where not subject to critical areas or buffers: 50 feet.

a. From side property lines: 10 feet.

b. Maximum height: 15 feet.

~~B.~~ Building mounted signs are subject to setbacks applicable to buildings. Height of wall signs may be measured from the floor elevation of the uppermost finished story; provided, the sign does not project above the roof of the building. Roof signs shall not extend higher than the maximum height of the primary building.

~~C.~~ Sign Area Limit.

a. The maximum area of individual sign faces shall be consistent with applicable zoning standards; provided, that the combined area of sign faces per premises shall not exceed 60 square feet with a maximum face area of freestanding signs not to exceed 12 square feet in all shoreline designations where signs are permitted, except on aquatic, urban conservancy, and conservancy shorelines and shorelines of statewide significance where the total sign area shall not exceed 24 square feet per premises and freestanding signs shall not exceed 4 square feet.

b. The size of individual building or tenant signs shall be governed in accordance with the following table:

Table 3. Sign Area Limits

Relevant building wall vertical surface area or facade area for a specific tenant ⁽¹⁾	Maximum sign surface area for that facade	Maximum sign area ⁽²⁾
Below 100 sq. ft.	4 sq. ft.	4 sq. ft.
100 – 199 sq. ft.	4 sq. ft. + 4% of the facade area over 100 sq. ft.	8 sq. ft.
200 – 499 sq. ft.	10 sq. ft. + 3% of the facade area over 200 sq. ft.	20 sq. ft.
500 sq. ft. or greater	26 sq. ft. + 2% of the facade area over 500 sq. ft. up to a maximum of 40 sq. ft.	40 sq. ft.

1. (1) Includes only vertical building walls, excludes all roof area above the eaves and any dormers or other vertical areas above roof eaves. For building tenants, includes the area of the projection of the interior partitions onto the exterior wall.

2. (2) On aquatic and conservancy shorelines and shorelines of statewide significance, no sign visible from a public right of way, the water, or publicly accessible beaches or lands adjacent to the water, shall exceed 24 square feet, and freestanding signs shall not exceed four square feet.

Comment [AP246]: Revised for consistency with WCC 23.40.020 (Bulk Provisions) per Scoping Document, Item #16b.

Comment [CES247]: Covered by 20.80.400

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~~3.10.~~ Freestanding signs shall be entirely self-supporting and structurally sound without permanent use of guy wires or cables.

~~4.11.~~ Signs shall comply with the standards in this section at any time a change in use or modification of structures requiring a substantial development permit is approved. Abandoned or derelict signs should either be properly restored or completely removed within a reasonable period of time by the sign owner or property owner as necessary.

B. Regulations for Specific Shoreline Environment Designations.

1. In the Natural shoreline environment, sign development is prohibited, except for trail marking, hazard warnings, or interpretive scientific or educational purposes and personal signs provided for in this section. Such permitted signs shall be limited in size and number to those required to affect their purpose.

2. In the Aquatic shoreline area environment, only wall signs and low-profile freestanding signs less than 30 inches in height for water-dependent uses are permitted, except as provided for in this section, and no premise may have more than two signs.

C. Shoreline Area Regulations.

A. Urban. Sign development is permitted subject to policies and regulations of this program.

B. Urban Resort. Sign development is permitted subject to policies and regulations of this program.

C. Shoreline Residential. Sign development is permitted subject to policies and regulations of this program.

D. Urban Conservancy. Sign development is permitted subject to policies and regulations of this program.

E. Rural. Sign development is permitted subject to policies and regulations of this program.

F. Resource. Sign development is permitted subject to policies and regulations of this program.

G. Conservancy. Sign development is permitted subject to policies and regulations of this program.

H. Natural. Sign development is prohibited, except for trail marking, hazard warnings, or interpretive scientific or educational purposes and personal signs provided for in subsection (B)(1) of this section. Such permitted signs shall be limited in size and number to those required to affect their purpose.

I. Aquatic. Only wall signs and low profile freestanding signs under 30 inches in height for water-dependent uses are permitted, except as provided for in subsections (B)(1) and (4) of this section. No one premises may maintain more than two signs in an aquatic shoreline area.

23.110.190-210 Transportation.

These regulations apply to both public and private transportation projects.

A. General. Roads, railways, and other transportation developments in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC. These policies and regulations apply to both public transportation projects and private transportation projects.

B. Policies.

C. New public or private transportation facilities should be located inland from the land/water interface, preferably out of the shoreline, unless:

Comment [AP248]: Carried over from removed 'Shoreline Area Regulations.'

Comment [CES249]: Addressed in use table now.

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- ~~D. Perpendicular water crossings are required for access to authorized uses consistent with this program; or~~
- ~~E. Facilities are primarily oriented to pedestrian and non motorized use and provide an opportunity for a substantial number of people to enjoy shoreline areas, and are consistent with policies and regulations for ecological protection in WCC 23.90.030.~~
- ~~F. Transportation facilities should be located and designed to avoid public recreation and public access areas and significant natural, historic, archaeological or cultural sites.~~
- ~~G. Parking is not a preferred use in shorelines and should only be allowed to support authorized uses where no feasible alternatives exist.~~
- ~~H. New or expanded public transportation facility route selection and development should be coordinated with related local and state government land use and circulation planning.~~
- ~~I. Transportation system route planning, acquisition, and design in the shoreline should provide space wherever possible for compatible multiple uses such as utility lines, pedestrian shore access or view points, or recreational trails.~~
- ~~J. Transportation system plans and transportation projects within shorelines should provide safe trail space for non motorized traffic such as pedestrians, bicyclists, or equestrians. Space for such uses should be required along roads on shorelines, where appropriate, and should be considered when rights-of-way are being vacated or abandoned.~~
- ~~K. Public access should be provided to shorelines where safe and compatible with the primary and adjacent use, or should be replaced where transportation development substantially impairs lawful public access. Viewpoints, parking, trails and similar improvements should be considered for transportation system projects in shoreline areas, especially where a need has been identified.~~
- ~~L. Public transportation routes, particularly arterial highways and railways, should be located, designed, and maintained to permit safe enjoyment of adjacent shore areas and properties by other appropriate uses such as recreation or residences. Vegetative screening or other buffering should be considered.~~
- ~~M. Regulations.~~
- A. General:
1. RCW 36.87.130 prohibits the County from vacating any county road that abuts a body of saltwater or freshwater except for port, recreational, educational, or industrial purposes. Therefore, development, abandonment, or alteration of undeveloped county road ends within SMP jurisdiction is prohibited unless approved in accordance with this program.
 2. Transportation development shall be carried out in a manner that maintains or improves state water quality standards for affected waters.
 3. Maintenance activity including vegetation control and erosion control shall be carried out consistent with this program. Necessary minor resurfacing of existing roadways and replacement of culverts that improve shoreline ecological functions may be exempt from substantial development permit requirements as provided by WCC 23.60.020 Title 22 (Land Use and Development).
 4. Transportation facilities must meet the following criteria:

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- 1 | a. ~~Documentation that~~ The proposed facilities cannot be feasibly located outside of shoreline
2 | jurisdiction due to the uses served or the need to connect specific end points. An analysis of
3 | alternatives may be required. ~~New or expanded public or private~~ Transportation facilities
4 | should be located inland from the land/water interface, preferably out of the shoreline.
- 5 | b. ~~Documentation that~~ The proposed facilities are primarily oriented to pedestrian use and
6 | provide an opportunity for a substantial number of people to enjoy shoreline areas.
- 7 | c. ~~Documentation that the proposed facilities comply with critical area regulations in WCC~~
8 | ~~Chapter 16.16.~~
- 9 | d. ~~Documentation of how~~ The location, design, and use achieves no net loss of shoreline
10 | ecological functions and incorporate appropriate mitigation in accordance with
11 | WCC ~~23.30.020~~ 23.30.010 (Ecological Protection).
- 12 | d. ~~Documentation that~~ The proposed facilities avoid public recreation areas and significant
13 | natural, historic, archaeological or cultural resources, or ~~that~~ no alternative is feasible
14 | outside of the shoreline and ~~that~~ all feasible measures to minimize adverse impacts have
15 | been incorporated into the proposal.

Comment [PDS250]: Redundent. Already a general regulation.

B. Site Design and Operation.

- 17 | ~~4.1.~~ Transportation facilities on shorelines shall be designed to generally follow natural topography,
18 | to minimize cuts and/or fills, to avoid cutting off meander bends or point bars, and to avoid
19 | adverse impacts to shoreline ecological functions and processes. Wherever such roads or
20 | railway embankments cross depressions remaining from remnant channels and oxbow bends,
21 | crossings of ample cross-section shall be provided to span the remnant feature.
- 22 | ~~5.2.~~ Raised arterial roads or railways shall be built outside the floodway except for necessary
23 | crossings. If built in the floodway fringe, such routes should be aligned generally parallel to
24 | outside stream bends so they will also act as setback dikes. Any parking areas required along
25 | such roads shall be sited at the base of the embankment and at the downstream corner of large
26 | accretion beaches, thus requiring no or minimal flood hazard reduction control-works or
27 | shoreline stabilization. Local access roads in floodplains shall be built at valley floor grade level
28 | so that floodwaters are not abnormally obstructed nor diverted. Transportation facilities shall
29 | be designed so that no significant loss of floodway capacity or measurable increase in
30 | predictable flood levels will result. If transportation facilities are intended to secondarily provide
31 | flood hazard reduction control, they shall comply with policies of the Comprehensive Plan and
32 | regulations for flood hazard reduction control-works under WCC ~~23.40.080~~ 23.40.100 (Flood
33 | Hazard Reduction and Instream Structures).
- 34 | ~~6.3.~~ If a road is demonstrated to be necessary along an accretion shoreform, the waterward road
35 | shoulder shall be set back far enough from the primary berm so that the berm may absorb the
36 | high energy of storm tide breakers, as well as prevent road bed erosion and allow optimum
37 | recreational use of these scarce shore features.
- 38 | ~~7.4.~~ Spans on rivers shall avoid placing structures within the channel migration zone or other
39 | dynamic, shifting channel elements such as bends.

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~~8-5.~~ Earth cut slopes and other exposed soils shall be placed, compacted, and planted or otherwise stabilized and protected from surface runoff with native vegetation. Transportation facilities sited close to water, wetlands, or other sensitive features shall incorporate the maximum feasible buffer of native vegetation in accordance with critical area regulations in WCC Chapter 16.16.

~~9-6.~~ Bridges or bottomless culverts or other similar structures shall be used in accordance with WDFW guidance to protect shoreline ecological functions and processes. Bridge approaches in floodways shall be constructed on open piling, support piers, or other similar measures to preserve hydraulic processes.

~~10-7.~~ Bridge supports and abutments shall be designed and spaced so they do not act as walls baffling or blocking flood waters, or interrupting stream channel processes or littoral drift.

~~11-8.~~ Transportation facilities shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Elements within or over water shall be constructed of materials approved by applicable state agencies for use in water for both submerged portions and other components to avoid discharge of pollutants from splash, rain or runoff. Wood treated with creosote, pentachlorophenol or other similarly toxic materials are prohibited. Preferred materials are concrete and steel.

~~12-9.~~ Vehicle and pedestrian circulation systems shall be designed to minimize clearing, grading and alteration of topography and natural features. Roadway and driveway alignment shall follow the natural contours of the site and minimize width to the maximum extent feasible. Elevated walkways should be utilized to cross wetlands.

~~10.~~ Nonemergency construction and repair work shall be scheduled for that time of year when seasonal conditions (weather, streamflow) permit optimum feasible protection of shoreline ecological functions and processes.

~~N.C.~~ Additional Standards for Parking Facilities.

~~1.~~ Parking facilities are not a water-dependent use and shall only be permitted in the shoreline to support an authorized use where it can be demonstrated that there are no feasible alternative locations away from the shoreline. Parking facilities shall be buffered from the water's edge and less intense adjacent land uses by vegetation screening, undeveloped space, or structures developed for the authorized primary use.

~~1-2.~~ Parking areas shall be developed ~~utilizing~~ using low impact development techniques whenever possible including, but not limited to, the use of permeable surfacing materials.

~~2-3.~~ Impervious surfacing for parking lot/space areas shall be minimized through the use of alternative surfaces where feasible, consistent with the most current Low Impact Development Technical Guidance Manual for Puget Sound, or as amended.

~~3.~~ ~~Minimum required setbacks from shorelines are contained in WCC 23.90.130, Shoreline bulk provisions. Buffers, setbacks, height, open space and impervious surface coverage.~~

D. Supplemental Application Requirements.

1. In addition to the application requirements specified in WCC Title 22 (Land Use and Development), All applications for new or expanded transportation facilities shall be

Comment [DN251]: Moved from Site Planning section (WCC 23.30.080).

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1 accompanied by adequate documentation that the proposal meets the policies and regulations
2 of this program, including ~~but not limited to:~~ subsection (A)(4) of this section.

- 3 ~~2. Documentation that the facility cannot be feasibly located outside of shoreline jurisdiction due~~
4 ~~to the uses served or the need to connect specific end points. An analysis of alternatives may be~~
5 ~~required. New or expanded public or private transportation facilities should be located inland~~
6 ~~from the land/water interface, preferably out of the shoreline.~~
- 7 ~~3. Documentation that the facilities are primarily oriented to pedestrian use and provide an~~
8 ~~opportunity for a substantial number of people to enjoy shoreline areas.~~
- 9 ~~4. Documentation that the proposed facilities comply with critical area regulations in~~
10 ~~Chapter 16.16-WCC.~~
- 11 ~~5. Documentation of how the location, design, and use achieves no net loss of shoreline ecological~~
12 ~~functions and incorporate appropriate mitigation in accordance with WCC 23.90.030.~~
- 13 ~~6. Documentation that facilities avoid public recreation areas and significant natural, historic,~~
14 ~~archaeological or cultural resources, or that no alternative is feasible outside of the shoreline~~
15 ~~and that all feasible measures to minimize adverse impacts have been incorporated into the~~
16 ~~proposal.~~

17 E. Regulations for Specific Shoreline Environment Designations.

- 18 1. In the Urban Conservancy and Conservancy shoreline area environments, transportation
19 facilities are permitted only for access to approved development.
- 20 2. In the Natural shoreline area environment, transportation facilities are prohibited, except to
21 access approved recreational development.
- 22 3. In the Aquatic shoreline area environment, access to water-dependent or water-related uses,
23 such as ferry terminals, is permitted. Bridge crossings for non-water-dependent or non-water-
24 related uses may be permitted as a shoreline conditional use.

25 A. Shoreline Area Regulations.

- 26 1. ~~Urban. Transportation facilities are permitted subject to policies and regulations of this~~
27 ~~program. Transportation facilities not serving a specific approved use, including roads, railways,~~
28 ~~and parking areas, may be permitted as a conditional use, provided there is no feasible location~~
29 ~~outside of the shoreline.~~
- 30 2. ~~Urban Resort. Transportation facilities are permitted subject to policies and regulations of this~~
31 ~~program. Transportation facilities not serving a specific approved use, including roads, railways,~~
32 ~~and parking areas, may be permitted as a conditional use, provided there is no feasible location~~
33 ~~outside of the shoreline.~~
- 34 3. ~~Urban Conservancy. Transportation facilities are permitted only for access to approved~~
35 ~~development, subject to policies and regulations of this program.~~
- 36 4. ~~Shoreline Residential. Transportation facilities are permitted subject to policies and regulations~~
37 ~~of this program. Transportation facilities not serving a specific approved use, including roads,~~
38 ~~railways, and parking areas, may be permitted as a conditional use, provided there is no feasible~~
39 ~~location outside of the shoreline.~~

Comment [AP252]: Carried over from removed
'Shoreline Area Regulations.'

Comment [CES253]: Addressed in use table
now.

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5. ~~Rural. Transportation facilities are permitted subject to policies and regulations of this program. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, may be permitted as a conditional use, provided there is no feasible location outside of the shoreline.~~
6. ~~Resource. Transportation facilities are permitted subject to policies and regulations of this program. Transportation facilities not serving a specific approved use, including roads, railways, and parking areas, may be permitted as a conditional use, provided there is no feasible location outside of the shoreline.~~
7. ~~Conservancy. Transportation facilities are permitted only for access to approved development, subject to policies and regulations of this program.~~
8. ~~Natural. Transportation facilities are prohibited, except to access approved recreational development.~~
9. ~~Aquatic. Access to water dependent or water related uses, such as ferry terminals, is permitted subject to policies and regulations of this program. New or expanded bridge crossings for non-water dependent or non-water related uses may be permitted as a conditional use.~~

23.4100.200-220 Utilities.

Utility development in shoreline areas shall be subject to the policies and regulations of this section and Chapter 23.90 WCC. These policies and regulations apply to both ~~local and regional, both public and private utilities.~~ This section applies to regional and local utilities, both public and private, but not to accessory utilities (see definitions in WCC Chapter 23.60); however, there are regulations regarding septic systems located in WCC 23.30.020 (Water Quality and Quantity).

A. Policies.

- A. ~~New public or private utilities should be located inland from the land/water interface, preferably out of the shoreline jurisdiction, unless:~~
 - a. ~~Perpendicular water crossings are unavoidable; or~~
 - b. ~~Utilities are required for authorized shoreline uses consistent with this program.~~
- B. ~~Utilities should be located and designed to avoid public recreation and public access areas and significant natural, historic, archaeological or cultural resources.~~
- C. ~~Utilities should be located, designed, constructed, and operated to result in no net loss of shoreline ecological functions and processes with appropriate mitigation as provided in WCC 23.90.030.~~
- D. ~~All utility development should be consistent with and coordinated with all local government and state planning, including comprehensive plans and single purpose plans to meet the needs of future populations in areas planned to accommodate growth. Site planning and rights of way for utility development should provide for compatible multiple uses such as shore access, trails, and recreation or other appropriate use whenever possible; utility right of way acquisition should also be coordinated with transportation and recreation planning.~~
- E. ~~Utilities should be located in existing rights of way and corridors whenever possible.~~
- F. ~~Utilities serving new development should be located underground, wherever possible.~~
- G. ~~Development of pipelines and cables on aquatic lands and tidelands, particularly those running roughly parallel to the shoreline, and development of facilities that may require periodic~~

Comment [AP254]: Added pursuant to scoping document Item 17i.

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1 maintenance which would disrupt shoreline ecological functions should be discouraged except
2 where no other feasible alternative exists. When permitted, provisions shall assure that the facilities
3 do not result in a net loss of shoreline ecological functions or significant impacts to other shoreline
4 resources and values.

~~B. Regulations.~~

~~A. General Design and Operation.~~

- 7 1. ~~Components of water systems.~~ Utilities which ~~that~~ are not water-dependent shall be located
8 away from shoreline jurisdiction unless alternative locations, including alternative technology,
9 are demonstrated to be infeasible and it is demonstrated that the facilities do not result in a net
10 loss of shoreline ecological functions and processes or significant adverse impacts to other
11 shoreline resources and values such as parks and recreation facilities, public access, and
12 archaeological, historic, and cultural resources, and ~~or~~ aesthetic resources.
- 13 2. ~~Fire Protection Facilities.~~ Storage and handling facilities for water-borne firefighting or rescue
14 equipment may be permitted on shoreline jurisdiction at locations which are suitable
15 considering the purpose of the proposal and the policies of the Comprehensive Plan.
- 16 3. Utilities shall be located within roadway and driveway corridors and rights-of-way wherever
17 feasible.

~~3.4. New and expanded utilities~~ must meet the following criteria:

- 19 a. ~~Documentation that~~ The proposed facilities cannot be feasibly located outside of shoreline
20 jurisdiction due to the uses served or the need to cross shorelands to connect specific end
21 points. An analysis of alternatives may be required. ~~New or expanded public or private~~
22 Utilities should be located inland from the land/water interface, preferably out of shoreline
23 jurisdiction.
- 24 b. ~~Documentation that the proposed facilities comply with critical area regulations in WCC~~
25 ~~Chapter 16.16.~~
- 26 c. ~~b. Documentation of how~~ The location, design, and use of the proposed facility achieves no
27 net loss of shoreline ecological functions and incorporates appropriate mitigation in
28 accordance with WCC ~~23.30.020~~ 23.30.010 (Ecological Protection).
- 29 d. ~~c. Documentation that~~ The proposed facilities will avoid public recreation areas and significant
30 natural, historic, archaeological or cultural ~~resources~~ sites, and that all feasible measures to
31 minimize adverse impacts to such resources have been incorporated into the proposal.
- 32 d. ~~Applications must demonstrate~~ The proposal includes adequate provisions for preventing
33 spills or leaks, as well as procedures for mitigating damages from spills or other
34 malfunctions and shall demonstrate that periodic maintenance will not disrupt shoreline
35 ecological functions.
- 36 e. If the proposal is for oil, gas, and natural gas utilities and pipelines or electrical energy and
37 communications utilities ~~Application materials, it shall~~ includes an analysis of alternative
38 routes avoiding aquatic lands, including an analysis of alternative technology.

Comment [CES255]: Moved from Site Planning section; required by WAC 173-26-241(3)(l).

Comment [PDS256]: Redundant. Already a general regulation.

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B. Additional Standards for Specific Utilities ~~Water Systems.~~

1. Desalinization facilities shall be located consistent with critical area regulations and buffers,
except for water-dependent components such as water intakes.

2. Solid Waste Facilities.

a. ~~Private and public intake facilities, and wells on shorelines, should be located where there~~
~~will be no net loss in ecological functions or adverse impacts upon shoreline resources,~~
~~values, natural features, or other users.~~

b. ~~Desalinization facilities shall be located consistent with critical area regulations and buffers,~~
~~except for water-dependent components such as water intakes.~~

c. ~~Sewage Systems.~~

d. ~~Sewage trunk lines, interceptors, pump stations, treatment plants and other components~~
~~that are not water-dependent shall be located away from shoreline jurisdiction unless~~
~~alternative locations, including alternative technology, are demonstrated to be infeasible~~
~~and it is demonstrated that the facilities do not result in a net loss of shoreline ecological~~
~~functions and processes or significant impacts to other shoreline resources and values such~~
~~as parks and recreation facilities, public access and archaeological, historic, and cultural~~
~~resources, and aesthetic resources.~~

e. ~~Outfall pipelines and diffusers are water-dependent, but should be located only where there~~
~~will be no net loss in shoreline ecological functions and processes or adverse impacts upon~~
~~shoreline resources and values.~~

f. ~~Septic tanks and drainfields are prohibited where public sewer is reasonably available.~~

~~g.~~ a. Solid Waste Facilities. Facilities for processing, storage and disposal of solid waste are not
normally water-dependent. Components that are not water-dependent shall not be
permitted ~~on~~ in shoreline jurisdiction.

~~h.~~ b. Disposal of solid waste on shorelines or in water-bodies has potential for severe adverse
effects upon ecological processes and functions, property values, public health, natural
resources, and local aesthetic values and shall not be permitted.

~~i.~~ c. Temporary storage of solid waste in suitable receptacles is permitted as an accessory use to
a primary permitted use, or for litter control.

2.3. Oil, Gas and Natural Gas Transmission.

a. ~~Regional~~ Oil, gas, and natural gas utility pipelines, except local service lines, shall not be
located in shoreline jurisdiction unless alternatives are demonstrated to be infeasible ~~and~~
~~shall include analysis of alternative routes avoiding aquatic lands and including alternative~~
~~technology.~~

b. Local ~~Natural gas local service lines~~ utilities shall not be located in ~~shoreline area~~ shoreline
environments unless serving approved shoreline uses. Crossings of shorelines shall not be
approved unless alternatives are demonstrated to be infeasible. ~~Application materials shall~~
~~include an analysis of alternative routes avoiding aquatic lands, including an analysis of~~
~~alternative technology.~~

Comment [DN257]: Moved to the General Regs
– Water Quality section as this would apply
universally and relates more to accessory utilities

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C. ~~Developers and operators of pipelines and related appurtenances for gas and oil shall be required to demonstrate adequate provisions for preventing spills or leaks, as well as established procedures for mitigating damages from spills or other malfunctions and shall demonstrate that periodic maintenance will not disrupt shoreline ecological functions.~~

Comment [AP258]: Captured above.

1-4. ~~Electrical Energy and Communication Systems.~~

2. ~~Energy and communication systems including substations, towers, transmission and distribution lines have critical location requirements, but are not normally water dependent. Systems components that are not water dependent shall not be located on shoreline jurisdiction unless alternatives are infeasible. Application materials for such facilities shall include an analysis of alternative routes avoiding aquatic lands, including an analysis of alternative technology.~~

a. ~~Underground placement of lines shall be required on shorelines for new or replacement lines that are parallel to the shoreline, and do not cross water or other critical areas defined in WCC Chapter 16.16; provided, that maintenance of existing aerial lines above 35kv may be permitted above ground where alternatives are demonstrated to be impractical and/or infeasible. New or replacement lines that cross water or other critical areas defined in Chapter 16.16 WCC may be required to be placed underground depending on impacts on ecological functions and processes and visual impacts; provided, that maintenance of existing aerial lines above 35 kv may be permitted above ground where alternatives are demonstrated to be impractical and/or infeasible. Poles or supports treated with creosote or other wood preservatives that may be mobile in water shall not be used along shorelines or associated wetlands. Where road rights-of-way or easements are within 150 feet and also are parallel to the shoreline for more than 500 feet, no new overhead wiring shall be installed between the road and OHWM.~~

b. ~~Utilities for new development within the shoreline shall be installed underground.~~

a. ~~Other Utility Production and Processing Facilities. Other utility processing facilities, such as power plants, that are non water oriented shall not be allowed in shoreline jurisdiction unless no other feasible alternative is available.~~

Comment [AP259]: Revised for conciseness and clarity.

b. ~~Minimum required setbacks from shorelines and side property lines and maximum height limits are contained in WCC 23.90.130, Shoreline bulk provisions — Buffers, setbacks, height, open space and impervious surface coverage.~~

c. ~~Site Coverage. Maximum site coverage for utility development including parking and storage areas shall not exceed standards in the underlying zoning in WCC Title 20 and shall not exceed 50 percent on urban, urban resort and shoreline residential shorelines, 35 percent on rural and resource shorelines and 20 percent on urban conservancy and conservancy shorelines.~~

5. ~~Hydropower Development. In addition to the general requirements, above, hydropower facilities shall be located, designed, and operated to:~~

a. ~~Minimize impacts to fish and wildlife resources including spawning, nesting, rearing habitat, migratory routes, and critical areas. Mitigation measures to achieve no net loss of shoreline ecological functions and processes shall be implemented in accordance with WCC 23.30.010 (Ecological Protection).~~

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- b. Minimize impacts to geohydraulic processes; waterfalls; erosion and accretion shoreforms; agricultural land; scenic vistas; recreation sites; and sites having significant historical, cultural, scientific, or educational value.
- c. Accommodate public access to, and multiple use of, the shoreline.
- d. Comply with the instream structure regulations of 23.40.100 (Flood Hazard Reduction and Instream Structures).

C. Supplemental Application Requirements.

- 1. In addition to the minimum application requirements specified in WCC Title 22 (Land Use and Development), All applications for new or expanded utilities shall be accompanied by adequate documentation that the proposal meets the policies and regulations of this program, including but not limited to subsection (1)(b) of this section.

D. Regulations for Specific Shoreline Environment Designations.

- 1. In the Urban Conservancy and Conservancy shoreline environments, local utility development is permitted; provided, that sewage outfalls and treatment plants, over-water communication or power-lines, fuel pipelines, and other types of hazardous material pipelines may be permitted as a shoreline conditional use, provided there is no feasible location outside the shoreline.
- 2. In the Natural shoreline environment, utility development is prohibited. Maintenance of existing utilities is permitted and shall take extraordinary measures in protecting the natural features therein.
- 3. In the Aquatic shoreline environment:
 - a. Submarine electrical or communications cables, over-water public utility lines consisting of local distribution facilities if adequately flood-proofed, water intakes, and desalinization facility intakes are permitted.
 - b. Submarine water and sewer lines, fuel pipelines, sewer, and desalinization outfalls may be permitted as shoreline conditional uses.
 - c. Crossings of water-bodies by over-water transmission or distribution lines and on-site electrical communication wiring may be permitted within 100 feet of the OHWM and wetlands and over bodies of water as a shoreline conditional use. All other utility development is prohibited.

~~C. Shoreline Area Regulations.~~

- ~~A. Urban. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program. Regional facilities, including transmission facilities serving customers outside of Whatcom County may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Desalinization facilities may be permitted as a conditional use.~~
- ~~B. Urban Resort. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Desalinization facilities may be permitted as a conditional use.~~

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Comment [AP260]: Moved from 'Shoreline Area Regulations,' below.

Comment [CES261]: Addressed by use table now.

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- ~~C. Urban Conservancy. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program; provided, that sewage outfalls and treatment plants, over water communication or power lines, fuel pipelines, and other types of hazardous material pipelines may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Freestanding communication towers are prohibited. Desalinization facilities may be permitted as a conditional use.~~
- ~~D. Shoreline Residential. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Desalinization facilities may be permitted as a conditional use.~~
- ~~E. Rural. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Desalinization facilities may be permitted as a conditional use.~~
- ~~F. Resource. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Desalinization facilities may be permitted as a conditional use.~~
- ~~G. Conservancy. Utility development consisting of local distribution facilities is permitted subject to policies and regulations of this program; provided, that sewage outfalls and treatment plants, over water communication or power lines, fuel pipelines, and other types of hazardous material pipelines may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Regional facilities, including transmission facilities serving customers outside of Whatcom County, may be permitted as a conditional use, provided there is no feasible location outside the shoreline. Freestanding communication towers are prohibited. Desalinization facilities may be permitted as a conditional use.~~
- ~~H. Natural.~~
- ~~a. Utility development is prohibited.~~
- ~~b. Maintenance of existing utilities is permitted and shall take extraordinary measures in protecting the natural features therein.~~
- ~~I. Aquatic.~~
- ~~a. Submarine electrical or communications cables, over water public utility lines consisting of local distribution facilities if adequately flood proofed, water intakes, and desalinization facility intakes are permitted subject to policies and regulations of this program.~~

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- 1 | ~~b. Submarine water and sewer lines, fuel pipelines, sewer, and desalination outfalls may be~~
- 2 | ~~permitted as conditional uses.~~
- 3 | ~~c. Crossings of water bodies by over water transmission or distribution lines and on-site~~
- 4 | ~~electrical communication wiring may be permitted within 100 feet of the OHWM and~~
- 5 | ~~wetlands and over bodies of water as a conditional use. All other utility development is~~
- 6 | ~~prohibited.~~

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Chapter 23.50 Applicability and Nonconforming Uses, Structures, and Lots

23.50.010 Application to persons and development.

C. This program shall apply to any person as defined in Chapter 23.110 WCC.

D. This program shall apply to any use or development as defined in Chapter 23.110 WCC. All development and use of shorelines of the state shall be carried out in a manner that is consistent with this program and the policy of the Act as required by RCW 90.58.140(1), whether or not a shoreline permit or statement of exemption is required for such development pursuant to Chapter 23.60 WCC.

E. No substantial development as defined in Chapter 23.110 WCC shall be undertaken within shorelines by any person on shorelines without first obtaining a substantial development permit from Whatcom County; provided, that such a permit shall not be required for the exempt activities listed in WCC 23.60.022.

23.50.020 Relationship to other local regulations.

F. In the case of development subject to the shoreline permit requirement of this program, the county building official shall not issue a building permit for such development until a shoreline permit has been granted; provided, that any permit issued by the building official for such development shall be subject to the same terms and conditions that apply to the shoreline permit.

G. In the case of development subject to regulations of this program but exempt from the shoreline substantial development permit requirement, any required statement of exemption shall be obtained prior to issuance of the building permit; provided, that for single family residences, a building permit reviewed and signed off by the administrator may substitute for a written statement of exemption. A record of review documenting compliance with bulk and dimensional standards as well as policies and regulations of this program shall be included in the permit review. The building official shall attach and enforce conditions to the building permit as required by applicable regulations of this program pursuant to RCW 90.58.140(1).

H. In the case of zoning conditional use permits and/or variances required by WCC Title 20 for development that is also within shorelines, the county decision maker shall document compliance with bulk and dimensional standards as well as policies and regulations of this program in consideration of recommendations from the administrator. The decision maker shall attach conditions to such permits and variances as required to make such development consistent with this program.

I. In the case of land divisions, such as short subdivisions, long plats and planned unit developments that require county approval, the decision maker shall document compliance with bulk and dimensional standards as well as policies and regulations of this program and attach appropriate conditions and/or mitigating measures to such approvals to ensure the design, development activities and future use associated with such land division(s) are consistent with this program.

Comment [AP262]: Moved Applicability portion to Chapter 23.10, Purpose, Intent, and Applicability

Comment [AP263]: Moved to Chapter 23.10

Comment [AP264]: Moved to Chapter 23.05.

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- J. ~~Other local ordinances that may be applicable to shoreline development or use include, but are not limited to:~~
- ~~1. Building, plumbing, mechanical, and fire codes.~~
 - ~~2. Boating and swimming, WCC Title 11.~~
 - ~~3. On-site sewage system regulations, Chapter 24.05 WCC.~~
 - ~~4. Solid waste rules and regulations, Chapter 24.06 WCC.~~
 - ~~5. Zoning, WCC Title 20.~~
 - ~~6. Land division regulations, WCC Title 21.~~
 - ~~7. Development standards.~~

23.50.030 Relationship to other state and federal laws.

Comment [AP265]: Moved to Chapter 23.05

- F. ~~Obtaining a shoreline permit or statement of exemption for a development or use does not excuse the applicant/proponent from complying with any other local, tribal, state, regional or federal statutes or regulations applicable to such development or use.~~
- G. ~~At the time of application or initial inquiry, the administrator shall inform the applicant/proponent of other such statutes and regulations relating to shoreline issues that may be applicable to the project to the extent that the administrator is aware of such statutes. However, the final responsibility for determining applicable statutes and regulations and complying with the same rests with the applicant/proponent or responsible person carrying out the use or development in question.~~
- H. ~~Washington State statutes together with implementing regulations adopted pursuant thereto that may be applicable to shoreline development or use include, but are not limited to:~~
- ~~1. Flood Control Zone Act, Chapter 86.16 RCW.~~
 - ~~2. Forest Practices Act, Chapter 76.09 RCW.~~
 - ~~3. Fish and Wildlife, RCW Title 77.~~
 - ~~4. Water Pollution Control Act, Chapter 90.48 RCW.~~
 - ~~5. Land Subdivision Act, Chapter 58.17 RCW.~~
 - ~~6. Surface Mining Act, Chapter 78.44 RCW.~~
 - ~~7. Washington Clean Air Act, Chapter 70.94 RCW.~~
 - ~~8. State Environmental Policy Act (SEPA), Chapter 43.21C RCW.~~
 - ~~9. Camping Resorts Act, Chapter 19.105 RCW.~~
 - ~~10. Water Resources Act of 1971, Chapter 90.54 RCW.~~
 - ~~11. Growth Management Act, Chapter 36.70A RCW.~~
 - ~~12. State Hydraulic Code, Chapter 77.55 RCW.~~
- I. ~~Regional authority regulations authorized by state law that may be applicable to shoreline development or use include, but are not limited to:~~
- ~~1. Northwest Clean Air Agency regulations.~~
 - ~~2. Puget Sound Water Quality Management Plan.~~
- J. ~~Federal statutes together with implementing regulations adopted pursuant thereto that may be applicable to shoreline development or use include, but are not limited to:~~

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1. ~~Rivers and Harbors Act of 1899.~~
2. ~~Fish and Wildlife Coordination Act of 1958.~~
3. ~~National Environmental Policy Act of 1969 (NEPA).~~
4. ~~Coastal Zone Management Act of 1972, as amended.~~
5. ~~Federal Water Pollution Control Act, as amended.~~
6. ~~Flood Insurance Act of 1968, as amended.~~
7. ~~Clean Air Act, as amended.~~
8. ~~Endangered Species Act (ESA).~~

23.50.040 Application within federal reserves.

- B. ~~The shoreline permit procedures, policies and regulations established in this program shall apply to development or use of shorelines of the state within national forests, national parks and national recreation areas by persons other than federal agencies.~~
- C. ~~As recognized by RCW 90.58.350, the provisions of this program shall not apply to lands held in trust by the United States for Indian nations, tribes or individuals.~~

Comment [AP266]: Moved to Chapter 23.05

23.50.050 Program effects on property values.

- C. ~~As provided for in RCW 90.58.290, the restrictions imposed upon use of real property through implementation of policies and regulations of the Act and this program shall be duly considered by the county assessor and the county board of equalization in establishing the fair market value of such properties.~~
- D. ~~Designation of private property as a natural or conservancy shoreline area pursuant to Chapter 23.30 WCC shall qualify the property as meeting the definition of "open space land" under the Open Space Taxation Act of 1970, as amended (RCW 84.34.020(1)) and shall qualify such land for application for open space taxation in accordance with RCW 84.34.037 and Chapter 3.28 WCC.~~

Comment [AP267]: Moved to Chapter 23.05

23.50.060 Hazardous substance remedial actions.

- A. ~~The procedural requirements of Chapter 90.58 RCW shall not apply to a project for which a consent decree, order, or agreed order has been issued pursuant to Chapter 70.105D RCW or to the Department of Ecology when it conducts a remedial action under Chapter 70.105D RCW. The Department of Ecology shall, in consultation with the administrator, assure that such projects comply with the substantive requirements of Chapter 90.58 RCW, Chapter 173-26 WAC and this program. (Ord. 2009-13 § 1 (Exh. 1)).~~

Comment [AP268]: Deleted per Periodic Review Checklist, Item 2017.c, and Scoping Document, Item #1c. Exceptions are now established in §22.07.010(G).

23.50.070 Nonconforming development.

- ~~The following provisions shall apply to lawfully established uses, buildings and/or structures that do not meet the specific standards of this program.~~
- A. ~~The lawfully established use of any building, structure, land or premises existing on the effective date of initial adoption of the program (August 27, 1976), or any subsequent amendment thereto or authorized under a permit or approval issued, or otherwise vested, prior to the effective date of initial adoption of the program or any subsequent amendment thereafter shall be considered~~

Comment [MD269]: Rewritten (below) per the latest DOE guidance that separates out nonconforming uses, development, and lots. See minor revisions to draft replacement text below.

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nonconforming and may be continued, subject to the provisions of this section; provided, that agricultural activities shall conform to WCC 16.16.290; provided further, that bulkheads shall conform to WCC 23.100.130.

~~B. Nonconforming structures may be maintained, repaired, renovated, or remodeled to the extent that nonconformance with the standards and regulations of this program is not increased; provided, that a nonconforming development that is moved any distance must be brought into conformance with this program and the Act; provided further, that as a conditional use a nonconforming dock may be modified, reoriented or altered within the same general location to be more consistent with the provisions of this SMP.~~

~~C. Nonconforming structures, other than single family residences and their appurtenances that are expanded or enlarged must obtain a variance or be brought into conformance with this program and the Act; provided, that nonconforming structures with conforming uses may be expanded or enlarged within the existing building footprint as a conditional use pursuant to WCC 23.100.050(B)(1)(c).~~

~~D. Nonconforming structures (including accessory structures) that are damaged or destroyed by fire, explosion, flood, or other casualty may be restored or replaced in kind; provided, that:~~

~~1. Structures containing conforming uses, such as a single family residence or accessory structure, that are located within a hazardous area shall be redeveloped consistent with the requirements of Chapter 16.16 WCC, Article 3 (Geologically Hazardous Areas) and Article 4 (Frequently Flooded Areas); provided, that the permit process is commenced within 18 months of the date of such damage; and the reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in subsections H and I of this section.~~

~~2. Structures containing nonconforming uses can be replaced in kind if there is no feasible alternative that allows for compliance with the provisions of this program, and the permit process is commenced within 18 months of the date of such damage, and the reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in subsection E or H of this section.~~

~~E. If a nonagricultural nonconforming use is intentionally abandoned for a period of 12 months or more, then any future use of the nonconforming building, land or premises shall be consistent with the provisions of this program.~~

~~F. Replacement of any nonconforming structures or buildings or portions thereof within the aquatic shoreline area shall comply with program requirements for materials that come in contact with the water pursuant to WCC 23.90.040(B)(5); provided, that replacement of existing wood pilings with chemically treated wood is allowed for maintenance purposes where use of a different material such as steel or concrete would result in unreasonable or unsafe structural complications; further provided, that where such replacement exceeds 20 percent of the existing pilings over a 10-year period, such pilings shall conform to the standard provisions of this section.~~

~~G. Enlargement or expansion of single family residences by the addition of space to the main structure or by the addition of normal appurtenances as defined in Chapter 23.110 WCC that extend waterward of the existing primary residential foundation walls further into a critical area (excluding~~

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the buffers of the critical areas), further into the minimum required side yard setback, or that increase the structure height above the limits established by this program shall require a variance; provided, that expansion of nonconforming single family residences other than that specified in this subsection I may be expanded without a variance where the provisions of subsection J or K of this section apply.

~~H. The enlargement or expansion of single family residences by the addition of space to the exterior of the main structure or normal appurtenances is permitted without a conditional use permit or variance once during the life of the structure (100 years). The structure shall be located landward of the ordinary high water mark, and any expansion of the footprint is landward of the existing building footprint (not the side yard), and any vertical expansion is within the existing building footprint; provided, that the following conditions are met:~~

- ~~1. Enlargements, expansions, or additions that increase the existing primary structure or normal appurtenances by up to 250 square feet of gross floor area as defined by Chapter 23.110 WCC shall be allowed provided the expansion or addition will occur on a previously impacted impervious surface and the expansion is not waterward of the common line setback as illustrated in Appendix F.~~
- ~~2. Enlargements, expansions, or additions that increase the total footprint of the existing primary structure or normal appurtenances by 250 to 500 square feet of gross floor area as defined by Chapter 23.110 WCC shall be allowed; provided, that the addition will occur on a previously impacted impervious surface and the expansion is not waterward of the common line setback as illustrated in Appendix F; further provided, that the shoreline is enhanced by the equivalent area of a building footprint that is expanded. If enhanced through planting, the administrator shall require a vegetation management plan consistent with WCC 23.90.060(B)(2).~~

~~I. The administrator shall require a conditional use permit if the enlargement or expansion of single family residences by the addition of space to the exterior of the main structure or normal appurtenances is in excess of those allowances provided in subsection J of this section.~~

~~J. A structure that is being or has been used for a nonconforming use may be used for a different nonconforming use only upon the approval of a conditional use permit. In addition to the conditional use criteria of WCC 23.60.040, before approving a conditional use for a change in nonconforming use, the hearing examiner shall also find that:~~

- ~~1. No reasonable alternative conforming use is practical because of the configuration of the structure and/or the property;~~
- ~~2. The proposed use will be at least as consistent with the policies and provisions of the Act and this program and as compatible with the uses in the area as the preexisting use;~~
- ~~3. The use or activity is enlarged, intensified, increased or altered only to the minimum amount necessary to achieve the intended functional purpose;~~
- ~~4. The structure(s) associated with the nonconforming use shall not be expanded in a manner that increases the extent of the nonconformity including encroachment into areas, such as setbacks, and any critical areas and/or associated buffers established by Chapter 16.16 WCC, where new structures, development or use would not be allowed;~~

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5. ~~The vegetation conservation standards of WCC 23.90.060(B)(3) are met;~~
6. ~~The change in use, remodel or expansion will not create adverse impacts to shoreline ecological functions and/or processes; and~~
7. ~~Uses which are specifically prohibited or which would thwart the intent of the Act or this program shall not be authorized.~~
- K. ~~Nonconforming lots are those that have a building area of less than 2,500 square feet available for a single family residence and normal appurtenances that is unrestricted by setbacks or buffers from shorelines.~~
- L. ~~Where permitted according to shoreline areas designations (WCC Table 23.100.010), new single-family development on any legal lot in shoreline jurisdiction that is nonconforming with respect to the required shoreline buffer standards may be allowed without a shoreline variance when all of the following criteria are met:~~
 1. ~~The depth of the lot (the distance from the ordinary high water mark to the inside edge of the frontage setback) is equal to or less than the standard buffer as indicated in Chapter 16.16 WCC; and~~
 2. ~~The building area lying landward of the shoreline buffer and interior to required side yard setbacks is 2,500 square feet or less; provided, that consideration shall be given to view impacts and all single family residences approved under this section shall not extend waterward of the common line setback as measured in accordance with Appendix F. The building area means the entire area that will be disturbed to construct the home, normal appurtenances (except drainfields), and landscaping; and~~
 3. ~~The lot is not subject to landslide hazard areas, alluvial fan hazard areas, or riverine and coastal erosion hazard areas or associated buffers as provided in WCC 16.16.310; and~~
 4. ~~The nonconforming lot was created prior to August 8, 2008; and~~
 5. ~~Appropriate measures are taken to mitigate all adverse impacts, including but not limited to locating the residence in the least environmentally damaging location relative to the shoreline and any critical areas; and provided, that all administrative reductions to side yard and/or frontage setbacks are pursued, when doing so will not create a hazardous condition or a condition that is inconsistent with this program and WCC Title 20; and~~
 6. ~~There is no opportunity to consolidate lots under common ownership that will alleviate the nonconformity; and~~
 7. ~~The area between the structure and the shoreline and/or critical area shall comply with the vegetation conservation standards of WCC 23.90.060(B)(3); and~~
 8. ~~Development may not take place waterward of the ordinary high water mark; and~~
 9. ~~Facilities such as a conventional drainfield system may be allowed within critical areas or their buffers, except wetlands and buffers, outside of the building area specified above, subject to specific criteria in Chapter 16.16 WCC.~~
- M. ~~Redevelopment of nonconforming rights of way and associated transportation structures, such as railroad trestles, may be permitted for purposes of facilitating the development of public trails and/or public shoreline access; provided, that such redevelopment shall be otherwise consistent~~

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with the provisions of this program, including but not limited to the provisions for public access and no net loss of shoreline ecological functions and processes, except as provided for in subsections E and H of this section.

23.50.010 Nonconforming Uses.

A. The lawfully established use of any building, structure, land, or premises existing or authorized under a permit or approval issued prior to the effective date of initial adoption of this program (August 27, 1976) or any applicable amendment thereafter, but which does not conform to present use regulations due to subsequent changes to the master program, shall be considered legally nonconforming and may be continued, subject to the provisions of this section; provided, that agricultural activities shall conform to WCC Chapter 16.16, Article 8 (Conservation Program on Agricultural Lands).

B. The expansion, alteration, and/or intensification of a nonconforming use is prohibited.

C. An existing use designated as a shoreline conditional use under present use regulations that lawfully existed prior to the effective date of the initial adoption of this program (August 27, 1976) or any applicable amendment thereafter and that has not obtained a shoreline conditional use permit shall be considered a legal use and may be continued subject to the provisions of this section without obtaining a shoreline conditional use permit.

D. Other than agricultural uses complying with WCC 16.16.800, if a use is discontinued for a period of 12 consecutive months or more, then any subsequent use, if allowed, shall be consistent with the provisions of this program and the Act.

E. The change of a nonconforming use to another type of nonconforming use is prohibited. may only occur upon the approval of a shoreline conditional use permit. In addition to the shoreline conditional use criteria of WCC Title 22 (Land Use and Development), before approving a shoreline conditional use for a change in nonconforming use, the Hearing Examiner shall also find that:

— No reasonable alternative conforming use is practical because of the configuration of the structure and/or the property;

— The proposed use will be consistent with the policies and provisions of the Act and this program and as compatible with the uses in the area as the preexisting use;

— The vegetation conservation management standards of WCC 23.30.050 are met;

— The change in use or remodel will not create adverse impacts to shoreline ecological functions and/or processes; and

— Uses that are specifically prohibited or that would thwart the intent of the Act or this program shall not be authorized.

— Public Access is provided as required by this program.

— Vegetation screening and/or view protection is provided as required by this program.

Comment [P/C270]: P/C Motion to prohibit.
Carried 8-1.

Comment [P/C271]: P/C Motion to delete.
Carried 7-2.

23.50.01020 Nonconforming Structures.

A. A lawfully established structure existing or authorized under a permit or approval issued prior to the effective date of initial adoption of this program (August 27, 1976) or any applicable amendment thereafter, but is no longer fully consistent with present regulations due to subsequent changes to

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the master program, shall be considered legally nonconforming and may be continued, subject to the provisions of this section; provided that:

1. Shoreline stabilization structures shall conform to WCC 23.40.190 (Shoreline Stabilization).
2. When maintenance and repair of a nonconforming structure has lapsed such that the structure or activity area is not in a usable condition, the structure or activity shall be considered to be abandoned or derelict and may no longer be continued.
3. For structures where the ordinary high water mark establishes landward of the structure, this structure shall be considered to be abandoned or derelict and may no longer be continued.
4. Non-overwater nonconforming structures may be maintained, repaired, renovated, or remodeled to the extent that nonconformance with the standards and regulations of this program is not increased, provided that a nonconforming structure that is moved any distance must be brought into conformance with this program and the Act, except as provided in subsection (C) and (D) of this section;
5. Overwater nonconforming structures may be maintained or repaired to the extent that nonconformance with the standards and regulations of this program is not increased; provided that when replacement is the common method of repair, the replaced components shall meet the construction and materials standards of WCC 23.40.150 (Moorage Structures).

B. Nonconforming structures (including accessory structures) that are damaged or destroyed by fire, explosion, flood, or other casualty may be restored or replaced in kind; provided, that:

1. Intentional demolition or removal is not a casualty.
2. Damaged or destroyed nonconforming structures containing conforming uses that are located within a geologically hazardous area or frequently flooded area shall be reconstructed consistent with the requirements of WCC Chapter 16.16, Article 3 (Geologically Hazardous Areas) and Article 4 (Frequently Flooded Areas); provided, that the permit process is commenced within 18 months of the date of such damage; and the reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in this section.
3. Damaged or destroyed nonconforming structures containing nonconforming uses can be replaced in kind if:
 - a. There is no feasible alternative that allows for compliance with the provisions of this program;
 - b. The structure is reconstructed consistent with the requirements of WCC Chapter 16.16, Article 3 (Geologically Hazardous Areas) and Article 4 (Frequently Flooded Areas);
 - c. The permit process is commenced within 12 months of the date of such damage; and,
 - d. The reconstruction does not expand, enlarge, or otherwise increase the nonconformity.

C. Nonconforming structures that do not meet the criteria of subsection (A)(2) but are intentionally demolished or removed with a valid demolition permit may be replaced with the same bulk dimensions provided that:

1. The permit process is commenced within 12 months of the date of such demolition or removal; and

Comment [CES272]: Revised to remind folks that a demo permit is required; and clarify that this does not apply to unusable structures addressed in A.2.

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2. Such structures that are located within a geologically hazardous area or frequently flooded area shall be reconstructed consistent with the requirements of WCC Chapter 16.16, Article 3 (Geologically Hazardous Areas) and Article 4 (Frequently Flooded Areas).

D. Replacement of any nonconforming structures or buildings or portions thereof within the aquatic shoreline environment shall comply with program requirements for construction design and materials; provided, that replacement of existing wood pilings with chemically treated wood is allowed for maintenance purposes where use of a different material such as steel or concrete would result in unreasonable or unsafe structural complications; further provided, that where such replacement exceeds 20% of the existing pilings over a 10-year period, such pilings shall conform to the standard provisions of this section.

E. Other than for single-family residences and their appurtenances, nonconforming structures that are shall not be altered, expanded or enlarged, or expanded without must be brought into conformance with this program and the Act or obtain a variance unless such alteration, enlargement or expansion would bring the structure into conformance with this program and the Act; provided, that nonconforming structures with conforming uses may be enlarged or expanded within the existing building footprint as a shoreline conditional use pursuant to WCC Title 22 (Land Use and Development) 23.100.050(B)(1)(e) when the following criteria are met:-

1. The enlargement or expansion is within the existing building footprint;
2. The enlargement or expansion is in conformance with the bulk dimensional standards; and
3. Public access is provided and/or the shoreline environment is enhanced.

F. Single-family residences nonconforming to the shoreline buffer.

1. Enlargement or expansion of a primary single-family structure may be approved when either of the following are met:

- a. When the vertical expansion or enlargement is within the existing building footprint and is in conformance with the bulk dimensional standards; or
- b. When the enlargement or expansion meets all of the following.
 - i. The enlargement or expansion will not extend waterward of the building footprint of the existing primary structure or the enlargement or expansion is consistent with the constrained lot provisions in WCC 23.40.170 (Standards for Single-Family Residential Use on Constrained Lots).
 - ii. The enlargement or expansion is not within a critical area or critical area buffer in a manner inconsistent with this program.
 - iii. The enlargement or expansion is in conformance with the bulk dimensional standards.

2. The enlargement or expansion of single-family residences or normal appurtenances greater than the constrained lot provisions of WCC 23.40.170(C) may be approved once during the life of the structure (100 years); provided, that the following conditions are met:-

- a. The existing structure must be located landward of the ordinary high water mark.
- b. Building footprint enlargement or expansion:
 - i. Shall not increase the total building footprint by more than 500 square feet.
 - ii. Shall be landward or lateral of the existing footprint.

Comment [MD273]: Under WAC 173-27-080 variance only needed if increasing nonconformity.

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- iii. Shall occur on a previously impacted impervious surface.
- iv. Shall not occur waterward of the common line setback as described in WCC 23.40.020 (Shoreline Bulk Provisions).
- v. Shall be accompanied by enhancement of an area equivalent to the enlargement or expansion if the total building footprint increases by more than 250 square feet. If enhanced through planting, the Director shall require a vegetation management plan consistent with WCC 23.30.0540 (Vegetation Management).
- c. The property has not previously received a shoreline exemption under the provisions for a nonconforming or constrained lot.

G. Redevelopment of nonconforming rights-of-way and associated transportation structures, such as railroad trestles, may be permitted for purposes of facilitating the development of public trails and/or public shoreline access; provided, that such redevelopment shall be otherwise consistent with the provisions of this program, including but not limited to the provisions for public access and no net loss of shoreline ecological functions and processes, except as provided for in this section.

23.50.012030 Nonconforming Lots.

A lawfully established lot existing or authorized under a permit or approval issued prior to the effective date of initial adoption of this program (August 27, 1976) or any applicable amendment thereafter, but which does not conform to present lot standards, shall be considered a legally nonconforming lot and may be developed subject to the provisions of this program.

- ~~Where permitted by the shoreline areas designation (WCC Table 23.100.010), new single family development on any legal lot in shoreline jurisdiction that is nonconforming with respect to the required shoreline setback standards may be allowed without a shoreline variance when the following criteria are met:~~
- ~~— The depth of the lot (the distance from the ordinary high water mark to the inside edge of the frontage setback) is equal to or less than the standard buffer as indicated in Chapter 16.16 WCC;~~
- ~~— The building area lying landward of the shoreline buffer and interior to required side yard setbacks is 2,500 square feet or less. The building area means the entire area that will be disturbed to construct the home, normal appurtenances (except drainfields), and landscaping, including any lawn, turf, ornamental vegetation, or gardens located in the outer management zone of the buffer pursuant to WCC 23.30.060(B)(2);~~
- ~~— Consideration shall be given to view impacts. Any single family residences approved under this section shall not extend waterward of fifteen (15) feet landward of the OHWM, or the common line setback as measured in accordance with WCC 23.30.060(A)(2)(b), whichever is further landward.~~
- ~~— The lot is not subject to landslide hazard areas or riverine and coastal erosion hazard areas or associated buffers as defined in WCC 16.16.310;~~
- ~~— The nonconforming lot was created prior to the effective date of this program (August 8, 2008);~~
- ~~— Appropriate measures are taken to mitigate all adverse impacts, including but not limited to locating the residence in the least environmentally damaging location relative to the shoreline~~

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1 ~~and any critical areas, that all administrative reductions to side yard and/or frontage setbacks~~
2 ~~are pursued; and when doing so will not create a hazardous condition or a condition that is~~
3 ~~inconsistent with this program and WCC Title 20. The standard front yard setback may be~~
4 ~~reduced to 20 feet pursuant to WCC 20.80.230(2). The standard side yard setbacks may be~~
5 ~~reduced to 5 feet of the total required side yard setbacks on one side and the balance on the~~
6 ~~other side pursuant to WCC 23.90.130.B.4; provided, that if the side yard setback reductions~~
7 ~~pursuant WCC 23.90.130.B.4 are insufficient, both side yard setbacks may be reduced to 5 feet.~~
8 ~~— There is no opportunity to consolidate lots under common ownership that will alleviate the~~
9 ~~nonconformity;~~
10 ~~— The area between the structure and the shoreline and/or critical area shall comply with the~~
11 ~~vegetation conservation standards of WCC 23. 30.050(B);~~
12 ~~— Development may not take place waterward of the ordinary high water mark; and~~
13 ~~— Facilities such as a conventional drainfield system may be allowed within critical areas or their~~
14 ~~buffers, except wetlands and buffers, outside of the building area specified above, subject to~~
15 ~~specific criteria in Chapter 16.16 WCC.~~

Comment [RCE274]: Moved to 23.40.170(C).

23.50.080 Property rights.

Comment [AP275]: Moved to Chapter 23.10

- 16 **23.50.080 Property rights.**
17 A. ~~Decisions on shoreline permits and/or approvals shall recognize all relevant constitutional and other~~
18 ~~legal limitations on the regulation of private property. Findings shall assure that conditions imposed~~
19 ~~relate to the governmental authority and responsibility to protect the public health, safety, and~~
20 ~~welfare, are consistent with the purposes of the Act, and are roughly proportional to the expected~~
21 ~~impact.~~
22 B. ~~This program does not alter existing law on access to or trespass on private property and does not~~
23 ~~give the general public any right to enter private property without the owner's permission.~~
24 C. ~~Consistent with Whatcom County's high standard of staff conduct, county staff observe all~~
25 ~~applicable federal and state laws regarding entry onto privately owned property.~~

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Chapter 23.60 Shoreline Permits and Exemptions

Comment [MD276]: Unless otherwise noted, the contents of this chapter have been moved to T-22.

23.60.005 General requirements.

1. To be authorized, all uses and developments shall be planned and carried out in a manner that is consistent with this program and the policy of the Act as required by RCW 90.58.140(1), regardless of whether a shoreline permit, statement of exemption, shoreline variance, or shoreline conditional use permit is required.

Comment [RCE277]: Moved to applicability section.

23.60.010 Substantial development permits criteria.

- A. A substantial development permit shall be required for all proposed use and development of shorelines unless the proposal is specifically exempt pursuant to WCC 23.60.022.
- B. In order to be approved, the decision maker must find that the proposal is consistent with the following criteria:
 1. All regulations of this program appropriate to the shoreline designation and the type of use or development proposed shall be met, except those bulk and dimensional standards that have been modified by approval of a shoreline variance under WCC 23.60.030.
 2. All policies of this program appropriate to the shoreline area designation and the type of use or development activity proposed shall be considered and substantial compliance demonstrated.
 3. For projects located on shorelines of statewide significance, the policies of Chapter 23.40 WCC shall also be adhered to.
- C. In the granting of all shoreline substantial development permits, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if shoreline substantial development permits were granted for other developments in the area where similar circumstances exist, the sum of the permitted actions should also remain consistent with the policy of RCW 90.58.020 and should not produce significant adverse effects to the shoreline ecological functions and processes or other users.

Comment [RE278]: Moved to ecological protection and critical areas

23.60.020 Exemptions from Shoreline Substantial Development Permits process.

A. 23.60.021 Application and interpretation.

1. An exemption from the substantial development permit process is not an exemption from compliance with the Act, or this program, or from any other regulatory requirements. To be authorized, all uses and developments must be consistent with the policies and regulatory provisions of this program and the Act. A statement of exemption shall be obtained for exempt activities consistent with the provisions of WCC 23.60.020.
2. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemptions from the substantial development permit process.
3. The burden of proof that a development, or use is exempt is on the applicant/proponent of the exempt development action.

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4. If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire project.
5. A development or use that is listed as a conditional use pursuant to this program or is an unlisted use, must obtain a conditional use permit even if the development or use does not require a substantial development permit.
6. When a development or use is proposed that does not comply with the bulk, dimensional and/or performance standards of the program, such development or use shall only be authorized by approval of a shoreline variance even if the development or use does not require a substantial development permit.
7. All permits or statements of exemption issued for development or use within shoreline jurisdiction shall include written findings prepared by the administrator, including compliance with bulk and dimensional standards and policies and regulations of this program. The administrator may attach conditions to the approval of exempt developments and/or uses as necessary to assure consistency of the project with the Act and the program.

B. 23.60.022 Exemptions listed.

1. The following activities shall be considered exempt from the requirement to obtain a shoreline substantial development permit. A statement of exemption, as provided for in WCC 23.60.023 of this program shall be required for those activities listed in WCC 23.60.023(B) and (C).
 - a. Any development of which the total cost or fair market value, whichever is higher, does not exceed \$5,718, or as amended by the state office of financial management, if such development does not materially interfere with the normal public use of the water or shorelines of the state. For the purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state as defined in RCW 90.58.030(2)(c). The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.
 - b. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. Normal maintenance includes those usual acts to prevent a decline, lapse or cessation from a lawfully established condition. Normal repair means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair causes substantial adverse effects to the shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or the environment.
 - c. Construction of the normal protective bulkhead common to single family residences. A normal protective bulkhead includes those structural and nonstructural developments

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installed at or near, and parallel to, the ordinary high water mark for the sole purpose of protecting an existing single family residence and appurtenant structures from loss or damage by erosion. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used for backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Washington Department of Fish and Wildlife.

- d. ~~Emergency construction necessary to protect property from damage by the elements. An emergency is an unanticipated and imminent threat to public health, safety or the environment that requires immediate action within a time too short to allow full compliance with this program. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit that would have been required, absent an emergency, pursuant to Chapter 90.58 RCW, Chapter 173-27 WAC or this program, shall be obtained. All emergency construction shall be consistent with the policies of Chapter 90.58 RCW and this program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.~~
- e. ~~Construction and practices normal or necessary for farming, irrigation, and ranching activities, including agricultural service roads and utilities, construction of a barn or similar agricultural structure, and the construction and maintenance of irrigation structures including, but not limited to, head gates, pumping facilities, and irrigation channels; provided, that this exemption shall not apply to agricultural activities proposed on land not in agricultural use on December 17, 2003; and further provided, that a feedlot of any size, all processing plants, other activities of a commercial nature, or alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.~~
- f. ~~Construction or modification, by or under the authority of the Coast Guard or a designated port management authority, of navigational aids such as channel markers and anchor buoys.~~

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- g. Construction on shorelands by an owner, lessee, or contract purchaser of a single family residence for their own use or for the use of their family, which residence does not exceed a height of 35 feet above average grade level and that meets all requirements of the state agency or local government having jurisdiction thereof. Single family residence means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance as defined in WCC 23.110.010.
- h. Construction of a dock, including a shared moorage, designed for pleasure craft only, for the private noncommercial use of the owners, lessee, or contract purchaser of a single family or multifamily residence. A dock is a landing and moorage facility for watercraft and does not include recreational decks, storage facilities or other appurtenances. The private dock exemption applies if either:
 - i. In saltwater, the fair market value of the dock does not exceed \$2,500;
 - ii. In fresh waters the fair market value of the dock does not exceed \$10,000, but if subsequent construction having a fair market value exceeding \$2,500 occurs within five years of the completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this program. For the purpose of this section, saltwater shall include the tidally influenced marine and estuarine water areas of the state including the Strait of Georgia, local marine waters and all associated bays, inlets and estuaries.
- i. Operation, maintenance, or construction of canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters including return flow and artificially stored ground water for the irrigation of lands; provided, that this exemption shall not apply to construction of new irrigation facilities proposed after December 17, 2003.
- j. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with normal public use of the surface of the water.
- k. Operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on June 4, 1975, that were created, developed or utilized, primarily as a part of an agricultural drainage or diking system.
- l. Any project with a certification from the governor pursuant to Chapter 80.50 RCW.
- m. Site exploration and investigation activities that are prerequisite to preparation of a development application for authorization under this program, if:
 - i. The activity does not interfere with the normal public use of surface waters;
 - ii. The activity will have no significant adverse impact on the environment including but not limited to fish, wildlife, fish or wildlife habitat, water quality and aesthetic values;
 - iii. The activity does not involve the installation of any structure and, upon completion of the activity, the vegetation and land configuration of the site are restored to conditions existing before the activity;

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- iv. ~~A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the administrator to ensure that the site is restored to preexisting conditions; and~~
- v. ~~The activity is not subject to the permit requirements of RCW 90.58.550.~~
- n. ~~The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, through the use of an herbicide or other treatment methods applicable to weed control that is recommended by a final environmental impact statement published by the Department of Agriculture or the Department of Ecology jointly with other state agencies under Chapter 43.21C RCW.~~
- o. ~~Watershed restoration projects as defined in Chapter 23.110 WCC and by RCW 89.08.460. The administrator shall review the projects for consistency with the program in an expeditious manner and shall issue its decision along with any conditions within 45 days of receiving a complete application form from the applicant/proponent. No fee may be charged for accepting and processing applications for watershed restoration projects as defined in Chapter 23.110 WCC.~~
- p. ~~A public or private project, the primary purpose of which is to improve fish or wildlife habitat or fish passage, when all of the following apply:~~
 - i. ~~The project has been approved in writing by the Department of Fish and Wildlife as necessary for the improvement of the habitat or passage and appropriately designed and sited to accomplish the intended purpose;~~
 - ii. ~~The project received hydraulic project approval by the Department of Fish and Wildlife pursuant to Chapter 77.55 RCW; and~~
 - iii. ~~The administrator has determined that the project is consistent with this program. The administrator shall make such determination in a timely manner and provide it by letter to the project proponent.~~

~~C. 23.60.023 Statements of Exemption.~~

1. ~~The administrator is hereby authorized to grant or deny requests for statements of exemption from the shoreline substantial development permit requirement for uses and developments within shorelines that are specifically listed in WCC 23.60.022. Such statements shall be applied for on forms provided by the administrator. The statement shall be in writing and shall indicate the specific exemption of this program that is being applied to the development, and shall provide a summary of the administrator's analysis of the consistency of the project with this program and the Act. As appropriate, such statements of exemption shall contain conditions and/or mitigating measures of approval to achieve consistency and compliance with the provisions of the program and Act. A denial of an exemption shall be in writing and shall identify the reason(s) for the denial. The administrator's actions on the issuance of a statement of exemption or a denial are subject to appeal pursuant to WCC 23.60.150.~~
2. ~~Exempt activities related to any of the following shall not be conducted until a statement of exemption has been obtained from the administrator: dredging, flood control works and instream structures, development within an archaeological or historic site, clearing and ground~~

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disturbing activities such as landfill or excavation, dock, shore stabilization, freestanding signs, or any development within an aquatic or natural shoreline designation; provided, that no separate written statement of exemption is required for the construction of a single family residence when a county building permit application has been reviewed and approved by the administrator; provided further, that no statement of exemption is required for emergency development pursuant to WAC 173-27-040(2)(d).

3. ~~No statement of exemption shall be required for other uses or developments exempt pursuant to WCC 23.60.022 unless the administrator has cause to believe a substantial question exists as to qualifications of the specific use or development for the exemption or the administrator determines there is a likelihood of adverse impacts to shoreline ecological functions.~~
4. ~~Whether or not a written statement of exemption is issued, all permits issued within the area of shorelines shall include a record of review actions prepared by the administrator, including compliance with bulk and dimensional standards and policies and regulations of this program. The administrator may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the Act and this program.~~
5. ~~A notice of decision for shoreline statements of exemption shall be provided to the applicant/proponent and any party of record. Such notices shall also be filed with the Department of Ecology, pursuant to the requirements of WAC 173-27-050 when the project is subject to one or more of the following federal permitting requirements:~~
 - a. ~~A U.S. Army Corps of Engineers Section 10 permit under the Rivers and Harbors Act of 1899. (The provisions of Section 10 of the Rivers and Harbors Act generally apply to any project occurring on or over navigable waters. Specific applicability information should be obtained from the Corps of Engineers.); or~~
 - b. ~~A Section 404 permit under the Federal Water Pollution Control Act of 1972. (The provisions of Section 404 of the Federal Water Pollution Control Act generally apply to any project that may involve discharge of dredge or fill material to any water or wetland area. Specific applicability information should be obtained from the Corps of Engineers.)~~
6. ~~Whenever the exempt activity also requires a U.S. Army Corps of Engineers Section 10 permit under the Rivers and Harbors Act of 1899 or a Section 404 permit under the Federal Water Pollution Control Act of 1972, a copy of the written statement of exemption shall be sent to the applicant/proponent and Ecology pursuant to WAC 173-27-050.~~

23.60.030 Variance permit criteria.

- A. ~~The purpose of a variance is to grant relief to specific bulk or dimensional requirements set forth in this program and any associated standards appended to this program such as critical areas buffer requirements where there are extraordinary or unique circumstances relating to the property such that the strict implementation of this program would impose unnecessary hardships on the applicant/proponent or thwart the policy set forth in RCW 90.58.020. Use restrictions may not be varied.~~

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- ~~B. Variances will be granted in any circumstance where denial would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.~~
- ~~C. Proposals that would otherwise qualify as a reasonable use pursuant to WCC 16.16.270(A) shall require a shoreline variance and shall meet the variance criteria in this section.~~
- ~~D. Variances may be authorized, provided the applicant/proponent can demonstrate all of the following:~~
 - ~~1. That the strict application of the bulk or dimensional criteria set forth in this program precludes or significantly interferes with reasonable permitted use of the property;~~
 - ~~2. That the hardship described in subsection A of this section is specifically related to the property, and is the result of conditions such as irregular lot shape, size, or natural features and the application of this program, and not, for example, from deed restrictions or the applicant's/proponent's own actions;~~
 - ~~3. That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects on adjacent properties or the shoreline environment;~~
 - ~~4. That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief;~~
 - ~~5. That the public interest will suffer no substantial detrimental effect;~~
 - ~~6. That the public rights of navigation and use of the shorelines will not be materially interfered with by the granting of the variance; and~~
 - ~~7. Mitigation is provided to offset unavoidable adverse impacts caused by the proposed development or use.~~
- ~~E. Variance permits for development and/or uses that will be located waterward of the ordinary high water mark (OHWM), as defined herein, or within any wetland as defined herein, may be authorized, provided the applicant can demonstrate all of the following:~~
 - ~~1. That the strict application of the bulk, dimensional or performance standards set forth in this program precludes all reasonable use of the property; and~~
 - ~~2. That the proposal is consistent with the criteria established under subsections (D)(1) through (7) of this section; and~~
 - ~~3. That the public rights of navigation and use of the shorelines will not be adversely affected.~~
- ~~Other factors that may be considered in the review of variance requests include the conservation of valuable natural resources and the protection of views from nearby roads, surrounding properties and public areas; provided, the criteria of subsection D of this section are first met. In addition, variance requests based on the applicant's/proponent's desire to enhance the view from the subject development may be granted;~~
- ~~where there are no likely detrimental effects to existing or future users, other features, or shoreline ecological functions and/or processes, and~~
- ~~where reasonable alternatives of equal or greater consistency with this program are not available.~~
- ~~4. In platted residential areas, variances shall not be granted that allow a greater height or lesser shore setback than what is typical for the immediate block or area.~~

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- F. In the granting of all variances, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if variances were granted to other developments in the area where similar circumstances exist, the total of the variances should also remain consistent with the policy of RCW 90.58.020 and should not produce significant adverse effects to the shoreline ecological functions and processes or other users.
- G. Permits and/or variances applied for or approved under other county codes such as WCC Title 20 or 21 shall not be construed as shoreline permits under this program.

23.60.040 Conditional use permits criteria.

- A. The purpose of a conditional use permit is to allow greater flexibility in administering the use regulations of this program in a manner consistent with the policy of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by the county or the Department of Ecology to control any undesirable effects of the proposed use.
- B. Uses specifically classified or set forth in this program as conditional uses and unlisted uses may be authorized, provided the applicant/proponent can demonstrate all of the following:
1. That the proposed use will be consistent with the policy of RCW 90.58.020 and this program.
 2. That the proposed use will not interfere with normal public use of public shorelines.
 3. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area.
 4. That the proposed use will not cause adverse effects to the shoreline environment in which it is to be located.
 5. That the public interest suffers no substantial detrimental effect.
- C. Other uses not specifically classified or set forth in this program, including the expansion or resumption of a nonconforming use pursuant to WCC 23.50.070, may be authorized as conditional uses, provided the applicant/proponent can demonstrate that the proposal will satisfy the criteria set forth in subsection B of this section, and that the use clearly requires a specific site location on the shoreline not provided for under the program, and extraordinary circumstances preclude reasonable use of the property in a manner consistent with the use regulations of this program. Uses that are prohibited cannot be authorized by a conditional use permit.
- D. In the granting of all conditional use permits, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if conditional use permits were granted for other developments in the area where similar circumstances exist, the sum of the conditional uses and their impacts should also remain consistent with the policy of RCW 90.58.020 and should not produce a significant adverse effect to the shoreline ecological functions and processes or other users.
- E. Permits and/or variances applied for or approved under county zoning or subdivision code requirements shall not be construed as shoreline variances under this program.

23.60.050 Minimum application requirements.

Where other approvals or permits are required for a use or development that does not require an open record hearing, such approvals or permits shall not be granted until a shoreline approval or permit is

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~~granted. All shoreline approvals and permits shall include written findings prepared by the administrator documenting compliance with bulk and dimensional standards and other policies and regulations of this program.~~

~~A complete application for a substantial development, conditional use, or variance permit shall contain all materials required in the Department's administrative manual; provided, that the administrator may vary or waive these requirements as provided in the manual and may vary or waive these requirements on a case-by-case basis. The administrator may require additional specific information depending on the nature of the proposal and the presence of sensitive ecological features or issues related to compliance with other county requirements.~~

~~23.60.060 Pre-application conference.~~

~~A. Prior to filing a permit application for a shoreline substantial development permit, variance or conditional use permit decision,~~

~~B. The applicant shall contact the County to schedule a pre-application conference, which shall be held prior to filing the application; provided, that such meetings shall not be required for development activities associated with shoreline restoration projects, agriculture, commercial forestry, or the construction of a single-family residence.~~

~~23.60.070 Fees.~~

~~B. Required fees for all shoreline substantial development permits, shoreline conditional use permits, shoreline variances, statements of exemption, appeals, pre-application conferences and other required reviews and/or approvals shall be paid to the county at the time of application in accordance with the Whatcom County Unified Fee Schedule in effect at that time and Chapter 22.05 WCC.~~

~~C. When any given project requires more than one of the following permits or applications, the total amount of fees shall be reduced pursuant to WCC 22.25.030:~~

- ~~1. Preliminary plat application.~~
- ~~2. Rezone application.~~
- ~~3. Major development permit.~~
- ~~4. Planned unit development.~~
- ~~5. Binding site plan.~~

~~D. When any project requires a shoreline conditional use permit or shoreline variance in addition to a shoreline substantial development permit, the fees for the conditional use or variance shall be reduced by half.~~

~~E. In the event that actions of an applicant result in the repetition of the review, inspections and other steps in the approval process, those items or steps repeated shall be charged to and paid by the applicant prior to any further processing of the application by the county. The cost shall be in accordance with the adopted fee schedule.~~

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- F. If an application is withdrawn within 30 days of submittal, and no work has commenced at the site of the proposal for which the application was made, a refund of not more than 50 percent of the shoreline fees paid may be granted by the administrator. This amount may be reduced where staff time, public notice and other costs exceed 50 percent of the fees paid.

~~23.60.080 Notice of application.~~

- B. Upon receipt of a completed shoreline substantial development permit, shoreline variance, or shoreline conditional use permit application the County shall issue a notice of application for a proposed land use action in the manner set forth in WCC 22.05.070.
- C. The rights of treaty tribes to resources within their usual and accustomed areas shall be accommodated through the notification and comment provisions of the permit review process. Tribal treaty rights may be addressed through specific permit conditions. Direct coordination between tribes and the applicant/proponent is encouraged.

Comment [RCE279]: Moved to 23.05.040

~~23.60.090 Permit application review.~~

- B. All shoreline permit applications, exemptions, or other approvals shall be subject to the provisions of this program that are in effect at the time of application.
- C. To facilitate review of an application the decision maker shall consider any or all of the following:
1. The application and attached information;
 2. The SEPA checklist, threshold determination, environmental impact statement, or other environmental studies and/or documentation;
 3. Written comments from interested persons;
 4. Information and recommendations from any public agency and from the administrator in cases where the administrator is not the decision maker;
 5. Information or comment presented at a public hearing, if held, on the application; and
 6. The policy and provisions of the Act and this program including the criteria enumerated in WCC 23.60.010, 23.60.030 and 23.60.040, as applicable.
- D. The decision maker shall process project permit applications for shoreline substantial development permits, shoreline variance, and shoreline conditional use permits in compliance with the provisions of Chapter 22.05 WCC.
- E. The decision maker shall process project permit applications for shoreline statements of exemption in accordance with the provisions of Chapter 22.05 WCC and WCC 23.60.023(A).
- F. Any application for a shoreline permit or approval that remains inactive for a period of 180 days shall expire and a new application and repayment of fees shall be required to reactivate the proposal; provided, that the administrator may grant a single 90-day extension for good cause. Delays such as those caused by public notice requirements, State Environmental Policy Act review, litigation directly related to the proposal, or changes in government regulations shall not be considered as part of the inactive period.
- If a shoreline permit is denied, no reapplication for the same or essentially similar development may be made until one year from the date of denial.

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23.60.100 Consolidated Permit Review.

- A. Whenever an application for a project permit under the program requires a project permit or approval under another County permit authority, such as zoning or subdivision, the shoreline project permit application, time requirements, and notice provisions for processing the shoreline permit shall apply, in addition to those of other regulatory programs.
- The provisions of Chapter 22.05 WCC shall apply to the consolidated application, review, and approval of applications that require an open record hearing.
- B. Any shoreline use or development that is subject to other approvals or permits that requires an open record hearing under another permit authority, such as zoning or subdivision, shall be subject to consolidated review and the decision maker designated for the open record hearing shall be the decision maker for the consolidated review.

23.60.110 State Environmental Policy Act (SEPA) compliance.

- A. Whenever an application for shoreline substantial development permit, shoreline variance, shoreline conditional use permit, or statement of exemption is subject to the rules and regulations of SEPA (Chapter 43.21C RCW), the review requirements of SEPA, including time limitations, shall apply, where applicable.
- B. Applications for shoreline permit(s) or approval(s) that are not categorically exempt under SEPA shall be subject to environmental review by the responsible official of Whatcom County pursuant to the State Environmental Policy Act (Chapter 197-11 WAC).
- C. As part of SEPA review, the Responsible Official may require additional information regarding the proposed development in accordance with Chapter 197-11 WAC.
- D. Failure of the applicant/proponent to submit sufficient information for a threshold determination to be made shall be grounds for the Responsible Official to determine the application incomplete.

Comment [RCE280]: Covered by WCC 16.08

23.60.120 Burden of proof.

Permit applicants/proponents have the burden of proving that the proposed development is consistent with the criteria set forth in the Act and this program.

Comment [CES281]: Moved to Permit application review

23.60.130 Public Hearings.

- A. The administrator shall determine whether an application requires a public hearing pursuant to the criteria below no later than 15 days after the minimum public comment period provided by WCC 23.60.080. An open record public hearing shall be required for all of the following:
1. The proposal has a cost or market value in excess of \$100,000 except for single-family residences, agriculture, commercial forestry, and ecological restoration projects; or
 2. The proposal would result in development of an area larger than five acres; or
 3. The proposal is a new or expanded marina, pier, aquaculture structure, any building over 35 feet high, mine, dam, stream diversion, landfill; or
 4. The administrator has reason to believe the proposal would be controversial based on public response to the notice of receipt of application and other information; or

Comment [CES282]: Moved/covered by Title 22 now

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5. The proposal is determined to have a significant adverse impact on the environment and an environmental impact statement is required in accordance with the State Environmental Policy Act; or
6. The proposal requires a variance and/or conditional use approval pursuant to this program; or
7. The use or development requires an open record public hearing for other Whatcom County approvals or permits.

B. An open record public hearing on shoreline permit applications shall be held in accordance with the provisions of Chapter 22.05 WCC, unless a continuance is granted pursuant to the rules and procedures of the Hearing Examiner or other hearing body and subject to time requirements for compliance with the State Environmental Policy Act.

C. Repealed by Ord. 2018-032.

D. Repealed by Ord. 2018-032.

E. Public hearing requirements for permit appeals shall be processed according to WCC 23.60.150.

23.60.140 Permit conditions.

In granting, revising, or extending a shoreline permit, the decision maker may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other elements of the proposed development deemed necessary to assure that the development will be consistent with the policy and provisions of the Act and this program as well as the supplemental authority provided in Chapter 43.21C RCW as applicable. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to require monitoring with future review or reevaluation to assure conformance with the Act and this program. If the monitoring plan is not implemented, the permittee may be found to be noncompliant and the permit may be rescinded in accordance with WCC 23.60.180.

23.60.XXX Filing with Department of Ecology

- After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes, the County will hand deliver or mail or hand deliver the permit using return receipt requested mail to the Department of Ecology regional office.
- Projectsposals that require both Shoreline Conditional Use Permits and or Variances shall be hand delivered or mailed simultaneously with any shoreline permit for the project.
- The permit and documentation of final local decision will be mailed together the following information:
 - A copy of the complete application;
 - Findings and conclusions that establish the basis for the decision, including but not limited to identification of shoreline environment designation(s), applicable program policies and regulations, and the consistency of the project with appropriate review criteria for the type of permit(s);
 - The final decision of the local government;
 - A completed permit data sheet (WAC Reference); and

Comment [CES283]: Moved to Permit application review.

Comment [CES284]: Moved to Ch. 22.07

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- ~~— Where applicable, local government shall also file the applicable documents required by SEPA, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under Chapter 43.21C RCW.~~
- ~~— When the project has been modified in the course of the local review process, plans or text shall be provided that clearly indicate the final approved plan.~~
- ~~— Upon approval of a revision, the decision maker shall file a copy of the revised site plan and a detailed description of the authorized changes to the original permit with the Department of Ecology together with a final ruling and findings supporting the decision based on the requirements of this section. In addition, the decision maker shall notify parties of record of the action.~~

23.60.150 Notice of Decision, Reconsideration and Appeal.

Comment [CES285]: Moved to T-22

- ~~— A notice of decision for action on a shoreline substantial development permit, shoreline variance, or shoreline conditional use permit shall be provided to the applicant/proponent and any party of record in accordance with the review procedures of Chapter 22.05 WCC, and at least 10 days prior to filing such decisions with the Department of Ecology pursuant to WAC 173-27-130. Decisions filed with the Department of Ecology shall contain the following information:~~
- ~~— After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes, the County will mail or hand deliver the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General.~~
- ~~— Projects that require both Conditional Use Permits and or Variances shall be mailed simultaneously with any Substantial Development Permits/shoreline permit for the project.~~
- ~~— The permit and documentation of final local decision will be mailed together the following information:~~
 - ~~2. A copy of the complete application;~~
 - ~~3. Findings and conclusions that establish the basis for the decision including but not limited to identification of shoreline environment designation(s), applicable program policies and regulations and the consistency of the project with appropriate review criteria for the type of permit(s);~~
 - ~~4. The final decision of the local government;~~
 - ~~5. A completed permit data sheet (see Appendix A of this title); and~~
 - ~~6. Where applicable, local government shall also file the applicable documents required by SEPA, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under Chapter 43.21C RCW.~~
 - ~~7. When the project has been modified in the course of the local review process, plans or text shall be provided that clearly indicate the final approved plan.~~
- ~~A. Notice of decision for shoreline statements of exemption shall comply with WCC 22.05.110(1) and 23.60.023(E).~~
- ~~— Any person with standing may appeal any order, final permit decision, or final administrative determination made by the director or designee in the administration of this program.~~

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~~Administrative Appeal Procedures.~~

~~Administrative appeals are processed in accordance with WCC 22.05.160.~~

~~After the issuance of the appeal determination, a party with standing may Appeals to the Shorelines Hearings Board of a decision on a shoreline substantial development permit, shoreline variance, or shoreline conditional use permit may be filed by the applicant/proponent or any aggrieved party pursuant to RCW 90.58.180 within 21 days of the “date of filing,” as defined in this program and RCW 90.58.140(6). The appeal to the Shorelines Hearing Board shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

~~Appeals of a decision of the Department of Ecology shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

- B. This program shall only establish standing for parties of record for shoreline substantial development permits, shoreline variances, or shoreline conditional use permits. Standing as a party of record is not established by this program for exempt actions pursuant to WCC 23.60.022; provided, that in such cases standing may be established through an associated permit process that provides for public notice and provisions for parties of record.
- A. The applicant/proponent or any party of record may request reconsideration of any final action by the decision maker within 10 days of notice of the decision. Such requests shall be filed on forms supplied by the county. Grounds for reconsideration must be based upon the content of the written decision. The decision maker is not required to provide a written response or modify his/her original decision. He/she may initiate such action as he/she deems appropriate. The procedure of reconsideration shall not preempt or extend the appeal period for a permit or affect the date of filing with the Department of Ecology, unless the applicant/proponent requests the abeyance of said permit appeal period in writing within 10 days of a final action.
- B. Appeals to the Shorelines Hearings Board of a decision on a shoreline substantial development permit, shoreline variance or shoreline conditional use permit may be filed by the applicant/proponent or any aggrieved party pursuant to RCW 90.58.180 within 21 days of filing the final decision by Whatcom County with the Department of Ecology.
- C. Whatcom County shall consider an appeal of a decision on a shoreline substantial development permit, shoreline variance or shoreline conditional use only when the applicant/proponent waives his/her right to a single appeal to the Shorelines Hearings Board. Such waivers shall be filed with the county in writing concurrent with a notice of appeal within 10 days of a final action. When an applicant/proponent has waived his/her right to a single appeal, such appeals shall be processed in accordance with the appeal procedures of subsection H of this section and shall be an open record hearing before the hearing examiner.
- D. Any order, requirement or administrative permit decision, or determination by the administrator based on a provision of this program, except a shoreline substantial development permit, may be the subject of an appeal to the office of the hearing examiner by any aggrieved person. Such appeals shall be processed in accordance with the appeal procedures of subsection H of this section and shall be an open record hearing before the hearing examiner.
- E. Appeal Procedures:

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1. Appeals shall be filed on forms supplied by the county within 10 calendar days of the issuance of a substantial development permit, shoreline variance or shoreline conditional use permit and within 20 calendar days of any other action of the administrator being appealed.
2. A public hearing on the appeal shall be held within 45 working days following receipt of the application for appeal.
3. Legal notice of the public hearing shall be made by mailing notice of time, date, and location of the hearing to the appellant, any parties of record, the Washington Department of Ecology, and the administrator at least 15 days prior to the hearing.
4. A decision by the hearing examiner shall be mailed within 10 working days of the public hearing to all parties of record unless otherwise mutually agreed to by all parties to the appeal.
5. Any party of record may request a closed record review of the hearing examiner's decision issued under subsection (H)(4) of this section by the county council. Such an appeal shall be filed with the county council on forms supplied by the county within 10 calendar days of the written decision. If appeal is made to the county council, notice of appeal shall be provided to all parties of record at least 15 days prior to consideration by the county council. The council shall meet to review the hearing examiner's decision within 21 days of transmittal thereof, at which time it may approve or disapprove the application, or remand the matter to the hearing examiner.
6. The time period for appeal to the Shorelines Hearings Board shall begin after the decision maker has filed the final county decision with the Department of Ecology.

23.60.160 Initiation of development.

- Development pursuant to a shoreline substantial development permit, shoreline variance, or conditional use permit shall not begin and shall not be authorized until 21 days after the “date of filing” or until all review proceedings before the Shorelines Hearings Board have terminated.

Date of Filing.

2. “Date of filing” of a substantial development permit is the date of actual receipt of the decision by the Department of Ecology.
3. The “date of filing” for a shoreline variance or shoreline conditional use permit shall mean the date the permit decision rendered by the Department of Ecology is transmitted by the department to the county and the applicant/proponent.

23.60.170 Revisions.

- A. A revision is required whenever the applicant/proponent proposes substantive changes to the design, terms, or conditions of a project from that which is approved in the permit and/or statement of exemption. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, this program, or the Act. Changes that are not substantive in effect do not require a revision.
- B. An application for a revision to a shoreline permit shall be submitted to the administrator ~~director~~. The application shall include detailed plans and text describing the proposed changes. The County decision maker that approved the original permit may approve the request upon a finding that the

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proposed changes are within the scope and intent of the original approval, and are consistent with this program and the Act.

C. “Within the scope and intent of the original approval” means all of the following:

1. No additional over-water construction is involved except that a pier, dock, or floating structure may be increased by 500 square feet or 10 percent from the provisions of the original permit, whichever is less over that approved under the original approval;
2. Ground area coverage and/or height may be increased a maximum of 10 percent over that approved under the original approval; provided, that the revised approval does not authorize development to exceed the height, impervious surface, setbacks, or any other requirements of this program except as authorized under a variance granted for the original development;
~~— The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of the applicable master program except as authorized under a variance granted as the original permit or a part thereof;~~
3. Additional or revised mitigation and/or landscaping is consistent with any conditions attached to the original approval and with this program;
4. The use authorized pursuant to the original approval is not changed; and
5. The revision will not cause adverse environmental impacts beyond those originally authorized in the approval.

~~— Revisions to shoreline permits and statements of exemption may be authorized after the original authorization has expired. Revisions made after the expiration of the original approval shall be limited to changes that are consistent with this program and that would not require a permit under this program. If the proposed change is a substantial development as defined by this program, then a new permit is required.~~

D. The provisions of this subsection shall not be used to extend the time requirements or to authorize substantial development beyond the time limits or scope of the original approval.

E. A new permit shall be required if the proposed revision and any previously approved revisions in combination would constitute development beyond the scope and intent of the original approval as set forth in subsection C of this section.

F. ~~Upon approval of a revision, the decision maker shall file a copy of the revised site plan and a detailed description of the authorized changes to the original permit with the Department of Ecology together with a final ruling and findings supporting the decision based on the requirements of this section. In addition, the decision maker shall notify parties of record of the action.~~

~~— If the proposed revision is to a development for which a shoreline conditional use or variance was issued, the decision maker shall submit the revision to the Department of Ecology for approval with conditions or denial, and shall indicate that the revision is being submitted under the requirements of this subsection.~~

~~— Under the requirements of WAC 173-27-110(6), the Department shall render and transmit to the decision maker and the applicant/proponent its final decision within 15 days of the date of the Department’s receipt of the submittal from the decision maker. The decision maker shall notify parties on record of the Department’s final decision.~~

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~~G. Appeals of a decision of the Department shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

~~23.60.190 Rescission and modification.~~

- A. Any shoreline permit granted pursuant to this program may be rescinded or modified upon a finding by the Hearing Examiner that the permittee or his/her successors in interest have not complied with conditions attached thereto. If the results of a monitoring plan show a development to be out of compliance with specific performance standards, such results may be the basis for findings of noncompliance.
- B. The Administrator shall initiate rescission or modification proceedings by issuing written notice of noncompliance to the permittee or his/her successors and notifying parties of record at the original address provided in application review files.
- C. The Hearing Examiner shall hold a public hearing no sooner than 15 days following such issuance of notice, unless the applicant/proponent files notice of intent to comply and the Administrator grants a specific schedule for compliance. If compliance is not achieved, the Administrator shall schedule a public hearing before the Hearing Examiner. Upon considering written and oral testimony taken at the hearing, the Hearing Examiner shall make a decision in accordance with the above procedure for shoreline permits.
- D. These provisions do not limit the Administrator, the Prosecuting Attorney, the Department of Ecology or the Attorney General from administrative, civil, injunctive, declaratory or other remedies provided by law, or from abatement or other remedies.

~~23.60.190 Expiration.~~

- A. The following time requirements shall apply to all substantial development permits and to any development authorized pursuant to a variance, conditional use permit, or statement of exemption:
 - 1. ~~Construction shall be commenced__or, where no construction is involved, the use or activity shall be commenced__within two years of the effective date of a shoreline permit or exemption or the permit shall expire; provided, that the Hearing Examiner or Administrator, as appropriate, may authorize a single extension for a period of not more than one year based on a showing of good cause if a request for extension has been filed with the hearing examiner or administrator as appropriate before the expiration date of the shoreline permit or exemption, and notice of the proposed extension is given to parties of record and the Department of Ecology.~~
 - 2. ~~Authorization to conduct development activities shall terminate five years after the effective date of a shoreline permit or exemption; provided, that the Hearing Examiner or Administrator, as appropriate, may authorize a single extension for a period of not more than one year based on a showing of good cause, if a request for extension has been filed with the hearing examiner or administrator, as appropriate, before the expiration date of the shoreline permit or exemption and notice of the proposed extension is given to parties of record and the Department of Ecology.~~
- ~~—The effective date of a shoreline permit or exemption shall be the date of filing as provided in RCW 90.58.140(6).~~

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~~— Tolling. The effective date does not include The time periods in (1) and (2) of this section do not include the time during which a use or activity was not actually pursued due to the pendency of administrative appeals or legal actions or due to the need to obtain any other government permits and approvals for the which the issued shoreline permit authorizes, development that authorize the development to proceed, including the pendency of all reasonably related administrative appeals or legal appeal actions on any such permits or approval, last action required on the shoreline permit or exemption and all other government permits and approvals that authorize the development to proceed, including administrative and legal actions on any such permit or approval.~~

~~— The applicant/ proponent shall be responsible for informing the County of the of such pendency, of other permit applications filed with agencies other than the County and of any related administrative and legal actions on any permit or approval.~~

~~3. If no notice of the pendency of other permits or approvals is given to the County prior to the date of the last action by the County to grant County permits and approvals necessary to authorize the development to proceed, including administrative and legal actions of the county, and actions under other County development regulations, the date of the last action by the County shall be the effective date.~~

~~B. Notwithstanding the time limits established in subsections (A)(1) and (2) of this section, upon a finding of good cause based on the requirements and circumstances of the proposed project and consistent with the policies and provisions of this program and the Act, the Hearing Examiner or Administrator, as appropriate, may set different time limits for a particular substantial development permit or exemption as part of the action to approve the permit or exemption. The Hearing Examiner may also set different time limits on specific conditional use permits or variances with the approval of the Department of Ecology. The different time limits may be longer or shorter than those established in subsections (A)(1) and (2) of this section but shall be appropriate to the shoreline development or use under review. "Good cause based on the requirements and circumstances of the proposed project" shall mean that the time limits established for the project are reasonably related to the time actually necessary to perform the development on the ground and complete the project that is being permitted, and/or are necessary for the protection of shoreline resources.~~

~~C. When permit approval includes conditions, such conditions shall be satisfied prior to occupancy or use of a structure or prior to the commencement of a nonstructural activity; provided, that different time limits for compliance may be specified in the conditions of approval as appropriate.~~

~~— The Hearing Examiner or Administrator, as appropriate, shall notify the Department of Ecology in writing of any change to the effective date of a permit, authorized by subsections A through C of this section, with an explanation of the basis for approval of the change. Any change to the time limits of a permit other than those authorized by the sections of this program previously listed shall require a new permit application.~~

~~D. —~~

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Chapter 23.70 Administration

Comment [MD286]: Entire chapter moved to T-22

~~23.70.010 Administrator.~~

~~D. The Administrator, as defined in WCC 23.110.010, is hereby vested with the authority to:~~

- ~~1. Overall administrative responsibility for this program.~~
- ~~2. Determine if a public hearing should be held on a shoreline permit application by the Hearing Examiner pursuant to WCC 23.60.130.~~
- ~~3. Grant or deny statements of exemption.~~
- ~~4. Authorize, approve or deny shoreline substantial development permits, except for those for which the Hearing Examiner or County Council is the designated decision maker.~~
- ~~5. Issue a stop work order pursuant to the procedure set forth in WAC 173-27-270 upon a person undertaking an activity on shorelines in violation of Chapter 90.58 RCW or this program; and seek remedies for alleged violations of this program's regulations, or of the provisions of the Act, or of conditions attached to a shoreline permit issued by Whatcom County.~~
- ~~6. Decide whether or not a proposal is subject to the consolidated review process of Chapter 22.05 WCC and determine what other permits are required to be included in the consolidated review.~~
- ~~7. Make field inspections as needed, and prepare or require reports on shoreline permit applications.~~
- ~~8. Make written recommendations to the County Council or Hearing Examiner as appropriate and, insofar as possible, assure that all relevant information, testimony, and questions regarding a specific matter are made available during their respective reviews of such matter.~~
- ~~9. Propose amendments to the Planning Commission deemed necessary to more effectively or equitably achieve the purposes and goals of this program.~~
- ~~10. The Administrator shall perform the following administrative responsibilities:~~
- ~~11. Advise interested persons and prospective applicants/proponents as to the administrative procedures and related components of this program;~~
- ~~12. Collect fees as provided for in WCC 23.60.070; and~~
- ~~13. Assure that proper notice is given to interested persons and the public through news media, posting or mailing of notice.~~
- ~~14. Review administrative and management policies, regulations, plans and ordinances relative to lands under county jurisdiction that are adjacent to shorelines so as to achieve a use policy on such lands that is consistent with the Act and this program.~~
- ~~15. Review and evaluate the records of project review actions in shoreline areas shoreline environments and report on the cumulative effects of authorized development of shoreline conditions. The Administrator Director shall coordinate such review with the Washington Department of Ecology, the Washington Department of Fish and Wildlife, the Lummi Nation and Nooksack Tribe, and other interested parties.~~
- ~~16. Make recommendations to the Planning Commission for open space tax designations pursuant to Chapter 84.34 RCW.~~

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1 E. ~~The Director of Planning and Development Services shall have the authority to develop~~
2 ~~administrative guidance materials related to the interpretations of principles and terms in this~~
3 ~~program as required to provide for consistent and equitable implementation of this program. Such~~
4 ~~administrative guidance documents shall be developed in consultation with the Washington State~~
5 ~~Department of Ecology to ensure that any formal written interpretations are consistent with the~~
6 ~~purpose and intent of Chapter 90.58 RCW, the applicable guidelines, and the goals and objectives of~~
7 ~~this program.~~

Comment [RCE287]: Moved to 23.10.

23.70.020 SEPA official.

8 The Whatcom County SEPA responsible official is designated by WCC 16.08.040. The responsible official
9 or his/her designee is hereby authorized to conduct environmental review of all use and development
10 activities subject to this program, pursuant to Chapter 197-11 WAC and Chapter 43-21C RCW.

Comment [CES288]: Authority in WCC 16.08

23.70.030 Hearing Examiner.

12 The Whatcom County Hearing Examiner is hereby vested with the authority to conduct open record
13 hearings and prepare a record thereof pursuant to WCC 2.11.210.

23.70.040 Planning Commission.

15 The Whatcom County Planning Commission is hereby vested with the responsibility to review the
16 program from time to time as a major element of the County's planning and regulatory program, and
17 make recommendations for amendments thereof to the County Council.

23.70.050 County Council.

19 The Whatcom County Council is hereby vested with authority to:

- 20 A. ~~Initiate an amendment to this program according to the procedures prescribed in WAC 173-26-100.~~
21 B. ~~Adopt all amendments to this program, after consideration of the recommendation of the Planning~~
22 ~~Commission and pursuant to the procedural requirements of Chapter 2.02 WCC; provided, that~~
23 ~~substantive amendments shall become effective immediately upon adoption by the Department of~~
24 ~~Ecology.~~
25 C. ~~Make final decisions with regard to shoreline permit, shoreline variance or shoreline conditional use~~
26 ~~applications that require County Council action on a consolidated review as provided by Chapter~~
27 ~~22.05 WCC.~~
28 D. ~~Review and decide appeals to Hearing Examiner decisions pursuant to the procedures of WCC~~
29 ~~23.60.150.~~
30

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Chapter 23.80 Legal Provisions

Comment [MD289]: Entire chapter moved to 23.05 or 23.10

23.80.010 Amendments.

- ~~B. The County Council or the Planning Commission may initiate an amendment to this program according to the procedures prescribed in WAC 173-26-100. The Planning Commission shall conduct a public hearing on any amendment proposed by the county council.~~
- ~~C. Any person may petition the County Council or Planning Commission to amend this program. Petitions shall specify the changes requested and any and all reasons therefor. The County Council or Planning Commission may schedule a public hearing on said petition(s) if it deems the proposed amendment would make this program more consistent with the Act and/or any applicable Department of Ecology Guidelines, or more equitable in its application to persons or property due to changed conditions in an area.~~
- ~~D. After approval or disapproval of a program amendment by the Department of Ecology as provided in RCW 90.58.090, the County shall publish a notice that the program amendment has been approved or disapproved by the Department of Ecology. For the purposes of RCW 36.70A.290, the date of publication for the amendment of a program is the date the County publishes notice that the program amendment has been approved or disapproved by the Department of Ecology.~~
- ~~E. The administrator shall submit an annual report to the County Council reviewing the effectiveness of the program in achieving its stated purpose, goals, and objectives. Such report may also include any proposed amendments deemed necessary to increase its effectiveness or equity. If said report contains proposed amendments, the Council may schedule a public hearing to consider such matter in accordance with the procedure described in subsection A of this section. Said report shall also include a determination of whether or not the goal of no net loss of shoreline ecological function is being achieved and provide recommendations for achieving and maintaining the goal.~~
- ~~F. Upon County Council adoption of a detailed community or subarea plan under the Whatcom County Comprehensive Plan, the Planning and Development Services Department shall prepare amendments, as appropriate, for the purpose of incorporating the goals, objectives, and standards of the community or subarea plan into this program. The Planning Commission shall schedule a public hearing upon receipt of such proposals, and shall give due consideration to the community objectives so expressed.~~

23.80.020 Violations and Penalties.

- ~~A. In the event any person violates any of the provisions of this chapter, the County may issue a correction notice to be delivered to the owner or operator, or to be conspicuously posted at the site. In a nonemergency situation, such notice may include notice of the intent to issue a stop work order no less than 10 calendar days following the receipt of the correction notice, and provide for an administrative predeprivation hearing within 10 calendar days of the notice. In an emergency situation where there is a significant threat to public safety or the environment, the County may issue a stop work order. The stop work order shall include, in writing, the right to request an administrative predeprivation hearing within 72 hours following receipt of the stop work order.~~

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- ~~B. In addition to incurring civil liability under WCC 23.80.030 and RCW 90.58.210, pursuant to RCW 90.58.220 any person found to have willfully engaged in activities on shorelines of the state in violation of the provisions of the Act or of this program, or other regulations adopted pursuant thereto shall be punished by:~~
- ~~1. A fine of not less than \$25.00 or more than \$1,000;~~
 - ~~2. Imprisonment in the county jail for not more than 90 days; or~~
 - ~~3. Both such fine and imprisonment;~~
- ~~provided, that the fine for the third and all subsequent violations in any five-year period shall not be less than \$500.00 nor more than \$10,000. Provided further, that fines for violations of RCW 90.58.550, or any rule adopted thereunder, shall be determined under RCW 90.58.560. Each permit violation or each day of continued development without a required permit shall constitute a separate violation.~~
- ~~C. The penalty provided in subsection B of this section shall be assessed and may be imposed by a notice in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the same. The notice shall include the amount of the penalty imposed and shall describe the violation with reasonable particularity. In appropriate cases, corrective action shall be taken within a specific and reasonable time.~~
- ~~D. Within 30 calendar days after the notice is received, the person incurring the penalty may apply in writing to the county for remission or mitigation of such penalty. Upon receipt of the application, the county may remit or mitigate the penalty upon whatever terms the county in its discretion deems proper. The county's final decision on mitigation or revisions may be reviewed by the hearing examiner if the aggrieved party files a written appeal therewith of said decision within 10 calendar days of its issuance.~~
- ~~E. If work activity has occurred on a site in violation of this program, prompt corrective action, restoration or mitigation of the site will be required when appropriate. If this provision is not complied with, the county may restore or mitigate the site and charge the responsible person for the full cost of such an activity. Additionally, any and all permits or approvals issued by the county may be denied for that site for a period of up to six years.~~
- ~~F. The county may suspend or revoke a permit if the applicant violates the conditions or limitations set forth in the permit or exceeds the scope of the work set forth in the permit.~~
- ~~G. Any person who willfully violates any court order or regulatory order of injunction issued pursuant to this program shall be subject to a fine of not more than \$5,000, imprisonment in the county jail for not more than 90 days, or both.~~

23.80.030 Remedies.

- ~~A. The Whatcom County prosecuting attorney or administrator, where authorized, shall bring such injunctive, declaratory, or other actions as are necessary to ensure that no uses are made of the shorelines of the state located within Whatcom County in conflict with the provisions of this program, the Act, or other regulations adopted pursuant thereto, and to otherwise enforce the provisions of this program.~~

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B. ~~Any person subject to the regulatory provisions of this program or the Act who violates any provision thereof, or permit, or permit condition issued pursuant thereto shall be liable for all damage to public or private property arising from such violation, including the cost of restoring the affected area to its condition prior to violation. The Whatcom County prosecuting attorney shall bring suit for damages under this section on their own behalf and on the behalf of all persons similarly situated. If liability has been established for the cost of restoring an area affected by a violation, the court shall make provision to assure that restoration will be accomplished within a reasonable time at the expense of the violator. In addition to such relief, including money damages, the court in its discretion may award attorney's fees and costs of the suit to the prevailing party.~~

C. ~~A person who fails to conform to the terms of a substantial development permit, conditional use permit or variance issued under RCW 90.58.140, who undertakes a development or use on shorelines of the state without first obtaining any required permit or authorization, or who fails to comply with a stop work order may be subject to a civil penalty. The penalty shall be imposed pursuant to the procedure set forth in WAC 173-27-280 and become due and recovered as set forth in WAC 173-27-290(3) and (4). Persons incurring a penalty may appeal the same to the shoreline hearings board or the county council pursuant to WAC 173-27-290(1) and (2).~~

D. ~~Any order, requirement or determination by the administrator pursuant to WCC 23.80.020 may be appealed in accordance with the provisions of WCC 23.60.150(G) and (H).~~

23.80.040 Abatement.

~~Structures or development on shorelines considered by the administrator to present a hazard or other public nuisance to persons, properties or natural features may be abated by the County under the provisions of the applicable provisions of the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, or successor as adopted by Whatcom County, or by other appropriate means.~~

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Chapter 23.11060 Definitions

23.1160.005 Generally.

The terms used throughout this program shall be defined and interpreted as indicated below. When consistent with the context, words used in the present tense shall include the future; the singular shall include the plural, and the plural the singular. Any words not defined herein shall be defined pursuant to WWC Chapter 16.16 (Critical Areas) or Titles 20 (Zoning) or 22 (Land Use and Development), or their common meanings when not defined in code.

23.1160.010 “A” definitions.

~~1. “Accessory development” means any development incidental to and subordinate to a primary use of a shoreline site and located adjacent thereto.~~

Comment [CES290]: This term is not used now; use “accessory use” throughout, which is defined in T-20.

~~2-1. “Accessory structure” means a structure that is incidental and subordinate to a primary use and located on the same lot as the primary use, such as barns, garages, storage sheds, and similar structures. Structures that share a common wall with a primary residential structure shall be considered an extension of the primary structure, rather than an accessory structure.~~

Comment [AP291]: Added for consistency with revisions made to Bulk Provisions Table per Scoping Document, Item #17d.

~~“Accessory use” means a use customarily incidental to a permitted use; provided, that such use shall be located on the same lot as the permitted use except where specifically permitted elsewhere in zoning district regulations.~~

Comment [AP292]: Captured in Zoning Code (Title 20).

~~3-2. “Accretion shoreform” means a shoreline with a relatively stable berm and backshore that has been built up by long-term deposition of sand and gravel transported by wind and/or water from a feeder bluff or other material source. Such shoreforms are scarce locally and Examples include, but are not limited to, barrier beaches, points, spits, tombolos, pocket beaches, and point and channel bars on streams.~~

~~4-3. “Act” means the Shoreline Management Act of 1971 (Chapter 90.58 RCW) as amended.~~

~~5. “Activity” means human activity associated with the use of land or resources.~~

Comment [CES293]: Term already defined in CAO.

~~6. “Administrator” or “Shoreline Administrator” means the director of the department of planning and development services who is to carry out the administrative duties enumerated in this program, or his/her designated representative.~~

Comment [CES294]: Term no longer used; has been replaced with “Director,” in keeping with general direction of other, recent code overhauls.

~~7-4. “Adverse impact” means an impact that can be measured or is tangible and has a reasonable likelihood of causing moderate or greater harm to ecological functions or processes or other elements of the shoreline environment.~~

~~8-5. “Agricultural activities” means agricultural uses and practices including, but not limited to: producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities; and maintaining~~

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agricultural lands under production or cultivation. The construction of new structures or activities that bring a new, non-ongoing agricultural area into agricultural use are not considered agricultural activities.

Comment [CES295]: From the CAO definition.

~~9.6.~~ “Agricultural equipment” and “agricultural facilities” include, but are not limited to:

- a. The following used in agricultural operations: equipment; machinery; constructed shelters, buildings, and ponds; fences; water diversion, withdrawal, conveyance, and use equipment and facilities including, but not limited to, pumps, pipes, tapes, canals, ditches, and drains;
- b. Corridors and facilities for transporting personnel, livestock, and equipment to, from, and within agricultural lands;
- c. Farm residences and associated equipment, lands, and facilities; and
- d. Roadside stands and on-farm markets for marketing fruit or vegetables.

~~10.7.~~ “Agricultural land” means areas on which agricultural activities are conducted as of the date of adoption of this program pursuant to the State Shoreline Guidelines as evidenced by aerial photography or other documentation. After the effective date of this program, land converted to agricultural use is subject to compliance with the requirements herein.

~~11.8.~~ “Agricultural products” includes, but is not limited to, horticultural, viticultural, floricultural, vegetable, fruit, berry, grain, hops, hay, straw, turf, sod, seed, and apiary products; feed or forage for livestock; Christmas trees; hybrid cottonwood and similar hardwood trees grown as crops and harvested within 20 years of planting; and livestock including both the animals themselves and animal products including, but not limited to, meat, poultry and poultry products, and dairy products.

~~12.~~ “Alluvial fan” means a fan-shaped deposit of sediment and organic debris formed where a stream flows or has flowed out of a mountainous upland onto a level plain or valley floor because of a sudden change in sediment transport capacity (e.g., significant change in slope or confinement).

Comment [CES296]: Already defined in Ch. 16.16

~~13.9.~~ “Alteration” means any human-induced change in an existing condition of a shoreline, critical area and/or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing (vegetation), draining, construction, compaction, excavation, or any other activity that changes the character of the area.

~~14.~~ “Anadromous fish” means fish species that spend most of their lifecycle in saltwater, but return to freshwater to reproduce.

Comment [CES297]: Term not used in this document.

~~15.10.~~ “Appurtenance” means development that is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the OHWM and/or the perimeter of a wetland. For the purposes of single-family residential exemptions, normal Appurtenances include a garage, deck, driveway, utilities, fences, installation of a septic tank and drainfield, and grading which that does not exceed 250 cubic yards (except to construct a conventional drainfield) and that does not involve placement of fill in any wetland or waterward of the ordinary high water mark.

~~16.11.~~ “Aquaculture” means the culture or farming or culture of food fish, shellfish, or other aquatic plants or animals, in freshwater or saltwater areas, and may require development such as fish hatcheries, rearing pens and structures, and shellfish rafts, as well as use of natural spawning and rearing areas. Aquaculture does not include the harvest of wild geoduck associated with the state

Comment [CES298]: Definition amended to state definition from WAC 173-26-020(6).

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managed wildstock geoduck fishery-free swimming fish or the harvest of shellfish not artificially planted or maintained, including the harvest of wild stock geoducks on DNR-managed lands.

~~17. “Aquaculture practices” means any activity directly pertaining to growing, handling, or harvesting of aquaculture produce including, but not limited to, propagation, stocking, feeding, disease treatment, waste disposal, water use, development of habitat and structures. Excluded from this definition are related commercial or industrial uses such as wholesale and retail sales, or final processing and freezing.~~

Comment [CES299]: Term not used

~~18.12. “Aquatic shoreline areaenvironment” means an area designated pursuant to WCC Chapter 23.230 (Shoreline Jurisdiction and Environment Designations).~~

~~19. “Archaeological object” means an object that comprises the physical evidence of an indigenous and subsequent culture including material remains of past human life including monuments, symbols, tools, facilities, graves, skeletal remains and technological byproducts.~~

~~20. “Archaeological resource/site” means a geographic locality in Washington, including, but not limited to, submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects. “Significant” is that quality in American history, architecture, archaeology, engineering, and culture that is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:~~

Comment [AP300]: Re-located to “Cultural resource” and “Cultural resource site” definitions

~~a. That are associated with events that have made a significant contribution to the broad patterns of our history; or~~

~~b. That are associated with the lives of significant persons in our past; or~~

~~c. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or~~

~~d. That have yielded or may be likely to yield information important in history or prehistory.~~

~~21.13. “Archaeologist” means a person who has designed and executed an archaeological study as evidenced by a thesis or dissertation and has been awarded an advanced degree such as an M.A., M.S. or Ph.D. from an accredited institution of higher education in archaeology, anthropology, or history or other germane discipline with a specialization in archaeology; has a minimum of one year of field experience with at least 24 weeks of field work under the supervision of a professional archaeologist, including no less than 12 weeks of survey or reconnaissance work, and at least eight weeks of supervised laboratory experience. Twenty weeks of field work in a supervisory capacity must be documentable with a report produced by the individual on the field work.~~

~~22. “Archaeology” means systematic, scientific study of the human past through material remains.~~

Comment [CES301]: Term already found in T-20 definitions.

~~23.14. “Associated wetlands” means wetlands that are in proximity to tidal waters, lakes, rivers, or streams that are subject to the Shoreline Management Act and either influence or are influenced by such waters. Factors used to determine proximity and influence include, but are not limited to: location contiguous to a shoreline waterbody, formation by tidally influenced geohydraulic processes, presence of a surface connection including through a culvert or tide gate, location in part or whole within the floodplain of a shoreline, periodic inundation, and/or hydraulic continuity.~~

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~~24-15.~~ “Average grade level” means the average of the natural or existing topography of the portion of the lot, parcel, or tract of real property that will be directly under a proposed building or structure. In the case of structures to be built over water, average grade level shall be the elevation of the ordinary high water mark. Calculation of the average grade level shall be made by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure. ~~on that part of the lot to be occupied by the building or structure as measured by averaging the elevations at the center of all exterior walls of the proposed structure.~~

~~23.1160.020~~ “B” definitions.

1. “Backshore” means the accretion or erosion zone, located landward of the line of ordinary high water, which is normally wetted only by storm tides. A backshore may take the form of a more or less narrow storm berm (ridge of wave-heaped sand and/or gravel) under a bluff, or it may constitute a broader complex of berms, marshes, meadows, or dunes landward of the line of ordinary high water. It is part of the littoral drift process along its waterward boundary. ~~a zone of accretion or erosion lying landward of the average high-tide mark, wetted by tides during storm events.~~
2. “Barrier beach” means a linear ridge of sand or gravel extending above high tide, built by wave action and sediment deposition seaward of the original coastline; includes a variety of depositional coastal landforms. ~~accretion shoreform of sand and/or gravel berm(s) accreted waterward of bluffs, bays, marshes or estuaries by littoral drift; the berm acts as a natural dike and seawall to its backshore or marsh hinterland.~~
3. “Beach nourishment” means a restoration or shoreline stabilization activity in which selected beach material is deposited at one or several locations in the updrift portion of a drift sector. The material is then naturally transported by waves or currents downdrift to stabilize or restore accretion shoreforms and other berms, which may be eroding due to artificial obstructions in the shore process corridor.
4. “Bed and Breakfast” means a privately owned dwelling that is the primary residence(s) of the owner in which, for compensation, one to five rooms are used as sleeping units to house or lodge individuals or families for periods of less than 30 days as transient visitors with or without limited food service. The use of the dwelling unit for the bed and breakfast shall be clearly incidental and subordinate to its use for residential purposes and the purpose of the applicable zoning district. At least one owner shall be present overnight when a guest room is rented.

Comment [CES302]: Amended to BAS definition (from Hugh Shippman’s *A geomorphic classification of Puget Sound*)

~~3-5.~~ “Bedlands” means those submerged lands below the line of extreme low tide in marine waters and below the line of navigability or navigable lakes and rivers. Where the line of navigability has not been established, bedlands would be those submerged lands below the OHWM in lakes and rivers.

~~4-6.~~ “Bedrock” means a general term for rock, typically hard, consolidated geologic material that underlies soil or other unconsolidated, superficial material or is exposed at the surface.

~~5-7.~~ “Berm” or “protective berm” means one or several accreted linear mounds of sand and gravel generally paralleling the shore at or landward of OHWM; berms are normally stable because of material size or vegetation, and are naturally formed by littoral drift.

Comment [CES303]: Incorporated from Resolution 2016-039, Council’s action on short-term rentals.

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- 6-8. “Best management practices” means conservation practices or systems of practices and management measures that:
- Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment;
 - Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of waters, wetlands, and other fish and wildlife habitats;
 - Control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material.
7. ~~“Bioengineered shoreline stabilization” means biostructural and biotechnical alternatives to hardened structures (bulkheads, walls) for protecting slopes or other erosive features. Bioengineered stabilization uses vegetation, geotextiles, geosynthetics and similar materials. An example is vegetated reinforced soil slopes (VRSS), which uses vegetation arranged and embedded in the ground to prevent shallow mass movement and surficial erosion.~~
9. “Boathouse.” See “Moorage Structure.”
10. “Boat lift” or “lift.” See “Moorage Structure.” means an in-water structure used for the dry berthing of vessels above the water level and lowering of vessels into the water. A boat lift as herein defined is used to berth and launch a single vessel suspended over the water’s surface. A boat lift is generally a manufactured unit without a canopy cover and may be placed in the water adjacent to a dock or as stand-alone structure. A boat lift may be designed either for boats or personal watercraft. A boat lift is to be differentiated from a hoist or crane used for the launching of vessels. A boat lift with a canopy cover shall be considered a covered moorage for the purposes of this program.
- 8-11. “Bog” means a type of wetland dominated by mosses that form peat. Bogs are very acidic, nutrient poor systems, fed by precipitation rather than surface inflow, with specially adapted plant communities.
- 9-12. “Breakwater” means an offshore structure that is generally built parallel to shore that may or may not be connected to land, and may be floating or stationary. Their primary purpose is to protect harbors, moorages and navigation activity from wave and wind action by creating stillwater areas along shore. A secondary purpose is to protect shorelines from wave-caused erosion.
- 10-13. “Buffer (buffer zone)” means the area adjacent to a shoreline and/or critical area that separates and protects the area from adverse impacts associated with adjacent land uses.
- 11-14. “Building” means any structure used or intended for supporting or sheltering any use or occupancy as defined in the International Building Code.
- 12-15. “Building area” means the entire area that will be disturbed to construct the home, normal appurtenances (except on-site sewage systems), and landscaping.
- 13-16. “Building footprint” means, for the purposes of this program, the ground area contained by the exterior walls of a building.
- 14-17. “Bulkhead” means a wall-like structure ~~such as a revetment or seawall~~ that is placed parallel to shore primarily for retaining uplands and fills prone to sliding or sheet erosion, and to protect uplands and fills from erosion by wave action.

Comment [CES304]: Now found under
“Shoreline stabilization, soft-treatment”

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23.1160.030 “C” definitions.

1. “Canopy.” See “Moorage Structure.”

1. “Channel migration zone (CMZ)” means the area along a river or stream within which the channel can reasonably be expected to migrate over time as a result of normally occurring processes. It encompasses that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion. There are three components of the channel migration zone: (a) the historical migration zone (HMZ) — the collective area the channel occupied in the historical record; (b) the avulsion hazard zone (AHZ) — the area not included in the HMZ that is at risk of avulsion over the timeline of the CMZ; and (c) the erosion hazard area (EHA) — the area not included in the HMZ or the AHZ that is at risk of bank erosion from stream flow or mass wasting over the timeline of the CMZ. The channel migration zone may not include the area behind a lawfully constructed flood protection device. Channel migration zones shall be identified in accordance with guidelines established by the Washington State Department of Ecology.

Comment [CES305]: Already defined in Ch. 16.16

2. “Channelization” means the straightening, relocation, deepening or lining of stream channels, including construction of continuous revetments or levees for the purpose of preventing gradual, natural meander progression.

3. “Cherry Point management area” means a geographic area defined as all the shoreline areas within the jurisdiction of the Whatcom County shoreline management program lying between the eastern property boundary of Tax Lots 2.27 and 2.28 within the SE 1/4 of Section 11, Township 39 North, Range 1 West, as it existed on June 18, 1987, and the southern boundary of Section 32, Township 39 North, Range 1 East, extending waterward a distance of 5,000 feet and extending landward for 200 feet as measured on a horizontal plane from the OHWM.

Comment [CES306]: Moved to “Official Map” section

3. “Clearing” means the removal or destruction of vegetation or plant cover by manual, chemical, or mechanical means and that may result in exposed soils. Clearing includes, but is not limited to, actions such as cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting, or burning.

4. “Coastal high hazard area” means the area subject to high velocity waters, including, but not limited to, storm surge or tsunamis. The area is designated on the Flood Insurance Rate Map as Zone V1-V30, VE or V.

5. “Commercial development” means those developments whose primary use is for retail, service or other commercial business activities. Included in this definition are developments such as hotels, motels, bed and breakfast establishments, shops, restaurants, banks, professional offices, grocery stores, laundromats, recreational vehicle parks, commercial rental campgrounds and cabins, whether public or private, and indoor or intensive outdoor commercial recreation facilities. Not included are private camping clubs, marinas, signs, utilities, bed and breakfasts, short-term rentals, and other development.

Comment [CES307]: Incorporated from Resolution 2016-039, Council’s action on short-term rentals.

6. “Commercial fish” means those species of fish that are classified under the Washington Department of Fish and Wildlife Food Fish Classification as commercial fish (WAC 220-12-010).

Comment [CES308]: Already in Ch. 16.16

7. “Compensatory mitigation” means a project for the purpose of mitigating, at an equivalent or greater level, unavoidable impacts that remain after all appropriate and practicable avoidance and

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minimization measures have been implemented. Compensatory mitigation includes, but is not limited to, wetland creation, restoration, enhancement, and preservation; stream restoration and relocation, rehabilitation; and buffer enhancement.

Comment [CES309]: Already in Ch. 16.16

8. “Conditional use” for the purposes of this program means a use, development or substantial development listed in the regulations as being permitted only as a conditional use, or not classified in this program. Conditional uses are subject to review and approval pursuant to the criteria in Chapter 23.60 WCC regardless of whether or not the proposal requires a substantial development permit.

Comment [AP310]: Moved to “Shoreline Conditional Use” definition.

9.6. “Conservancy shoreline area environment” means an area so designated in WCC Chapter 23.240 (Shoreline Jurisdiction and Environment Designations).

10. “Conservation” means the prudent management of rivers, streams, wetlands, wildlife and other environmental resources in order to preserve and protect them. This includes the careful use of natural resources to prevent depletion or harm to the environment.

Comment [CES311]: Already in Ch. 16.16

11. “Conservation easement” means a legal agreement that the property owner enters into to restrict uses of the land for purposes of natural resources conservation. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property.

Comment [CES312]: Already in Ch. 16.16

12. “Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally in ground water, air, or soil or that occurs at concentrations greater than those in the natural levels (Chapter 173-200 WAC).

Comment [CES313]: Already in Ch. 16.16

13.7. “County” means Whatcom County, Washington.

14.8. “Covered moorage” means a roofed floating or fixed offshore structure without walls, other than a minimal structural framework needed to support the roof, for moorage of water craft or float planes.

15. “Critical aquifer recharge area” means areas designated by WAC 365-190-080(2) that are determined to have a critical recharging effect on aquifers (i.e., maintain the quality and quantity of water) used for potable water as defined by WAC 365-190-030(2).

Comment [CES314]: Already in Ch. 16.16

16.9. “Critical areas” means the following areas as designated in WCC Chapter 16.16:

- a. Critical aquifer recharge areas.
- b. Wetlands.
- c. Geologically hazardous areas.
- d. Frequently flooded areas.
- e. Fish and wildlife habitat conservation areas.

10. “Critical habitat” means habitat areas with which endangered, threatened, sensitive or monitored plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified in WCC Chapter 16.16 with reference to lists, categories, and definitions promulgated by the Washington Department of Fish and Wildlife as identified in WAC 232-12-011 or 232-12-014; in the Priority Habitat and Species (PHS) program of the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations.

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17.11. "Critical saltwater habitat" includes all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as Pacific herring, surf smelt and Pacific sand lance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

Comment [AP315]: Added for consistency with CAO.

25.16. "Archaeological object/Cultural resource" refers to any archaeological, historic, cemetery, or other cultural sites or artifacts; as well as those traditional food, medicine, fibers, and objects that sustain the religious, ceremonial, and social activities of affected Native American tribes that may be regulated under state or federal laws administered by the Washington State Department of Archaeologic and Historic Preservation (DAHP). means an object that comprises the physical evidence of an indigenous and subsequent culture including material remains of past human life including monuments, symbols, tools, facilities, graves, skeletal remains and technological byproducts.

Comment [CES316]: From DAHP guidance.

26. "Archaeological resource/site/Cultural resource site" means a geographic locality in Washington, including, but not limited to, submerged and submersible lands and the bed of the sea within the state's jurisdiction, that contains archaeological objects/cultural resources. "Significant" is that quality in American history, architecture, archaeology, engineering, and culture that is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. That are associated with the lives of significant persons in our past; or
- c. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. That have yielded or may be likely to yield information important in history or prehistory.

Comment [CES317]: Deleted, as LNTHPO commented, "The definition that is included for this term on page 227 is taken from the Federal process and it does not apply here. Under state law a different process is followed." Proposed for removal, as term "significant" is no longer used.

18.12. "Current deflector" means an angled "stub-dike," groin, or sheet-pile structure which projects into a stream channel to divert flood currents from specific areas, or to control downstream current alignment.

23.1160.040 "D" definitions.

1. "Dam" means a barrier across a stream or river to confine or regulate flow or raise water levels for purposes such as flood or irrigation water storage, erosion control, power generation, or collection of sediment or debris.

2. "Date of filing" refers to the beginning of the state Shorelines Hearings Board's 21 day appeal period. Consistent with RCW 90.58.140(6), "date of filing" is defined as follows:

- a. For projects that only require a substantial development permit: the date that Ecology receives the County's decision.
- b. For a shoreline conditional use permit or variance: the date the Ecology's decision on the shoreline conditional use permit or variance is transmitted to the applicant and the County.

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c. For substantial development permits simultaneously mailed with a shoreline conditional use permit or variance: the date that Ecology's decision on the shoreline conditional use permit or variance is transmitted to the applicant and the County.

Comment [AP318]: Added per Periodic Review Checklist, Item 2017.d, and Scoping Document Item #2a.

~~“Debris flow” means a moving mass of rock fragments, soil, and mud; more than half of the particles being larger than sand size; a general term that describes a mass movement of sediment mixed with water and air that flows readily on low slopes.~~

Comment [CES319]: Already in Ch. 16.16

3. “Department” means the Whatcom County Department of Planning and Development Services.

~~2-4. “Department of Ecology” or “Ecology” means the Washington State Department of Ecology.~~

Comment [AP320]: Added per Scoping Document, Item #7a.

~~3-5. “Development” means any land use activity, action, or manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, site work, and installation of utilities; land division, binding site plans, and planned unit developments; dredging, drilling, dumping, filling, grading, clearing, or removal of any sand, gravel, or minerals; shoreline stabilization works, driving of piling, placing of obstructions; or any project of a permanent or temporary nature that interferes with the normal public use of the surface of the waters overlying lands subject to the act at any stage of water level. “Development” does not include dismantling or removing structures if there is no other associated development or redevelopment. a use consisting of the construction or exterior alteration of structures, dredging, drilling, dumping, filling; removal of any sand, gravel or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature that interferes with the normal public use of the surface of the waters overlying lands subject to the Act at any state of water level. This term may include activities related to subdivision and short subdivisions; binding site plans; planned unit developments; clearing activity; fill and grade work; building or construction; and activities that are exempt from the substantial development permit process or that require a shoreline variance or conditional use.~~

Comment [CES321]: Amended for consistency with WAC 173-27-030.

~~4-6. “Dike” means an artificial embankment placed at a stream mouth or delta area to hold back sea water for purposes of creating and/or protecting arable land from flooding.~~

~~7. “Dock.” See “Moorage Structure.” means all platform structures or anchored devices in or floating upon water bodies to provide moorage for pleasure craft or landing for water dependent recreation including, but not limited to, floats, swim floats, float plane moorages, and water ski jumps. Excluded are launch ramps.~~

Comment [CES322]: Amended to reflect DOE definitions.

~~5-8. “Director” means the Whatcom County Planning and Development Services director, or his/her designee. The Director is the Shoreline Administrator and is authorized to carry out the administrative duties enumerated in his program.~~

~~6-9. “Ditch” or “drainage ditch” means an artificially created watercourse constructed to drain convey surface or ground water. Ditches are graded (manmade) channels installed to collect and convey runoff from fields and roadways. Ditches may include irrigation ditches, waste ways, drains, outfalls, operational spillways, channels, stormwater runoff facilities or other wholly artificial watercourses, except those that directly result from the modification to a natural watercourse. Ditched channels that support fish are considered to be streams.~~

~~7-10. “Dredge spoil” means the material removed by dredging.~~

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- 1 ~~8-11.~~ “Dredging” means the removal, displacement, and disposal of unconsolidated earth material
2 such as silt, sand, gravel, or other submerged material from ~~the bottom~~ waterward of the OHWM of
3 water-bodies or from wetlands. ~~With the exception of regular maintenance of an approved barge~~
4 ~~landing site,~~ maintenance dredging and other support activities are included in this definition.
- 5 12. “Drift sector” or “drift cell” means a particular reach of marine shore in which littoral drift may occur
6 without significant interruption, and which contains any and all natural sources of such drift, and
7 also any accretion shoreform(s) accreted by such drift. Each normal drift sector contains these shore
8 process elements: feeder bluff or estuary, driftway, littoral drift, and accretion shoreform.
- 9 ~~9-13.~~ “Drift sill” means a low elevation groin, typically constructed of rock, installed along with beach
10 nourishment filled up to height of sill, that is sometimes used to hold or slow littoral transport of
11 placed sediment without blocking longshore drift.
- 12 ~~10-14.~~ “Driftway” means that portion of the marine shore process corridor, primarily the upper
13 foreshore, through which sand and gravel are transported by littoral drift. The driftway is the
14 essential component between the feeder bluff(s) and accretion shoreform(s) of an integral drift
15 sector. Driftways are also characterized by intermittent, narrow berm beaches.
- 16 23.1160.050 “E” definitions.
- 17 1. “Ecological functions” or “shoreline functions” means the work performed or role played by the
18 physical, chemical, and biological processes that contribute to the maintenance of the aquatic and
19 terrestrial environments that constitute the shoreline’s natural ecosystem. See WAC 173-26-
20 201(2)(c). Functions include, but are not limited to, habitat diversity and food chain support for fish
21 and wildlife, ground water recharge and discharge, high primary productivity, low flow stream water
22 contribution, sediment stabilization and erosion control, storm and flood water attenuation and
23 flood peak desynchronization, and water quality enhancement through biofiltration and retention of
24 sediments, nutrients, and toxicants. These beneficial roles are not listed in order of priority.
- 25 2. “Ecology” or “Department of Ecology” means the Washington State Department of Ecology.
- 26 3. “Ecosystem processes” or “ecosystem-wide processes” means the suite of naturally occurring
27 physical and geologic processes of erosion, transport, and deposition; and specific chemical
28 processes that shape landforms within a specific shoreline ecosystem and determine both the types
29 of habitat and the associated ecological functions.
- 30 ~~2-4.~~ “Ells.” See “Moorage Structure.”
- 31 ~~3-5.~~ “Emergency activities” means an unanticipated and imminent threat to public health, safety, or the
32 environment which requires immediate action within a time too short to allow full compliance with
33 the master program. Emergency construction is construed narrowly as that which is necessary to
34 protect property from the elements and does not include development of new permanent
35 protective structures where none previously existed. Where new protective structures are deemed
36 by the Director to be the appropriate means to address the emergency situation, upon abatement
37 of the emergency, pursuant to the master program and RCW 90.58.030(3)(e)(iii), WAC 173-27-
38 040(2)(d), or their successors. As a general matter, flooding or other seasonal events that can be
39 anticipated and may occur but that are not imminent are not considered an emergency. ~~those~~

Comment [AP323]: Added per Scoping Document, Item #7a.

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activities that require immediate action within a time too short to allow full compliance with this program due to an unanticipated and imminent threat to public health, safety or the environment. Emergency construction does not include development of new permanent protective structures where none previously existed. All emergency construction shall be consistent with the policies of Chapter 90.58 RCW and this program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

4-6. "Enhancement" means actions performed within an existing degraded shoreline, critical area and/or buffer to intentionally increase or augment one or more functions or values of the existing area. Enhancement actions include, but are not limited to, increasing plant diversity and cover, increasing wildlife habitat and structural complexity (snags, woody debris), installing environmentally compatible erosion controls, or removing nonindigenous plant or animal species.

5. "Erosion" means the wearing away of land by the action of natural forces, such as wind, rain, water and other natural agents that mobilize, transport, and deposit soil particles; on a beach, the carrying away of beach material by wave actions, tidal currents, or littoral currents. a process whereby wind, rain, water and other natural agents mobilize, and transport, and deposit soil particles.

6-7. "Erosion hazard areas" means lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) as having "severe" or "very severe" erosion hazards and areas subject to impacts from lateral erosion related to moving water such as river channel migration and shoreline retreat.

7-8. "Essential public facility" means those facilities that are typically difficult to site, such as airports, state education facilities, and state or regional transportation facilities as defined in RCW 47.06.140, state and local correctional facilities, solid waste handling facilities, and inpatient facilities including substance abuse facilities, mental health facilities, and group homes, and secure community transition facilities as defined in RCW 71.09.020 (RCW 36.70A.200, Siting of essential public facilities).

8-9. "Excavation" means the disturbance, displacement and/or disposal of unconsolidated earth material such as silt, sand, gravel, soil, rock or other material from all areas landward of OHWM.

9-10. "Exempt development" means a use or development activity that is not a substantial development and that is specifically listed as exempt from the substantial development permit requirement in WAC 173-27-040 and WCC ~~Chapter 23.60~~ Title 22 (Land Use and Development).

10-11. "Extreme high water level" means the highest tide level reached in a 19-year tidal cycle, or on lakes, the highest water level reached in the past 10 years.

11-12. "Extreme low tide" means the lowest line on the land reached by a receding tide.

23.1160.060 "F" definitions.

1. "Fair market value" of a development means the open market bid price for conducting the work, using the equipment and facilities, and purchase of the goods, services and materials necessary to accomplish the development. This would normally equate to the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the

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- 1 development shall include the fair market value of any donated, contributed or found labor,
2 equipment or materials.
- 3 2. “Farm pond” means an open water depression created from a non-wetland site in connection with
4 agricultural activities.
- 5 3. “Feasible” means an action, such as a development project, mitigation, or preservation
6 requirement, that meets all of the following conditions:
7 a. The action can be accomplished with technologies and methods that have been used in the past
8 in similar circumstances, or studies or tests have demonstrated in similar circumstances that
9 such approaches are currently available and likely to achieve the intended results;
10 b. The action provides a reasonable likelihood of achieving its intended purpose; and
11 c. The action does not physically preclude achieving the project’s primary intended legal use.
12 In cases where this program requires certain actions, unless they are infeasible, the burden of
13 proving infeasibility is on the applicant/proponent. In determining an action’s infeasibility, the
14 County may weigh the action’s relative costs and public benefits, considered in the short- and long-
15 term time frames.
- 16 4. “Feasible alternative” means an action, such as development, mitigation, or restoration, that meets
17 all of the following conditions: (a) the action can be accomplished with technologies and methods
18 that have been used in the past in similar circumstances, or studies or tests have demonstrated in
19 similar circumstances that such approaches are currently available and likely to achieve the
20 intended results; (b) the action provides a reasonable likelihood of achieving its intended purpose;
21 and (c) the action does not physically preclude achieving the project’s primary intended legal use.
22 Feasibility shall take into account both short- and long-term monetary and nonmonetary costs and
23 benefits.
- 24 5. “Feasible location” means a location that accommodates a development in a manner that achieves
25 its intended purpose consistent with the constraints of the applicable land use regulations and
26 characteristics of the property, including but not limited to lot size, configuration, presence/absence
27 of critical areas and compatibility with adjacent land use/development. Feasibility shall take into
28 account both short- and long-term monetary and nonmonetary costs and benefits.
- 29 6. “Feeder bluff” or “erosional bluff” means any bluff (or cliff) experiencing periodic erosion from
30 waves, sliding or slumping, and/or whose eroded sand or gravel material is naturally transported
31 (littoral drift) via a driftway to an accretion shoreform; these natural sources of beach material are
32 limited and vital for the long-term stability of driftways and accretion shoreforms.
- 33 7. “Feeder bluff exceptional” means relatively rapidly eroding bluff segments identified by the
34 presence of landslide scarps, bluff toe erosion, and a general absence of vegetative cover and/or
35 portions of bluff face fully exposed. Other indicators included the presence of colluvium (slide
36 debris), boulder or cobble lag deposits, and fallen trees across the beachface. Feeder bluff
37 exceptional segments lack a backshore, old or rotten logs, and coniferous bluff vegetation.
- 38 8. “Feedlot” means a concentrated, confined animal or poultry operation for production of meat, milk
39 or eggs; or stabling in yards, barns, pens or houses wherein animals or poultry are fed at the place of

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confinement; and crop or forage growth or production is not sustained within the place of confinement.

9. “Filling” means the ~~act of transporting or placing~~ by any manual or mechanical means of fill material from, to, or on an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land ~~any soil surface~~, including temporary stockpiling of fill material.

10. “Fill material” means any solid or semi-solid material, including rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure that, when placed, changes the grade or elevation of the receiving site.

11. “Fish and wildlife habitat conservation areas” means ~~those areas as defined in WCC Chapter 16.16 (Critical Areas) important for maintaining species in suitable habitats within their natural geographic distribution so that isolated populations are not created, as designated in Chapter 16.16 WCC.~~

12. “Fish habitat” means a complex of physical, chemical, and biological conditions that provide the life-supporting and reproductive needs of a species or life stage of fish. Although the habitat requirements of a species depend on its age and activity, the basic components of fish habitat in rivers, streams, ponds, lakes, estuaries, marine waters, and nearshore areas include, but are not limited to, the following:

- a. Clean water and appropriate temperatures for spawning, rearing, and holding.
- b. Adequate water depth and velocity for migrating, spawning, rearing, and holding, including off-channel habitat.
- c. Abundance of bank and instream structures to provide hiding and resting areas and stabilize stream banks and beds.
- d. Appropriate substrates for spawning and embryonic development. For stream- and lake-dwelling fishes, substrates range from sands and gravel to rooted vegetation or submerged rocks and logs. Generally, substrates must be relatively stable and free of silts or fine sand.
- e. Presence of riparian vegetation as defined in this program. Riparian vegetation creates a transition zone, which provides shade, and food sources of aquatic and terrestrial insects for fish.
- f. Unimpeded passage (i.e., due to suitable gradient and lack of barriers) for upstream and downstream migrating juveniles and adults.

13. “Fisheries” means all species of fish and shellfish commonly or regularly originating or harvested commercially or for sport in Puget Sound and its tributary freshwater bodies, together with the aquatic plants and animals and habitat needed for continued propagation and growth of such species.

14. “Fisheries enhancement” means actions taken to rehabilitate, maintain or create fisheries habitat, including but not limited to hatcheries, spawning channels, lake rehabilitation, and planting of fisheries stocks. Fisheries enhancement differs from aquaculture in that the increase in fisheries stocks eventually becomes available for public harvest.

Comment [CES324]: Updated to be consistent with WAC 173-26-020(16)

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- 1 15. "Float" means an anchored (not directly to the shore) floating platform that is free to rise and fall
 2 with water levels and is used for water-dependent recreational activities such as boat mooring,
 3 swimming or diving. Floats may stand alone with no over-water connection to shore or may be
 4 located at the end of a pier or ramp. a floating platform similar to a dock that is anchored or
 5 attached to pilings.
- 6 16. "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of
 7 normally dry land areas from the overflow of inland waters and/or the unusual and rapid
 8 accumulation of runoff of surface waters from any source.
- 9 17. "Flood control works" means all development on rivers and streams designed to retard bank
 10 erosion, to reduce flooding of adjacent lands, to control or divert stream flow, or to create a
 11 reservoir, including but not limited to revetments, dikes, levees, channelization, dams, vegetative
 12 stabilization, weirs, flood and tidal gates. Excluded are water pump apparatus.
- 13 18. "Flood management" means a long-term program to reduce flood damages to life and property and
 14 to minimize public expenses due to floods through a comprehensive system of planning,
 15 development regulations, building standards, structural works, and monitoring and warning
 16 systems.
- 17 19. "Flood-proofing" means structural provisions, changes, adjustments or a combination thereof, to
 18 buildings, structures, and works in areas subject to flooding in order to reduce or eliminate damages
 19 from flooding to such development and its contents, as well as related water supplies and utility
 20 facilities.
- 21 ~~20. "Floodplain, 100-year" means all lands along a river or stream that may be inundated by the base~~
 22 ~~flood of such river or stream.~~
- 23 ~~21. "Floodway" means those portions of the area of a river valley lying streamward from the outer~~
 24 ~~limits of a watercourse upon which flood waters are carried during periods of flooding that occur~~
 25 ~~with reasonable regularity, although not necessarily annually; said floodway being identified, under~~
 26 ~~normal conditions, by changes in surface soil conditions or changes in types or quality of vegetation~~
 27 ~~ground cover condition, topography, or other indicators of flooding that occurs with reasonable~~
 28 ~~regularity, although not necessarily annually. The floodway shall not include those lands that can~~
 29 ~~reasonably be expected to be protected from flood waters by flood control devices maintained by or~~
 30 ~~maintained under license from the federal government, the state, or the County. The limit of the~~
 31 ~~floodway is that which has been established in the program and approved by the Department of~~
 32 ~~Ecology.~~
- 33 ~~22.20. "Floodway fringe" means that fringe of land in the floodplain outside the floodway, which is~~
 34 ~~subject to inundation by the base flood. Flooding in the fringe is limited to flood surge storage of~~
 35 ~~water currents moving at a negligible velocity of less than one-half mile per hour.~~
- 36 ~~23.21. "Food chain" means the hierarchy of feeding relationships between species in a biotic~~
 37 ~~community. The food chain represents the transfer of material and energy from one species to~~
 38 ~~another within an ecosystem.~~
- 39 ~~24.22. "Foreshore" means the intertidal area between mean higher high water and mean low water.~~

Comment [AP325]: Defined in CAO.

Comment [AP326]: Update per Periodic Review Checklist, Item 2007.a, and Scoping Document, Item #2g.

Comment [CES327]: Already defined in Ch. 16.16

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23. "Fossil fuels" include coal, petroleum, crude oil, natural gas, oil shales, bitumens, tar sands, propane, butane, and heavy oils. All contain carbon and were formed as a result of geologic processes acting on the remains of organic matter. Renewable fuels are not fossil fuels.
- ~~25-24. "Fossil Fuel Transshipment Facility" is a facility engaging primarily in the process of off-loading of fossil fuels materials, refined or unrefined, refinery feedstocks, products or by products from one transportation method (such as a ship, truck, or railcar) facility and loading it onto another transportation facility method for the purposes of transporting the fossil fuel such products into or and out of Whatcom County. Examples of transportation facilities include ship, truck, or freight car. Fossil fuel transshipment facilities may also include pump and compressor stations and associated facilities. This definition shall include bulk storage or transfer facilities for the shipment of crude oil without refining or consuming within the Cherry Point Industrial District and shall excludes Small Fossil or Renewable Fuel Storage and Distribution Facilities.~~
- ~~26. "Fossil Fuel Refinery" means a facility that converts crude oil and other liquids into petroleum products including but not limited to gasoline, distillates such as diesel fuel and heating oil, jet fuel, petrochemical feedstocks, waxes, lubricating oils, and asphalt. Activities that support refineries include but are not limited to: bulk storage, manufacturing, or processing of fossil fuels or by products. This definition excludes Small Fossil or Renewable Fuel Storage and Distribution Facilities.~~
- ~~"Forest land" means all land that is capable of supporting a merchantable stand of timber and is not being actively used, developed, or converted in a manner that is incompatible with timber production.~~
- ~~27. "Forest practices" means any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing of timber; including, but not limited to: (a) road and trail construction, (b) fertilization, (c) prevention and suppression of diseases and insects; or other activities that qualify as a use or development subject to the Act.~~
- ~~28-25. Excluded from this definition is preparatory work such as tree marking, surveying and removal of incidental vegetation such as berries, greenery, or other natural products whose removal cannot normally be expected to result in damage to shoreline natural features. Also excluded from this definition is preparatory work associated with the conversion of land for non-forestry uses and developments. Log storage away from forest land is considered industrial.~~
- ~~29. "Freestanding sign" means a self-supporting sign placed off and away from the building to which it is related.~~
- ~~30-26. "Frequently flooded areas" means lands in the floodplain subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance and attenuation functions, as determined by the County in accordance with WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the 100-year floodplain "special flood hazard area" designations of the Federal Emergency Management Agency and the National Flood Insurance Program, as designated in WCC Chapter 16.16 (Critical Areas).~~

Comment [P/C328]: Showing amendments (in different color) from the P/C from their action on concurrent fossil fuel regulations in Title 20.

Comment [DN329]: Added per Council's pending draft fossil fuel amendments.

Comment [AP330]: Removed. Relying on Title 20 (Zoning).

Comment [AP331]: Removed. Already defined in Title 20 (Zoning).

Comment [AP332]: Removed. Already defined in Title 20 (Zoning).

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~~23.1160.070~~ **“G” definitions.**

1. “Gabions” means works composed of masses of rock, rubble, or masonry tightly enclosed usually by wire mesh so as to form massive blocks. They are used to form walls on beaches to retard wave erosion or as foundations for breakwaters or jetties.

2. “Gangway.” See “Moorage Structure.”

~~2.3.~~ “Geologically hazardous areas” means areas designated in WCC Chapter 16.16 that, because of their susceptibility to erosion, sliding, earthquake, or other geological events, pose unacceptable risks to public health and safety and may not be suited to commercial, residential, or industrial development.

~~3.4.~~ “Geotechnical report” or “geotechnical analysis/assessment” is an umbrella term used for the evaluation completed by a qualified professional to meet the requirements of WCC 16.16.255 (Critical areas assessment reports) and WCC 16.16, Article 3 (Geologically Hazardous Areas). means a scientific study or evaluation conducted by a qualified professional that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards.

~~4.5.~~ “Gradient” means a degree of inclination, or a rate of ascent or descent, of an inclined part of the earth’s surface with respect to the horizontal; the steepness of a slope. It is expressed as a ratio (vertical to horizontal), a fraction (such as meters/kilometers or feet/miles), a percentage (of horizontal distance), or an angle (in degrees).

~~5.6.~~ “Grading” means the movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

~~6.7.~~ “Groins” means wall-like structures extending on an angle waterward from the shore into the intertidal zone. Their purpose is to build or preserve an accretion shoreform or berm on their updrift side by trapping littoral drift. Groins are relatively narrow in width but vary greatly in length. Groins are sometimes built in series as a system, and may be permeable or impermeable, high or low, and fixed or adjustable.

~~7.~~ “Gross floor area” means, for the purposes of WCC 23.50.070(J), the sum total of the area included within the surrounding exterior walls of a building.

8. “Ground water” means all water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves (Chapter 90.44 RCW).

9. “Growth Management Act” means Chapters 36.70A and 36.70B RCW, as amended.

Comment [MD333]: Deleted as term removed from referenced provision.

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~~23.1160.080~~ “H” definitions.

~~1.~~ “Habitat conservation areas.” See “Fish and wildlife habitat conservation areas.”

~~4.2.~~ “Harbor area” means the navigable waters between inner and outer harbor lines as established by the State Harbor Lines Commission waterward of and within one mile of an incorporated city. Harbor areas have been established offshore of Bellingham and Blaine.

~~2. Repealed by Ord. 2019-013.~~

~~3.~~ “Hazard tree” See WCC Chapter 16.16 (Critical Areas).

~~3.4.~~ “Hazardous area” means any shoreline area environment which is hazardous for intensive human use or structural development due to inherent and/or predictable physical conditions, such as, but not limited to, geologically hazardous areas, frequently flooded areas, and coastal high hazard areas.

~~4.5.~~ “Hazardous materials” means any substance containing such elements or compounds which, when discharged in any quantity in shorelines, present an imminent and/or substantial danger to public health or welfare, including, but not limited to: fish, shellfish, wildlife, water quality, and other shoreline features and property.

~~5.6.~~ “Hazardous substance” means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC 173-303-090 or 173-303-100.

~~6.7.~~ “Hearings board” means the State Shorelines Hearings Board referenced in RCW 90.58.170.

~~7.8.~~ “Height (building)” means the distance measured from the average grade level to the highest point of a structure. Television antennas, chimneys, and similar structures or appurtenances shall not be used in calculating height except where they obstruct the view of residences adjoining such shorelines. Temporary construction equipment is excluded in this calculation (WAC 173-27-030(9) or its successor). For all moorage structures, height shall be measured from the ordinary high water mark the vertical dimension measured from average grade to the highest point of a structure; provided, that antennas, chimneys, and similar appurtenances shall not be used in calculating height, unless such appurtenance obstructs the view of a substantial number of adjacent residences.

~~8.9.~~ “High intensity land use” means land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than one unit/acre), high intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high intensity recreation (golf courses, ball fields), and hobby farms.

~~9.10.~~ “Historic preservation professional” means those individuals who hold a graduate degree in architectural history, art history, historic preservation, or closely related field, with coursework in American architectural history, or a bachelor’s degree in architectural history, art history, historic preservation or closely related field plus one of the following:

- a. At least two years of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or
- b. Substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

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- 1 | ~~10.11.~~ “Historic site” means those sites that are eligible or listed on the Washington Heritage Register,
2 | National Register of Historic Places, or any locally developed historic registry formally adopted by
3 | the Whatcom County Council.
- 4 | ~~11.12.~~ “Hydraulic project approval (HPA)” means a permit issued by the State Department of Fish and
5 | Wildlife for modifications to waters of the state in accordance with Chapter 77.55 RCW.
- 6 | ~~12.13.~~ “Hydric soil” means a soil that is saturated, flooded or ponded long enough during the growing
7 | season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be
8 | determined following the methods described in the NRCS “Field Indicators of Hydric Soils” Version 7,
9 | and/or the Corps of Engineers Wetlands Delineation Manual, as amended. ~~Washington State~~
10 | ~~Wetland Identification and Delineation Manual (RCW 36.70A.175).~~
- 11 | ~~13.14.~~ “Hydrophytic vegetation” means macrophytic plant life growing in water or on a substrate that
12 | is at least periodically deficient in oxygen as a result of excessive water content.
- 13 | ~~14.15.~~ “Hyporheic zone” means the saturated zone located beneath and adjacent to streams that
14 | contain some proportion of surface water from the surface channel mixed with shallow ground
15 | water. The hyporheic zone serves as a filter for nutrients, as a site for macroinvertebrate production
16 | important in fish nutrition, and provides other functions related to maintaining water quality.
- 17 | **23.1160.090 “I” definitions.**
- 18 | ~~1.~~ “Impervious surface” means a hard surface area which either prevents or retards the entry of water
19 | into the soil mantle as under natural conditions prior to development, and/or a hard surface area
20 | which causes water to run off the surface in greater quantities or at an increased rate of flow from
21 | the flow present under natural conditions prior to development. Common impervious surfaces
22 | include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas,
23 | concrete or asphalt paving, gravel roads, and oiled macadam or other surfaces which similarly
24 | impede the natural infiltration of stormwater. Natural surface water and open, uncovered
25 | detention/retention facilities shall not be calculated when determining total impervious surfaces.
26 | ~~Impervious surfaces do not include surfaces created through proven low impact development~~
27 | ~~techniques.~~
- 28 | ~~2.1.~~ “In-kind compensation” means to replace critical areas with substitute areas whose characteristics
29 | and functions mirror those destroyed or degraded by a regulated activity.
- 30 | ~~3.2.~~ “Instream structure” means a structure placed by humans within a stream or river waterward of the
31 | ordinary high-water mark that either causes or has the potential to cause water impoundment or
32 | the diversion, obstruction, or modification of water flow. Instream structures may include those for
33 | hydroelectric generation, irrigation, water supply, flood control, transportation, utility service
34 | transmission, fish habitat enhancement, or other purpose.
- 35 | ~~4.3.~~ “Industrial development” means facilities for processing, manufacturing, and storage of finished or
36 | semi-finished goods, including but not limited to oil, metal or mineral product refining, power
37 | generating facilities, including hydropower, ship building and major repair, storage and repair of
38 | large trucks and other large vehicles or heavy equipment, related storage of fuels, commercial
39 | storage and repair of fishing gear, warehousing, construction contractors’ offices and

Comment [AP334]: Updated for consistency with CAO.

Comment [AP335]: Removed. Relying on definition in Title 20 (Zoning).

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material/equipment storage yards, wholesale trade or storage, and log storage on land or water, together with necessary accessory uses such as parking, loading, and waste storage and treatment. Excluded from this definition are mining, including on-site processing of raw materials, and off-site utility, solid waste, road or railway development, and methane digesters that are accessory to an agricultural use. This definition excludes fossil or renewable fuel refineries or transshipment facilities.

Comment [DN336]: Amended per Council's pending draft fossil fuel amendments.

~~5-4.~~ "Infiltration" means the downward entry of water into the immediate surface of soil.

~~6-5.~~ "Institutional development" means those public and/or private facilities including, but not limited to, police and fire stations, libraries, activity centers, schools, educational and religious training centers, water-oriented research facilities, and similar noncommercial uses, excluding essential public facilities.

~~7-6.~~ "Intertidal zone" means the substratum from extreme low water of spring tides to the upper limit of spray or influence from ocean-derived salts. It includes areas that are sometimes submerged and sometimes exposed to air, mud and sand flats, rocky shores, salt marshes, and some terrestrial areas where salt influences are present.

~~8-7.~~ "Invasive species" means a species that is (a) nonnative (or alien) to Whatcom County and (b) whose introduction causes or is likely to cause economic or environmental harm, or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes). Human actions are the primary means of invasive species introductions.

~~23.1160.100~~ "J" definitions.

1. "Jetties" means structures that are generally perpendicular to shore extending through or past the intertidal zone. They are built singly or in pairs at harbor entrances or river mouths mainly to prevent shoaling or accretion from littoral drift in entrance channels, which may or may not be dredged. Jetties also serve to protect channels from storm waves or cross currents, and stabilize inlets through barrier beaches. On the West Coast and in this region, most jetties are of riprap mound construction.

~~23.1160.110~~ "K" definitions.

Reserved.

~~23.1160.120~~ "L" definitions.

1. "Lake." See WCC Chapter 16.16 (Critical Areas). means a body of standing water in a depression of land or expanded part of a stream, of 20 acres or greater in total area. A lake is bounded by the OHWM or, where a stream enters the lake, the extension of the lake's OHWM within the stream. Wetland areas occurring within the standing water of a lake are to be included in the acreage calculation of a lake.

Comment [AP337]: Updated for consistency with CAO.

2. "Landslide" means a general term covering a wide variety of mass movement landforms and processes involving the downslope transport, under gravitational influence of soil and rock material *en masse*; included are debris flows, debris avalanches, earthflows, mudflows, slumps, mudslides, rock slides, and rock falls.

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3. "Landslide hazard areas" means areas that, due to a combination of site conditions, like slope inclination and relative soil permeability, are susceptible to mass wasting, as designated in WCC Chapter 16.16 (Critical Areas).
- ~~3.4. "Launch Rail." See "Moorage Structure."~~
- ~~4.5. "Launch Ramp" or "Boat Ramp." See "Moorage Structure." means an inclined slab, set of pads, rails, planks, or graded slope used for launching boats with trailers or by hand.~~
- ~~5.6. "Levee" means a natural or artificial embankment on the bank of a stream for the purpose of keeping floodwaters from inundating adjacent land. Some levees have revetments on their sides.~~
- ~~6.7. "Liberal construction" means an interpretation that applies in writing in light of the situation presented that tends to effectuate the spirit and purpose of the writing.~~
- ~~7.8. "Littoral drift" means the natural movement of sediment, particularly sand and gravel, along shorelines by wave action in response to prevailing winds or by stream currents (see also "drift sector," "driftway").~~
- ~~8.9. "Live-aboard" means any noncommercial habitation of a vessel, as defined in WCC 23.110.220(3), when any one of the following applies:~~
- ~~a. Any person or succession of different persons resides on the vessel in a specific location, and/or in the same area on more than a total of 30 days in any 40-day period or on more than a total of 90 days in any 365-day period. "In the same area" means within a radius of one mile of any location where the same vessel previously moored or anchored on state-owned aquatic lands. A vessel that is occupied and is moored or anchored in the same area, but not for the number of days described in this subsection, is considered used as a recreational or transient vessel;~~
 - ~~b. The city or county jurisdiction, through local ordinance or policy, defines the use as a residential use or identifies the occupant of the vessel as a resident of the vessel or of the facility where it is moored;~~
 - ~~c. The operator of the facility where the vessel is moored, through the moorage agreement, billing statement, or facility rules, defines the use as a residential use or identifies the occupant of the vessel as a resident of the vessel or of the facility; or~~
 - ~~d. The occupant or occupants identify the vessel or the facility where it is moored as their residence for voting, mail, tax, or similar purposes.~~
- ~~9.10. "Log booming" means assembling and disassembling rafts of logs for water-borne transportation.~~
- ~~10.11. "Log storage" means the holding of logs in the water for more than 60 days.~~
- ~~11. "Lot" means land described by final plat, short plat or metes and bounds description and is established pursuant to applicable state and local regulations in effect at the date a legal instrument creating the lot is recorded at the Whatcom County auditor's office. A lot bisected by a public or private road, railroad, trail or other feature is considered a single building site unless the portion of the parcel on each side of the bisecting road or other feature separately meets all dimensional, buffer and other requirements established by local and state regulations.~~
- ~~12. "Lot area" or "lot size" means the portion of a total parcel determined to be usable for the purpose of creating a building lot, pursuant to all applicable regulations. The area below the ordinary high~~

Comment [AP338]: Removed. Relying on Title 20 (Zoning).

Comment [CES339]: Defined in T-20.

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water mark shall not be considered a part of the lot area. Lot area shall exclude any portion included within the lot description used as a public road or as an access easement for another parcel; provided, that the area of parcels of five acres or greater may be regarded as nominal and may be measured to the center of bounding roads. Easements or restrictions that preclude use to the present or future surface owner of the parcel shall be excluded from lot area.

~~23.1160.130~~ **“M” definitions.**

1. “Maintenance or repair” means those usual activities required to prevent a decline, lapse or cessation from a lawfully established condition or to restore the character, scope, size, and design of a serviceable area, structure, or land use to a state comparable to its previously authorized and undamaged condition. This does not include any activities that change the character, scope, or size of the original structure, facility, utility or improved area beyond the original design.

~~2. “Major development” means any project for which a major project permit is required pursuant to Chapter 20.88 WCC. For the purposes of this program, “major development” shall also mean any project associated with an existing development for which a major development permit has been required or other existing legal nonconforming development for which a major development permit would otherwise be required if developed under the current land use regulations outlined in WCC Title 20.~~

~~3.2.~~ “Marina” means a facility that provides wet moorage and/or dry storage facility for pleasure craft and/or commercial craft where goods, moorage or services related to boating may be sold commercially or provided for a fee, e.g., yacht club, etc. Launching facilities and covered moorage may also be provided. Marinas may be open to the general public or restricted on the basis of property ownership or membership. Manufacturing of watercraft is considered industrial. Shared moorage of 5 or more residential units is considered a marina.

~~4.3.~~ “Marsh” means a low flat wetland area on which the vegetation consists mainly of herbaceous plants such as cattails, bulrushes, tules, sedges, skunk cabbage or other hydrophytic plants. Shallow water usually stands on a marsh at least during part of the year.

~~5.4.~~ “Mass wasting” means downslope movement of soil and rock material by gravity. This includes soil creep, erosion, and various types of landslides, not including bed load associated with natural stream sediment transport dynamics.

~~6.5.~~ “May” means the action is allowable, provided it conforms to the provisions of this program.

~~7.6.~~ “Mean annual flow” means the average flow of a river, or stream (measured in cubic feet per second) from measurements taken throughout the year. If available, flow data for the previous 10 years should be used in determining mean annual flow.

~~8.7.~~ “Mean higher high water” or “MHHW” means the mean elevation of all higher tides, generally occurring twice each day in Whatcom County at any given location on the marine shoreline.

~~9.8.~~ “Mean lower low water” or “MLLW” means the mean elevation of all lower tides, generally occurring twice each day in Whatcom County at any given location on the marine shoreline.

~~10.9.~~ “Mining” means the removal of naturally occurring metallic and nonmetallic minerals or other materials from the earth for ~~economic commercial and other uses.~~

Comment [AP340]: Removed term as it's no longer used.

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- 1 | ~~11-10.~~ “Mitigation” means individual actions that may include a combination of the following
2 | measures, listed in order of preference:
3 | a. Avoiding an impact altogether by not taking a certain action or parts of actions;
4 | b. Minimizing impacts by limiting the degree or magnitude of an action and its implementation;
5 | c. Rectifying impacts by repairing, rehabilitating, or restoring the affected environment;
6 | d. Reducing or eliminating an impact over time by preservation and maintenance operations
7 | during the life of the action;
8 | e. Compensating for an impact by replacing or providing substitute resources or environments;
9 | and
10 | f. Monitoring the mitigation and taking remedial action when necessary.
- 11 | ~~12-11.~~ “Mitigation plan” means a detailed plan indicating actions necessary to mitigate adverse impacts
12 | to critical areas.
- 13 | ~~13-12.~~ “Mixed use” means a combination of uses within the same building or site as a part of an
14 | integrated development project with functional interrelationships and coherent physical design.
- 15 | 13. “Monitoring” means evaluating the impacts of development proposals over time on the biological,
16 | hydrological, pedological, and geological elements of ecosystem functions and processes and/or
17 | assessing the performance of required mitigation measures through the collection and analysis of
18 | data by various methods for the purpose of understanding and documenting changes in natural
19 | ecosystems and features compared to baseline or pre-project conditions and/or reference sites.
- 20 | 14. “Moorage Buoy.” See “Moorage Structure.”
- 21 | 15. “Boat Lift” or lift. See “Moorage Structure.”
- 22 | 16. “Mooring Pile” or piling. See “Moorage Structure.”
- 23 | 17. “Moorage Structure” means any in- or overwater structures, used for mooring, launching, or storing
24 | vessels and may contain any one or combination of the following:
25 | a. Piers and docks adjoin the shoreline, extend over the water, and serve as a landing or
26 | moorage place for commercial, industrial and pleasure watercraft.
27 | i. Piers are built on fixed platforms and sit above the water.
28 | ii. Docks are anchored to the land, substrate or the pier with pilings or anchors and float on
29 | the water.
30 | b. Gangways are walkways that connect the pier to the dock. Gangways are often used in areas
31 | where the water level changes due to tides or seasonal variations.
32 | c. Ells are extensions of piers, often in a U-shape or L shape, that provide additional watercraft
33 | moorage.
34 | d. Recreational floats are platforms that float on the water’s surface. They are anchored offshore
35 | and are used for swimming and fishing. Some floats have components such as slides and
36 | trampolines.
37 | e. Boathouses basically serve as garages for boats. They have walls and a roof, and are situated
38 | on the water or just above the water’s edge.
39 | f. Mooring buoys typically include an anchoring system with an anchor and anchor line, a float
40 | marking its location, and a fitting for a vessel’s mooring chain or hawser. Washington laws

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establish two categories for mooring buoys -- commercial and recreational [RCW 79.105.430].
Commercial buoys are typically used for temporary moorage of a vessel that is awaiting transit
or loading or offloading. Recreational buoys are used as semi-permanent moorage for
recreational vessels.

g. Mooring piles or pilings are fixed poles or groups of poles set in the substrate and extending
above the water line.

h. Lifts or boat lifts raise watercraft out of the water for launching or storing. They may be
attached to the substrate, a pier or dock, bulkhead or float or be located upland.

i. Canopies are covers that protect watercraft from the sun and rain.

j. Boat or launch ramps are solid or relatively solid surfaces that bridge land and water and are
used for moving watercraft into and out of the water.

k. Railways are rails attached to the substrate used for launching and retrieving watercraft,
usually with a cradle and winch system.

l. Others such as Jet Ski floats and boat dry docks provide storage of watercraft out of the water.
Some floats serve as helicopter pads, while others are used for docking seaplanes.

Comment [CES341]: From DOE shoreline
manual.

14. "Multifamily dwelling" means a single building, or portion thereof, designed for or occupied by three
or more families living independently of each other in separate dwelling units on one lot of record
and, for the purpose of this code, includes triplexes, fourplexes, apartment buildings, and residential
condominiums.

Comment [AP342]: Already defined in Title 20
(Zoning).

15-18. "Must" means a mandate; the action is required.

23.160.140 "N" definitions.

1. "Native vegetation" means plant species that are indigenous to the Whatcom County and the local
area.

Comment [AP343]: Already defined in Title 20
(Zoning).

2. "Natural shoreline area environment" means an area designated pursuant to WCC
Chapter 23.320 (Shoreline Jurisdiction and Environment Designations).

3. "Navigable waters" means a waterbody that in its ordinary condition, or by being united with other
water-bodies, forms a continued route or area over which commerce or recreational activities are or
may be carried on in the customary modes in which such commerce or recreation is conducted on
water.

4. "Nearshore habitat" or "nearshore zone" means the area of marine and estuarine shoreline,
generally extending from the top of the shoreline bank or bluff to the depth offshore where light
penetrating the water falls below a level supporting plant growth, and upstream in estuaries to the
head of the tidal influence. It includes bluffs, beaches, mudflats, kelp and eelgrass beds, salt
marshes, gravel spits, and estuaries. zone that extends waterward from the marine shoreline
(OHWM) to a water depth of approximately 20 meters (66 feet). Nearshore habitat is biologically
rich, providing important habitat for a diversity of plant and animal species.

4. "No net loss" as a public policy goal means the maintenance of the aggregate total of the county's
shoreline ecological and/or critical area functions and values at its current level of environmental
resource productivity. As a development and/or mitigation standard, no net loss requires that the

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impacts of a particular shoreline development and/or use, whether permitted or exempt, be identified and prevented or mitigated, such that it has no resulting adverse impacts on shoreline ecological functions or ~~processes~~ values. Each project shall be evaluated based on its ability to meet the no net loss standard commensurate with its scale and character.

5. “Nonconforming lot” means, for the purposes of WCC 23.50.070(K) and 23.90.060(B)(3), a vacant lot under contiguous ownership and with less than a total of 20,000 square feet, including within shoreline jurisdiction, a lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program.
5. that was lawfully established prior to the effective date of this program (August 27, 1976) or amendments hereto, but which does not conform to the setback or buffer standards of this program.
6. “Nonconforming structure” means an existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program.
7. “Nonconforming use,” “nonconforming development” or “nonconforming structure” means an existing shoreline use, development or structure that was lawfully constructed or established prior to the effective date of initial adoption of this program (August 27, 1976) or any applicable amendments thereafter hereto, but which does not conform to present use regulations due to subsequent changes to or standards of the master program.
8. “Non-water-oriented use” means uses that are not water-dependent, water-related or water-enjoyment. Non-water-oriented uses have little or no relationship to the shoreline and are not considered priority uses under the Shoreline Management Act except single-family residences. Any use that does not meet the definition of water-dependent, water-related or water-enjoyment is classified as non-water-oriented.

23.160.150 “O” definitions.

16. “Off premises sign” means a sign situated on premises other than those premises to which the sign’s message is related.
1. “Oil” means petroleum or any petroleum product in liquid, semi-liquid, or gaseous form including, but not limited to, crude oil, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredging spoil. See Fossil Fuels.
2. “Ongoing agriculture” means those activities conducted on lands defined in RCW 84.34.020(2), and those activities involved in the production of crops and livestock, including, but not limited to, operation and maintenance of existing farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use, or has lain idle for more than five consecutive years unless that idle land is

Comment [AP344]: Differentiating nonconforming lots, structures, and uses per Periodic Review Checklist, Item 2017.g, and Scoping Document, Item #2d and 10a.

Comment [AP345]: Already defined in Title 20 (Zoning).

Comment [DN346]: Added per Council’s pending draft fossil fuel amendments.

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registered in a federal or state soils conservation program. Forest practices are not included in this definition.

~~3. "On premises sign" means a sign situated on the premises to which the sign's message is related.~~

Comment [AP347]: Already defined in Title 20 (Zoning).

~~4.3. "Open space" means any parcel or area of land or water not covered by structures, hard surfacing, parking areas and other impervious surfaces except for pedestrian or bicycle pathways, or where otherwise provided by this title or other County ordinance and set aside or dedicated for active or passive recreation, visual enjoyment, or critical area development buffers as established in WCC Chapter 16.16. Submerged lands and/or tidelands within the boundaries of any waterfront parcel that are located waterward of the ordinary high water mark shall not be used in open space calculations. Required open space percentages, as applicable, are not to be used for purposes of calculating total impervious surface.~~

~~5.4. "Ordinary high water mark (OHWM)" or "OHWM" means the mark or line on all lakes, rivers, streams, and tidal water means that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition existed on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with approved development; provided, that in any area where the OHWM cannot be found, the OHWM adjoining saltwater shall be the line of mean higher high tide and the OHWM adjoining fresh water shall be the line of mean high water. For braided streams, the OHWM is found on the banks forming the outer limits of the depression within which the braiding occurs.~~

~~23.1160.160 "P" definitions.~~

- ~~1. "Party of record" means all persons, agencies or organizations who have submitted written comments in response to a notice of application; made oral comments in a formal public hearing conducted on an application; or notified local government of their desire to receive a copy of the final decision on a permit and who have provided an address for delivery of such notice by mail.~~
- ~~2. "Permit or approval" means any form or permission required under this program prior to undertaking activity on shorelines of the state, including substantial development permits, variance permits, shoreline conditional use permits, permit revisions, and shoreline exemptions from the substantial development permit process.~~
- ~~3. "Person" means any individual, trustee, executor, other fiduciary, corporation, firm, partnership, association, organization, or other entity, either public or private, acting as a unitan individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, state agency or local governmental unit, however designated, or Indian nation or tribe.~~
- ~~4. "Pier." See "Moorage Structure." means any platform structure, fill, or anchored device in or floating upon waterbodies and extending waterward from ordinary high water to provide moorage for industrial, commercial, and/or pleasure watercraft engaged in commerce, including, but not limited to: wharves, mono-buoys, sea islands, quays, ferry terminals, and fish weighing stations.~~

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5. ~~“Planned unit development (PUD)” means one or a group of specified uses, such as residential, resort, commercial or industrial, to be planned and constructed as a unit. Zoning or subdivision regulations with respect to lot size, building bulk, etc., may be varied to allow design innovations and special features in exchange for additional and/or superior site amenities or community benefits.~~
- 6-5. “Pocket beach” means an isolated beach existing usually without benefit of littoral drift from sources elsewhere. Pocket beaches are produced by erosion of immediately adjacent bluffs or banks and are relatively scarce and therefore valuable shoreforms in Whatcom County; they are most common between rock headlands and may or may not have a backshore.
- 7-6. “Point” means a low profile shore promontory that may be either the wave-cut shelf remaining from an ancient bluff or the final accretional phase of a hooked spit that closed the leeward side gap. Points are accretion shoreforms characterized by converging berms accreted by storm waves that enclose a lagoon, marsh, or meadow, depending on the point’s development stage.
- 8-7. “Point bar” means an accretion shoreform created by deposition of sand and gravel on the inside, convex side of a meander bend. Most material is transported downstream as sediment and bedload at times of high current velocity, or flood stage, from eroding banks or other bars upstream.
- 9-8. “Pond” means an open body of water, generally equal to or greater than 6.6 feet deep, that persists throughout the year and occurs in a depression of land or expanded part of a stream and has less than 30 percent aerial coverage by trees, shrubs, or persistent emergent vegetation. Ponds are generally smaller than lakes. Farm ponds are excluded from this definition. Beaver ponds that are two years old or less are excluded from this definition. For the purpose of this program, any pond whose surface water extends into the OHWM of any shoreline of the state shall be considered part of that shoreline of the state.
- 10-9. “Port development” means public or private facilities for transfer of cargo or passengers from water-borne craft to land and vice versa, including, but not limited to: piers, wharves, sea islands, commercial float plane moorages, offshore loading or unloading buoys, ferry terminals, and required dredged waterways, moorage basins, and equipment for transferring cargo or passengers between land and water modes. Excluded from this definition and addressed elsewhere are airports, marinas, boat ramps or docks used primarily for recreation, cargo storage and parking areas not essential for port operations, boat building or repair. The latter group is considered industrial or accessory to other uses. This definition excludes fossil or renewable fuel transshipment facilities.
- 11-10. “Potable” means water that is suitable for drinking by the public (Chapter 246-290 WAC).
- 12-11. “Preservation” means actions taken to ensure the permanent protection of existing, ecologically important areas that the County has deemed worthy of long-term protection.
- 13-12. “Primary association” means the use of a habitat area by a listed or priority species for breeding/spawning, rearing young, resting, roosting, feeding, foraging, and/or migrating on a frequent and/or regular basis during the appropriate season(s), as well as habitats that are used less frequently/regularly but which provide for essential life cycle functions such as breeding, nesting, or spawning.

Comment [AP348]: Already defined in Title 20 (Zoning).

Comment [DN349]: Added per Council’s pending draft fossil fuel amendments.

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- 1 | ~~14.13.~~ “Priority habitat” means a habitat type with unique or significant value to one or more species.
2 | An area classified and mapped as priority habitat must have one or more of the following attributes:
3 | comparatively high fish or wildlife density; comparatively high fish or wildlife species diversity; fish
4 | spawning habitat; important wildlife habitat; important fish or wildlife seasonal range; important
5 | fish or wildlife movement corridor; rearing and foraging habitat; important marine mammal
6 | haulout; refuge; limited availability; high vulnerability to habitat alteration; unique or dependent
7 | species; or shellfish bed. A priority habitat may be described by a unique vegetation type or by a
8 | dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or
9 | eelgrass meadows). A priority habitat may also be described by a successional stage (such as old
10 | growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat
11 | element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value
12 | to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife
13 | (WAC 173-26-020(24)).
- 14 | ~~15.14.~~ “Priority species” means wildlife species of concern due to their population status and their
15 | sensitivity to habitat alteration, as defined by the Washington Department of Fish and Wildlife.
- 16 | ~~16.15.~~ “Private dock” means a dock and/or float for pleasure craft moorage or water recreation for
17 | exclusive use by one waterfront lot owner.
- 18 | ~~17.16.~~ “Private sign” means a sign used on a private residence to indicate only the owner’s name or
19 | address, that the premises are for rent or sale, or for other reasonable purposes related to
20 | residential use including permitted home occupations.
- 21 | ~~18.17.~~ “Project” means any proposed or existing activity regulated by Whatcom County.
- 22 | ~~19.~~ “Project permit” or “project permit application” means any land use or environmental permit or
23 | approval required by Whatcom County, including, but not limited to, building permits, subdivisions,
24 | binding site plans, planned unit developments, conditional uses, shoreline substantial development
25 | permits, variances, lot consolidation relief, site plan review, permits or approvals authorized by a
26 | comprehensive plan or subarea plan.
- 27 | ~~20.~~ “Projecting sign” means a sign that is attached to and projects at an angle from a building’s exterior
28 | wall.
- 29 | ~~21.18.~~ “Public access” means the public’s right to get to and use the state’s public waters, both
30 | saltwater and freshwater, the water/land interface and associated shoreline area environment. It
31 | includes physical access that is either lateral (areas paralleling the shore) or perpendicular (an
32 | easement or public corridor to the shore), and/or visual access facilitated by means such as scenic
33 | roads and overlooks, viewing towers and other public sites or facilities.
- 34 | ~~22.19.~~ “Public interest” means the interest shared by the citizens of the state or community at large in
35 | the affairs of government, or some interest by which their rights or liabilities are affected including,
36 | but not limited to, an effect on public property or on health, safety, or general welfare resulting
37 | from adverse effects of a use or development.
- 38 | ~~23.~~ “Public utility” means a use owned or operated by a public or publicly licensed or franchised agency
39 | that provides essential public services such as telephone exchanges, electric substations, radio and

Comment [AP350]: Already defined in Title 20 (Zoning).

Comment [CES351]: Already defined in Title 20 (Zoning).

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television stations, wireless communications services, gas and water regulation stations, and other facilities of this nature.

Comment [AP352]: Already defined in Title 20 (Zoning).

23.1160.170 “Q” definitions.

~~1. “Qualified professional” or “qualified consultant.” See WCC 16.16 (Critical Areas). means a person with experience and training with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, soil science, engineering, environmental studies, fisheries, geology, geomorphology or related field, and related work experience and meet the following criteria:~~

~~a. A qualified professional for wetlands must have a degree in biology, ecology, soil science, botany, or a closely related field and a minimum of three years of professional experience in wetland identification and assessment associated with wetland ecology in the Pacific Northwest or comparable systems.~~

~~b. A qualified professional for habitat conservation areas must have a degree in wildlife biology, ecology, fisheries, or closely related field and a minimum of three years’ professional experience related to the subject species/habitat type.~~

~~c. A qualified professional for geologically hazardous areas must be a professional engineering geologist or geotechnical engineer, licensed in the state of Washington.~~

~~2.1. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydrogeologist, geologist, or engineer.~~

23.1160.180 “R” definitions.

1. “Recharge” means the process involved in the absorption and addition of water from the unsaturated zone to ground water.
2. “Recreation” means an experience or activity in which an individual engages for personal enjoyment and satisfaction. Most shore-based recreation includes outdoor recreation such as: fishing, hunting, clamming, beach combing, and rock climbing; various forms of boating, swimming, hiking, bicycling, horseback riding, camping, picnicking, watching or recording activities such as photography, painting, bird watching or viewing of water or shorelines, nature study and related activities.
3. “Recreational development” means the modification of the natural or existing environment to accommodate recreation. This includes clearing land, earth modifications, structures and other facilities such as parks, camps, camping clubs, launch ramps, golf courses, viewpoints, trails, public access facilities, public parks and athletic fields, hunting blinds, wildlife enhancement (wildlife ponds are considered excavation), and other low intensity use outdoor recreation areas. Recreational homes/condominiums and related subdivisions of land are considered residential; resorts, motels, hotels, recreational vehicle parks, intensive commercial outdoor or indoor recreation, and other commercial enterprises are considered commercial.
4. “Recreational Float.” See “Moorage Structure.”
- ~~4.5. “Reestablishment” means measures taken to intentionally restore an altered or damaged natural feature or process including:~~

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- a. Active steps taken to restore damaged wetlands, streams, protected habitat, and/or their buffers to the functioning condition that existed prior to an unauthorized alteration;
 - b. Actions performed to reestablish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, or other events; and
 - c. Restoration can include restoration of wetland functions and values on a site where wetlands previous existed, but are no longer present due to lack of water or hydric soils.
5. "Rehabilitation" means a type of restoration action intended to repair natural or historic functions and processes. Activities could involve breaching a dike to reconnect wetlands to a floodplain or other activities that restore the natural water regime.
6. "Renewable biomass" includes but is not limited to the following:
- a. Planted crops and crop residue harvested from agricultural land.
 - b. Planted trees and tree residue from a tree plantation.
 - c. Animal waste material and animal byproducts.
 - d. Slash and pre-commercial thinnings.
 - e. Organic matter that is available on a renewable or recurring basis.
 - f. Algae.
 - g. Separated yard waste or food waste, including recycled cooking and trap grease.
 - ~~a-h.~~ Items a through g including any incidental, de minimis contaminants that are impractical to remove and are related to customary feedstock production and transport.
7. "Renewable Fuel" means liquid fuels produced from renewable biomass and limited in terms of blending with fossil fuels. Common renewable fuels include ethanol and biodiesel:
- a. "E85 motor fuel" means an alternative fuel that is a blend of ethanol and hydrocarbon of which the ethanol portion is nominally seventy-five to eighty-five percent denatured fuel ethanol by volume that complies with the most recent version of American society of testing and materials specification D 5798.
 - b. "Renewable diesel" means a diesel fuel substitute produced from nonpetroleum renewable sources, including vegetable oils and animal fats, that meets the registration requirements for fuels and fuel additives established by the federal environmental protection agency in 40 Code of Federal Regulations (C.F.R.) Part 79 (2008) and meets the requirements of American society of testing and materials specification D 975.
 - c. Renewable fuels shall include those designed to result in a lifecycle greenhouse gas emission reduction of at least 50% or more under the Federal Clean Air Act. Renewable fuels shall not include products produced from palm oil or other feedstocks that cannot be proven to reduce greenhouse gas emissions utilizing accepted methods of the Washington State Department of Ecology or US EPA.
- ~~5-8.~~ "Renewable Fuel Refinery" means a facility that processes or produces renewable fuels. This definition excludes Small Fossil or Renewable Fuel Storage and Distribution Facilities.

Comment [P/C353]: Deleted by the P/C during their deliberations on concurrent fossil fuel regulations in Title 20, since federal regulations may be amended over time.

Comment [DN354]: Added per Council's pending draft fossil fuel amendments.

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6-9. “Renovate” means to restore to an earlier condition as by repairing or remodeling. Renovation shall include any interior changes to a building and those exterior changes that do not substantially change the character of an existing structure.

7-10. “Residential development” means ~~buildings, earth modifications, development subdivision and~~ use of land primarily for human residence, including, but not limited to: single-family and multifamily dwellings, condominiums, mobile homes and mobile home parks, boarding homes, family daycare homes, adult family homes, retirement and convalescent homes, bed and breakfasts, and vacation rental units, together with accessory uses common to normal residential use. Camping sites or clubs, recreational vehicle parks, motels, and hotels, ~~and other transient housing~~ are not included in this definition.

Comment [CES355]: Incorporated from Resolution 2016-039, Council’s action on short-term rentals.

11. “Resource shoreline ~~area~~ environment” means an area designated pursuant to WCC Chapter 23.230 (Shoreline Jurisdiction and Environment Designations).

8-12. “Responsible Party” or “Party Responsible.” The “responsible party” shall be assumed, in singular or plural, to be any individual, business, organization, or entity, property owner, or person having control of a property who has created or allowed to exist a violation of any applicable regulations, whether or not the violation is known to that person at the time the violation occurred or is occurring. A responsible party includes any person who aids, assists, or perpetuates a violation.

9-13. “Restore,” “restoration” or “ecological restoration” means the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures, and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline ~~area~~ environment to aboriginal or pre-European settlement conditions.

10-14. “Revetment” means a ~~sloped wall~~ sloping structure built to protect a scarp, embankment, or shore against erosion by waves or currents. Usually built of riprap, with heavy armor layer, one or more filter layers of smaller rock or filter cloth, and “toe” protection. A revetment slopes shoreward and has a rough or jagged face. Its sloping face absorbs wave energy and differentiates it from a bulkhead, which is a near vertical structure. ~~constructed of riprap or other suitable material placed on stream banks or other shorelines to retard bank erosion and minimize lateral stream movement.~~

Comment [CES356]: Updated to be more accurate.

11-15. “Riprap” means dense, hard, angular rock free from cracks or other defects conducive to weathering used for revetments or other flood control works.

12-16. “Riparian zone” means the area adjacent to a waterbody (stream, lake or marine water) that contains vegetation that influences the aquatic ecosystem, nearshore area and/or fish and wildlife habitat by providing shade, fine or large woody material, nutrients, organic debris, sediment filtration, and terrestrial insects (prey production). Riparian areas include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (i.e., zone of influence). Riparian zones provide important wildlife habitat. They provide sites for foraging, breeding and nesting; cover to escape predators or weather; and corridors that connect different parts of a watershed for dispersal and migration.

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- 13-17. "Riparian vegetation" means vegetation that tolerates and/or requires moist conditions and periodic free-flowing water, thus creating a transitional zone between aquatic and terrestrial habitats which provides cover, shade and food sources for aquatic and terrestrial insects for fish species. Riparian vegetation and their root systems stabilizes stream banks, attenuates high water flows, provides wildlife habitat and travel corridors, and provides a source of limbs and other woody debris to terrestrial and aquatic ecosystems, which, in turn, stabilize stream beds.
- 14-18. "River delta" means those lands formed as an aggradational feature by stratified clay, silt, sand and gravel deposited at the mouths of streams where they enter a quieter body of water. The upstream extent of a river delta is that limit where it no longer forms distributary channels.
- 15-19. "Rock shore" means those shorelines whose bluffs and banks are typically composed of natural rock formations.
- 16-20. "Roof sign" means a sign erected upon, against, or directly above a roof, or on top of or above the parapet of a building; signs on mansard roofs shall be considered wall signs.
- 17-21. "Rural shoreline area environment" means an area designated pursuant to WCC Chapter 23.230 (Shoreline Jurisdiction and Environment Designations).
- 23.1160.190 "S" definitions.**
1. "Seismic hazard areas" means areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.
 2. "Shall" means a mandate; the action must be done.
 3. "Shared moorage" means moorage for pleasure craft and/or landing for water sports for use in common by shoreline residents of a certain subdivision or community within shoreline jurisdiction or for use by patrons of a public park or quasi-public recreation area, including rental of non-powered craft. If a shared moorage provides commercial services or is of a large scale (~~more than~~ four or more slips), it shall be considered a marina. Shared moorage proposed to be leased to upland property owners shall also be considered as a marina. If a proposal includes covered moorage, commercial sale of goods or services, or a means of launching other than a ramp, swinging boom, or davit style hoist, it shall be considered a marina.
 4. "Shellfish" means invertebrates of the phyla Arthropoda (class Crustacea), Mollusca (class Pelecypoda) and Echinodermata.
 5. "Shellfish habitat conservation areas" means all public and private tidelands suitable for shellfish, as identified by the Washington Department of Health classification of commercial growing areas, and those recreational harvest areas as identified by the Washington Department of Ecology are designated as shellfish habitat conservation areas pursuant to WAC 365-190-080. Any area that is or has been designated as a shellfish protection district created under Chapter 90.72 RCW is also a shellfish habitat conservation area.
 6. "Shellfish protection district" means the Drayton Harbor shellfish protection district (DHSPD) (Ordinance 95-036) and the Portage Bay shellfish protection district (PBSPD) (Ordinance 98-069), or other area formed by the County based on RCW Title 90, in response to State Department of Health (DOH) closures or downgrades of a commercial shellfish growing area due to a degradation of water

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- quality as a result of pollution. These areas include the watershed draining to the shellfish beds as part of the shellfish habitat conservation area.
7. “Shorelands” or “shoreland areas” means those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters which are subject to the provisions of Chapter 90.58RCW.
8. “Shorelines” means all of the water areas of the state as defined in RCW 90.58.030, including reservoirs and their associated shorelands, together with the lands underlying them except:
- Shorelines of statewide significance;
 - Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and
 - Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.
9. “Shoreline Administrator” means the Director of the Department of Planning and Development Services ~~Department~~, or his/her designee, who is authorized to carry out the administrative duties enumerated in this program ~~or staff member designated by the director to perform the review functions required in this program.~~
10. “Shoreline Conditional Use” for the purposes of this program means a use, development or substantial development listed in the regulations as being permitted only as a shoreline conditional use, or not classified in this program. Shoreline Conditional uses are subject to review and approval pursuant to the criteria in WCC Chapter 23.60 Title 22 (Land Use and Development) regardless of whether or not the proposal requires a substantial development permit.
11. “Shoreline jurisdiction” means all “shorelines of the state” and “shorelands.”
12. “Shoreline permit” means a shoreline substantial development permit, a shoreline conditional use, or a shoreline variance, or any combination thereof issued by Whatcom County pursuant to Chapter 90.58 RCW.
13. “Shoreline residential ~~area~~ environment” means an area designated pursuant to WCC Chapter 23.240 (Shoreline Jurisdiction and Environment Designations).
14. “Shoreline stabilization” means structural or nonstructural modifications to the existing shoreline intended to reduce or prevent erosion of uplands or beaches. They are generally located parallel to the shoreline at or near the OHWM. Other construction classified as shore defense works include groins, jetties and breakwaters, which are intended to influence wave action, currents and/or the natural transport of sediments along the shoreline.
15. “Shoreline stabilization, bioengineered” means biostructural and biotechnical alternatives to hardened structures (bulkheads, walls) for protecting slopes or other erosive features including soft-treatment techniques. Bioengineered stabilization uses vegetation reinforced soil slopes (VRSS), which uses vegetation arranged embedded in the ground to prevent shallow mass-movements and surficial erosion.
16. “Shoreline stabilization, nonstructural” means a soft treatment which does not use driftwood, logs, geotextile fabric, or other organic or nonorganic structural materials. Examples include:

Comment [AP357]: Relocated from “Conditional Use.”

Comment [CES358]: All shoreline stabilization definitions from WAC and DOE guidance.

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- a. Addressing upland drainage issues;
 - b. Planting stabilization vegetation without fill, grading, or use of nonbiodegradable geotextile fabric, gabions or other stabilizing structures to provide temporary erosion control.
17. “Shoreline stabilization, replacement” means the construction of a new structure to perform a shoreline stabilization function of an existing legally established shoreline stabilization structure which can no longer adequately serve its purpose. Where ordinary high water has established behind the structure replacement is considered a new shoreline stabilization.
18. “Shoreline stabilization, soft-treatment” means shore erosion control and restoration practices using only plantings or organic materials to restore, protect or enhance the natural shoreline environment. This technique mimics natural conditions for ecological functions and ecosystem-wide processes. When used, organic/biodegradable structural components are to be placed to avoid significant disruption of sediment recruitment, transportation, and accretion. Examples include:
 - a. Bioengineered shoreline stabilization;
 - b. Beach nourishment/replenishment;
 - c. Vegetated soil stabilization retention methods;
 - d. Driftwood;
 - e. Coir fiber logs or other natural materials;
 - f. Nonstructural shoreline stabilization;
 - g. Beach berm.
19. “Shoreline stabilization, hard structure” means shore erosion control practices using hardened structures that armor and stabilize the shoreline landward of the structure from further erosion.
20. “Shoreline stabilization, hybrid structure” means an approach to erosion control that combines soft-treatment shoreline treatment placed waterward of more conventional structural shoreline stabilization elements. The soft treatment preserves natural beach contours and mimics habitat structure in order to preserve ecological functions. The hard structure provides long-term stability to the upland site, but is located sufficiently landward of the OHWM as not to impair ecological processes.
21. Shoreline Stabilization, New. Placement of shoreline stabilization where no such structure previously existed, including additions to or increases in size of existing shoreline stabilization measures, are considered new structures.
22. “Shoreline stabilization, structural” means shoreline stabilization which includes a footing, foundation, or anchors. Materials are typically hardened structures which armor the shoreline. See also “shoreline stabilization, hard structure” and “shoreline stabilization, hybrid structure.”
- ~~15-23.~~ 23. “Shoreline view area” means any area looking waterward within the jurisdiction of this program between the OHWM and a public road, park, pathway, or other public area that is undeveloped or developed with accessory uses only; and that does not obstruct the view of the shoreline or would not obstruct the view if natural vegetation, fences, walls, antennas or similar obstructions were removed.
- ~~16-24.~~ 24. “Shorelines of statewide significance” means the following shorelines in Whatcom County:
 - a. Those areas of Puget Sound and adjacent saltwaters between the ordinary high water mark and the line of extreme low tide as follows: Birch Bay from Point Whitehorn to Birch Point; and

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- b. Those areas of Puget Sound and adjacent saltwaters north to the Canadian line and lying waterward from the line of extreme low tide; and
- c. Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of 1,000 acres or more measured at the ordinary high water mark including Lakes Whatcom, Baker and Ross; and
- d. Those natural rivers or segments thereof as follows: any west of the crest of the Cascade range downstream of a point where the mean annual flow is measured at 1,000 cubic feet per second or more; including the Nooksack River's mainstream, the North Fork upstream to its confluence with Glacier Creek in Section 6, Township 39 North, Range 7 East, W.M.; and the South Fork upstream to its confluence with Hutchinson Creek in Section 9, Township 37 North, Range 5 East, W.M.
- e. Shoreline jurisdiction associated with subsections ~~(15)~~(a), (c), and (d) of this section.
25. "Shorelines of the state" means the total of all "shorelines" and "shorelines of statewide significance" within the state.
- ~~17-26.~~ 26. "Short-term rental" means a dwelling unit where the owner is not present on site during the rental period, which, for compensation, is used to lodge individuals or families for a period of less than 30 days.
- ~~18-27.~~ 27. "Should" means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Act and this chapter, against taking the action.
- ~~19-28.~~ 28. "Sign" means any placard, billboard, display, message, design, letters, symbol, light, figure, illustration, set of pennants, or other device intended to identify, inform, advertise, or attract attention to any private or public premises, and placed mainly outdoors so as to be seen from any public or quasi-public place. Double-faced signs are counted as two signs. Excluded from this definition are official traffic, directional or warning devices, other official public notices, signs required by law, or flag of a government or other noncommercial institution.
- ~~20-29.~~ 29. "Significant vegetation removal" means the removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, burning, chemical means, or other activity that causes significant impacts to ecological functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.
- ~~21-30.~~ 30. "Single-family development" means the development of a single-family residence permanently installed and served with utilities on a lot of record.
- ~~22-31.~~ 31. "Site" means any parcel or combination of contiguous parcels, or right-of-way or combination of contiguous rights-of-way under the applicant's/proponent's ownership or control that is the subject of a development proposal or change in use.
- ~~23-32.~~ 32. "Slope" means:
- a. Gradient.
- b. The inclined surface of any part of the earth's surface delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

Comment [CES359]: Incorporated from Resolution 2016-039, Council's action on short-term rentals.

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33. "Small Fossil or Renewable Fuel Storage and Distribution Facilities" means:

- a. Equipment and buildings used for purposes of direct sale or distribution to consumers of fossil fuels or renewable fuels, or
- b. Accessory equipment that supplies fossil fuels or renewable fuels to an onsite allowed commercial or industrial operation, and that does not meet the definitions of fossil fuel or renewable refinery or transshipment facilities

Comment [P/C360]: Added by the P/C during their deliberations on concurrent fossil fuel regulations in Title 20.

~~24-34.~~ "Soil" means all unconsolidated materials above bedrock described in the Soil Conservation Service Classification System or by the Unified Soils Classification System.

~~25-35.~~ "Solid waste" means all putrescible and non-putrescible solid and semi-solid waste including garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles and parts thereof, and any other discarded commodities.

36. "Spit" means an accretion shoreform that is narrow in relation to length and extends parallel to or curves outward from shore; spits are also characterized by a substantial wave-built sand and gravel berm on the windward side, and a more gently sloping silt or marsh shore on the lagoon or leeward side; curved spits are called hooks.

37. "Standing" is the status required for a person, agency, or other entity to bring an action before an appeal body. A person has standing per RCW 36.70C.060 if they are:

- a. The applicant and the owner of property to which the land use decision is directed; or
- b. Another person, county department, and/or public agency aggrieved or adversely affected by the land use decision, or who would be aggrieved or adversely affected by a reversal or modification of the land use decision. A person is aggrieved or adversely affected within the meaning of this section only when all of the following conditions are present:
 - i. The land use decision has prejudiced or is likely to prejudice that person;
 - ii. That person's asserted interests are among those that the local jurisdiction was required to consider when it made the land use decision;
 - iii. A judgment in favor of that person would substantially eliminate or redress the prejudice to that person caused or likely to be caused by the land use decision; and
 - iv. The petitioner has exhausted his or her administrative remedies to the extent required by law.

Comment [DN361]: Added per Council's pending draft fossil fuel amendments.

~~26-38.~~ "Statement of exemption" means a written statement by the administrator/Director that a particular development proposal is exempt from the substantial development permit requirement and is generally consistent with this program including the policy of the Act (RCW 90.58.020), pursuant to WCC ~~23.60.020~~ Title 22 (Land Use and Development).

~~27-39.~~ "Streams" means those areas where surface waters produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the annual passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined channel swales. The channel or bed need not contain water year-round. This definition includes drainage ditches or other artificial water courses where natural streams existed prior to human alteration, and/or the waterway is used by anadromous or resident salmonid or other fish populations or flows directly into shellfish habitat conservation areas.

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- 1 ~~28.40.~~ “Strict construction” means an interpretation that considers only the literal words of a writing.
- 2 ~~29.41.~~ “Structure” means a permanent or temporary building or edifice of any kind, or any piece of
- 3 work artificially built up or composed of parts joined together in some definite matter whether
- 4 installed on, above, or below the surface of the ground or water, except for vessels ~~(after~~
- 5 ~~International Building Code).~~
- 6 ~~30.42.~~ “Substantial development” means any development of which the total cost or fair market value
- 7 exceeds \$5,718 or as amended by the State Office of Financial Management, or any development
- 8 which ~~that~~ materially interferes with the normal public use of the water or shorelines of the state;
- 9 except the classes of development, listed in ~~WCC 23.60.022(A) through (P); WAC 173-27-040.~~
- 10 ~~31.43.~~ “Substantially degrade” means to cause significant ecological impact.
- 11 ~~32.~~ “Surface mining” means all or any part of the processes involved in mining by removing the soil or
- 12 rock overburden and mining directly from deposits thereby exposed, including also open pit mining,
- 13 gravel bar scalping and mining of deposits naturally exposed at earth’s surface, and including
- 14 production of surface mining refuse.
- 15 ~~33.44.~~ “Sustained yield” means the continuing yield of a biological resource, such as timber from a
- 16 forest, by controlled and periodic harvesting.
- 17 ~~34.45.~~ “Swamp” means a wetland that is often inundated and composed of woody vegetation.
- 18 **23.1160.200 “T” definitions.**
- 19 1. “Tideland” means the land on the shore of marine water-bodies between OHWM and the line of
- 20 extreme low tide which is submerged daily by tides.
- 21 2. “Timber” means forest trees, standing or down, of a commercial species, including Christmas trees.
- 22 3. “Toe” means the lowest part of a slope or cliff; the downslope end of an alluvial fan, landslide, etc.
- 23 4. “Tombolo” means an accretion shoreform that began as a spit and accreted into a causeway-like
- 24 connection to an island or offshore rock; tombolos normally develop from offshore bars (submarine
- 25 berms) that build up in a low energy “wave-shadow” zone between the offshore, wave barrier
- 26 element and an active driftway.
- 27 5. “Top” means the top of a slope; or in this program it may be used as the highest point of contact
- 28 above a landslide hazard area.
- 29 6. “Transportation” means roads and railways, related bridges and culverts, fills, embankments,
- 30 causeways, parking areas, truck terminals and rail switchyards, sidings, spurs, and air fields. Not
- 31 included are recreational trails, highway rest areas, ship terminals, seaplane moorages, nor logging
- 32 roads; they are included respectively under “recreation,” “pier,” “dock,” “residential,” and “forest
- 33 practices.”
- 34 **23.1160.210 “U” definitions.**
- 35 1. “Unavoidable” means adverse impacts that remain after all appropriate avoidance and minimization
- 36 measures have been implemented.
- 37 2. “Upland” means dry lands landward of OHWM.
- 38 3. “Urban conservancy shoreline ~~area~~ environment” means an area designated pursuant to WCC
- 39 Chapter ~~23.30-23.20~~ 23.20 (Shoreline Jurisdiction and Environment Designations).

Comment [AP362]: Updated per Periodic Review Checklist, Items 2019.a, 2017.a, and 2016.a, and Scoping Document, Item #1a and 1e.

Comment [AP363]: Already defined in Title 20 (Zoning).

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4. “Urban resort shoreline ~~area~~ environment” means an area designated pursuant to WCC Chapter ~~23.30~~ 23.20 (Shoreline Jurisdiction and Environment Designations).
5. “Urban shoreline ~~area~~ environment” means an area designated pursuant to WCC Chapter ~~23.30~~ 23.20 (Shoreline Jurisdiction and Environment Designations).
6. “Utilities” means all lines and facilities used to distribute, collect, transmit, or control electrical power, natural gas, petroleum products, information (telecommunications), water, and sewage.
- a. “Accessory utilities” means on-site utility features such as a water, sewer, septic, electrical, or gas lines serving a primary use. Accessory utilities shall be considered part of the primary use.
- b. “Local utilities” means utilities that serve adjacent properties and include, but are not limited to, powerlines, water, sewer, and stormwater facilities, fiber optic cable, pump stations and hydrants, switching boxes, and other structures normally found in a street right-of-way.
- c. “Regional utilities” means utilities that serve more than one community or major attractions; examples include, but are not limited to, two hundred thirty (230) kv power transmission lines, natural gas transmission lines, and regional water storage tanks and reservoirs, regional water transmission lines or regional sewer collectors and interceptors. Regional utilities may also include facilities serving an entire community, such as subregional switching stations (one hundred fifteen (115) kv and smaller), and municipal sewer, water, and storm water facilities. Regional utilities include regional transmission pipelines for the bulk conveyance of natural gas, or pipelines termed a distribution pipeline but having characteristics that fit the definition of a transmission pipeline. Natural gas pipelines which are owned and operated by a gas utility company regulated by the State Utilities and Transportation Commission and which are distribution lines owned by the utility that provide natural gas service directly to county citizens and businesses shall not be considered regional transmission lines.
- 6-7. “Utility development” means development including, but not limited to, facilities for distributing, processing, or storage of water, sewage, solid waste, storm drainage, electrical energy including electronic communications, and their administrative structures, as well as pipelines for petroleum products, and fire-fighting facilities. Power plants are considered industrial.
- 23.1160.220 “V” definitions.-**
1. “Vacation Rental Unit” means a single-family dwelling unit, detached accessory dwelling unit, or accessory apartment that, for compensation, is rented as a single unit used to lodge individuals or families for a period of less than 30 days and where the owner is not present in the rented unit during the rental period. Individual sleeping rooms shall not be rented individually.
- 1-2. “Variance” means an adjustment in the application of this program’s bulk and dimensional regulations to a particular site pursuant to WCC ~~Chapter 23.60~~ Title 22 (Land Use and Development).
- 2-3. “Vegetative stabilization” means planting of vegetation to retain soil and retard erosion, reduce wave action, and retain bottom materials. It also means utilization-use of temporary structures or netting to enable plants to establish themselves in unstable areas.
- 3-4. “Vessel” means a floating structure that is designed primarily for navigation, is normally capable of self-propulsion and use as a means of transportation, and meets all applicable laws and regulations

Comment [AP364]: Language from WCC 20.82.030(2).

Comment [CES365]: Definitions added per Scoping Document, Item #7b to distinguish different levels of utility facilities.

Comment [CES366]: Incorporated from Resolution 2016-039, Council’s action on short-term rentals.

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pertaining to navigation and safety equipment on vessels, including, but not limited to, registration as a vessel by an appropriate government agency. -

23.1160.230 “W” definitions.

~~1. “Wall sign” means a sign placed upon and parallel to the exterior of a building.~~

Comment [AP367]: Already defined in Title 20 (Zoning).

~~2.1. “Waterbody” means a body of still or flowing water, fresh or marine, bounded by the OHWM.~~

~~3.2. “Water-dependent use” means a use or portion of a use that requires direct contact with the water and cannot exist at a non-water location due to the intrinsic nature of its operations.~~

~~4.3. “Water-enjoyment use” means a recreational use, or other use facilitating public access to the shoreline as the primary character of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general character of the use and that through the location, design and operation assure the public’s ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the water-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.~~

~~5.4. “Water-oriented use” means any one or a combination of water-dependent, water-related or water-enjoyment uses and serves as an all-encompassing definition, together with single-family residences, for priority uses under the Act.~~

~~6.5. “Water quality” means the characteristics of water, including flow or amount, and related physical, chemical, aesthetic, recreation-related, and biological characteristics.~~

~~7.6. “Water-related use” means a use or portion of a use that is not intrinsically dependent on a waterfront location but depends upon a waterfront location for economic viability. These uses have a functional relationship to the water, or the use provides a necessary support service for a water-dependent use and physical separation is not feasible.~~

~~8.7. “Watershed” means a geographic region within which water drains into a particular river, stream or body of water. There are approximately 122 watersheds (e.g., Bertrand, Ten Mile, Dakota, Canyon Creek, Lake Whatcom, Lake Samish) identified in WRIA 1 and WRIA 3. These are nested within approximately 14 sub-basins (e.g., North Fork Nooksack, Drayton Harbor, Sumas River, Friday Creek), which are nested within four basins (e.g., Nooksack River, Fraser River, Samish River, Coastal).~~

~~9.8. “Watershed restoration plan” means a plan developed or sponsored by the Department of Fish and Wildlife, the Department of Ecology, the Department of Transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, recreation, or enhancement of the natural resource character and ecology of a stream, stream segment, drainage area or watershed for which agency and public review have been conducted pursuant to Chapter 43.21C RCW, the State Environmental Policy Act.~~

~~10.9. “Watershed restoration project” means a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or part of the plan and consists of one or more of the following activities:~~

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- a. A project that involves less than 10 miles of stream reach, in which less than 25 cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;
- b. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control erosive forces of flowing water; or
- c. A project primarily designated to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state; provided, that any structures, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than 200 square feet in floor area and is located above the ordinary high water mark.

~~11.10.~~ “Weir” means a structure in a stream or river for measuring or regulating stream flow.

~~12.11.~~ “Wet season” means the period generally between November 1st and March 30th of most years when soils are wet and prone to instability. The specific beginning and end of the wet season can vary from year to year depending on weather conditions.

~~13.12.~~ “Wetlands” means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created for non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

~~14.13.~~ “Wetland edge” means the boundary of a wetland as delineated based on the definitions contained in ~~WCC this chapter~~ Chapter 16.16 (Critical Areas).

~~15.14.~~ “Wood waste” means solid waste consisting of wood pieces or particles generated as a byproduct or waste from the manufacturing of wood products, handling and storage of raw materials and trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

~~23.1160.240~~ “X” definitions.

Reserved.

~~23.1160.250~~ “Y” definitions.

Reserved.

~~23.1160.260~~ “Z” definitions.

Reserved.

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Planning Commission Approved Draft,
updated to incorporate as existing text the
County Council's amendments regarding
the Cherry Point UGA pursuant to Ord.
2021-046, October 29, 2021

Exhibit E: Proposed Amendments to WCC Title 22

Shoreline Management
Program Periodic Update
2020

Whatcom County Planning and Development
Services

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Chapter 22.05 Project Permit Procedures

22.05.010 Purpose and Applicability.

- (1) The purpose of this chapter is to combine and consolidate the application, review, and approval processes for project permits and appeals as defined in WCC 20.97-221 (Definitions). It is further intended for this chapter to comply with the provisions of Chapter 36.70B RCW. These procedures provide for a consolidated land use permit process and integrate the environmental review process with the procedures for review of land use decisions.
- (2) This chapter applies to the processing of project permit applications for development and appeals related to the provisions of WCC Title 15, Buildings and Construction; WCC Title 16, Environment; WCC Title 17, Flood Damage Prevention; WCC Title 20, Zoning; WCC Title 21, Land Division Regulations; and WCC Title 23, Shoreline Management Program. The provisions of this chapter shall apply to all project permit applications as defined in RCW 36.70B.020, and other administrative decisions, as listed in the table in WCC 22.05.020 Table 1.
- (3) The meaning of words used in this chapter shall be as defined in WCC Chapters 20.97 (Definitions) or 23.60 (Definitions), as appropriate to the permit being applied for.

22.05.020 Project Permit Processing Table.

- (1) ~~Table 1. Project Permit Processing Table~~ Marked boxes in the table below indicates the required general steps for processing all project permit applications or administrative actions. Check marks indicate a step is required; reference letters refer to the notes in subsection (2) of this section. The requirements for each step listed in the top row of the table are provided in WCC [22.05.040](#) through [22.05.160](#), as indicated. Specific requirements for each project permit can be found through the references given in the table.

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1 **Table 1. Project Permit Processing Table**

Permit Application Processing Table	WCC Reference for Specific Requirements	Pre-Application Required (see 22.05.040)	Determination of Completeness Required (see 22.05.050)	Notice of Application Required (see 22.05.070)	Site Posting Required (see 22.05.080)	Notice of Open Record Hearing Required (see 22.05.090)	Open Record Hearing Held By: (see 22.05.090)	County Decision Maker (see 2.11.210 , 22.05.120)	Appeal Body (see 2.11.210 , 2.05.160 , 23.60.150)
Type I Applications (Administrative Decision with No Public Notice or Hearing)									
Boundary Line Adjustment	21.03		✓					Director	Hearing Examiner
Building Permit	15.04	✓ (fd)	✓					Director	Hearing Examiner (ig)
Natural Resource Assessment	Title 16		✓					Director	Hearing Examiner
Commercial Site Plan Review			✓					Director	Hearing Examiner
Exempt Land Division	21.03		✓					Director	Hearing Examiner
Floodplain Development Permit	Title 17							Director	Hearing Examiner
Land Disturbance Permit	15.04 and 20.80		✓					Director	Hearing Examiner
Lot of Record/Lot Consolidation	20.83 and 20.97.220		✓					Director	Hearing Examiner
Nonconforming Use	20.83		✓					Director	Hearing Examiner
Removal of Forest Practices Development Moratorium	20.80.738 (3)							Director	Hearing Examiner
Shoreline Exemption	23.60 22.05 & 07	✓ (a)	✓					Director	Hearing Examiner

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Permit Application Processing Table	WCC Reference for Specific Requirements	Pre-Application Required (see 22.05.040)	Determination of Completeness Required (see 22.05.050)	Notice of Application Required (see 22.05.070)	Site Posting Required (see 22.05.080)	Notice of Open Record Hearing Required (see 22.05.090)	Open Record Hearing Held By: (see 22.05.090)	County Decision Maker (see 2.11.210 , 22.05.120)	Appeal Body (see 2.11.210 , 2.05.160 , 23.60.150)
Zoning Interpretation	22.20							Director	Hearing Examiner
Type II Applications (Administrative Decision with Public Notice; No Public Hearing)									
Administrative Use	20.84.235	✓	✓	✓	✓			Director	Hearing Examiner
Lot Consolidation Relief	20.83.070		✓	✓	✓			Director	Hearing Examiner
Reasonable Use (b)	16.16	✓	✓	✓	✓			Director	Hearing Examiner
Shoreline Substantial (ea)	23.60 22.05 & 07	✓ (a)	✓	✓	✓			Director (db)	Shorelines Hearings Board (hf)
Shoreline Conditional Use for single-family development, uses, and activities (ea)	23.60 22.05 & 07	✓ (a)	✓	✓	✓			Director (db)	Hearing Examiner
Zoning or Critical Areas Minor Variance, Minor	22.05.024	✓	✓	✓	✓			Director	Hearing Examiner
Short Subdivision	21.04	✓	✓	✓	✓			Director	Hearing Examiner
Type III Applications (Hearing Examiner Decision with Public Notice and Public Hearing)									
Conditional Use	20.84.200	✓	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner	Superior Court

Comment [CES1]: Commensurate with proposal to have reasonable use permits decided on by the H/E.

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Permit Application Processing Table	WCC Reference for Specific Requirements	Pre-Application Required (see 22.05.040)	Determination of Completeness Required (see 22.05.050)	Notice of Application Required (see 22.05.070)	Site Posting Required (see 22.05.080)	Notice of Open Record Hearing Required (see 22.05.090)	Open Record Hearing Held By: (see 22.05.090)	County Decision Maker (see 2.11.210 , 22.05.120)	Appeal Body (see 2.11.210 , 2.05.160 , 23.60.150(H))
Floodplain Development Variance	Title 17		✓	✓	✓	✓	Hearing Examiner	Hearing Examiner	Superior Court
Long Subdivision	21.05	✓	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner (ee)	Superior Court
Binding Site Plan	21.07	✓	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner (ee)	Superior Court
Reasonable Use (ec)	16.16	✓	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner	Superior Court
Removal of Development Moratorium	20.80.738 (2)		✓	✓	✓	✓	Hearing Examiner	Hearing Examiner	Superior Court
Shoreline Conditional Use	22.05 & 0723.60	✓ (a)	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner (db)	Shorelines Hearings Board (bf)
Shoreline Substantial	22.05 & 0723.60	✓ (a)	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner (db)	Shorelines Hearings Board (bf)
Shoreline Variance	22.05 & 0723.60	✓ (a)	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner (db)	Shorelines Hearings Board (bf)
Zoning or Critical Areas Major Variance, Major	22.05.024 or 16.16.273	✓	✓	✓	✓	✓	Hearing Examiner	Hearing Examiner	Superior Court
Type IV Applications (County Council Decision with Public Notice and Public Hearing)									
Development Agreement	2.11.205	✓	✓	✓	✓	✓	Hearing Examiner	County Council	Superior Court

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Permit Application Processing Table	WCC Reference for Specific Requirements	Pre-Application Required (see 22.05.040)	Determination of Completeness Required (see 22.05.050)	Notice of Application Required (see 22.05.070)	Site Posting Required (see 22.05.080)	Notice of Open Record Hearing Required (see 22.05.090)	Open Record Hearing Held By: (see 22.05.090)	County Decision Maker (see 2.11.210 , 22.05.120)	Appeal Body (see 2.11.210 , 2.05.160 , 23.60.150(H))
Major Project Permit	20.88	✓	✓	✓	✓	✓	Hearing Examiner	County Council	Superior Court
Planned Unit Development	20.85	✓	✓	✓	✓	✓	Hearing Examiner	County Council	Superior Court

Check marks indicate a step is required; reference letters refer to the notes in subsection (2) of this section.

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- (2) **Project Permit Processing Table Notes.** As indicated in Table 1 the table in subsection (1) of this section, project permits are subject to the following additional requirements:
- ~~(a)~~ Pre application conference subject to WCC Title 23, Shoreline Management Program.
 - ~~(b)~~ Single family residential uses in critical areas or critical area buffers, except all uses in geological hazardous areas and setbacks.
 - ~~(c)~~ (a) Shoreline permit public hearing decision determined pursuant to 22.07.030(A) (Shoreline Substantial Development Permits) ~~WCC Title 23, Shoreline Management Program~~. If a public hearing is required the shoreline permit shall be processed as a Type III application.
 - ~~(d)~~ (b) Pursuant to ~~Chapters 23.60 and 23.70~~ WCC 22.07.060, final administrative determinations or decisions as appropriate shall be filed with, or approved by, the Washington State Department of Ecology.
 - ~~(e)~~ (c) All reasonable use exception applications in geological hazardous areas and setbacks and all non-single-family residential uses in critical areas or critical area buffers.
 - ~~(f)~~ (d) Building permit pre-application conference, subject to WCC 15.04.020(A)(3)(a).
 - ~~(g)~~ (e) The Hearing Examiner may choose to consult with the development standards technical advisory committee concerning technical matters relating to land division applications.
 - ~~(h)~~ (f) Whatcom County shall consider an appeal of a decision on a shoreline substantial development permit, shoreline variance, or shoreline conditional use only when the applicant waives his/her right to a single appeal to the Shorelines Hearings Board. When an applicant has waived his/her right to a single appeal, such appeals shall be processed in accordance with the appeal procedures of section WCC 23.60.1560 ~~(H)~~ (Appeals).
 - ~~(i)~~ (g) Except that appeals of WCC Title 15 fire and building code requirements shall be made to the board of appeals per current building code, as adopted in WCC 15.04.010.

22.05.024 Variances.

- (1) Variances from the terms of Title 20 (Zoning) or Chapter 16.16 (Critical Areas Ordinance) may be authorized in specific cases that will not be contrary to the public interest, and where, due to special conditions, literal enforcement of the provisions of those codes would result in unnecessary hardship. Generally, variances shall only be considered for dimensional standards, unless otherwise specified in those codes. Under no circumstances shall a variance be granted that allows a use not permissible or otherwise prohibited in the zoning district in which the subject property is located.
- (2) There are two types of variances: Minor and Major Variances.
 - (a) Minor variances include those that are unlikely to have impacts on surrounding properties or people. These shall be limited to variances for:
 - i. A reduction of up to 10% of a front yard setback
 - ii. A reduction in parking stall dimensions down to 9 feet by 18 feet.
 - ~~iii.~~ A 25% to 50% reduction of critical area buffers pursuant to 16.16.273 (Variances).
 - (b) Major variances include all other variances.

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- (3) The appropriate decision maker, as specified in 22.05.020 (Project permit processing table) shall have the authority to grant variances when the conditions set forth in subsection (4) have been found to exist. In such cases, a variance may be granted so that the spirit of the County's land use codes shall be observed, public safety and welfare secured, and substantial justice done.
- (4) Before any variance may be granted, it shall be shown that the following circumstances are found to apply:
- (a) That any variance granted shall not constitute a grant of special privilege, be based upon reasons of hardship caused by previous actions of the property owner, nor be granted for pecuniary reasons alone;
 - (b) Because of special circumstances applicable to the subject property, including size, shape, topography, location, or surrounding, the strict application of Title 20 (Zoning) or Chapter 16.16 (Critical Areas Ordinance) is found to cause a hardship and deprive the subject property of a use or improvement otherwise allowed in its zoning district. Aesthetic considerations or design preferences without reference to restrictions based upon the physical characteristics of the property do not constitute sufficient hardship under this section;
 - (c) The granting of the variance will not be materially detrimental to the public welfare, or injurious to the property or improvements in the vicinity and zone in which the subject property is situated.

22.05.026 Conditional Use Permits.

- (1) **Application.** Conditional use permit applications shall be processed per the provisions of this chapter.
- (2) Conditional use permits shall be nontransferable unless said transfer is approved by the Hearing Examiner.
- (3) **Approval Criteria.** Before approving an application, the Director or Hearing Examiner shall ensure that any specific standards of the zoning district defining the use are fulfilled, and shall find adequate evidence showing that the proposed use at the proposed location:
 - (a) Will be harmonious and in accordance with the general and specific objectives of Whatcom County's Comprehensive Plan, zoning regulations, and any other applicable regulations.
 - (b) Will be designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.
 - (c) If located in a rural area (as designated in the Comprehensive Plan), will be consistent with rural land use policies as designated in the rural lands element of the Comprehensive Plan.
 - (d) Will not be hazardous or disturbing to existing or future neighboring uses.
 - (e) Will be serviced adequately by necessary public facilities such as highways, streets, police and fire protection, drainage structures, refuse disposal, water, sewers, and schools; or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such services.

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- (f) Will not create excessive additional requirements at public cost for public facilities and services, and will not be detrimental to the economic welfare of the community.
 - (g) Will not involve uses, activities, processes, materials, equipment, and conditions of operation that will be detrimental to any persons, property, or the general welfare by reasons of excessive production of traffic, noise, smoke, fumes, glare or odors.
 - (h) Will have vehicular approaches to the property which shall be so designed as not to create an interference with traffic on surrounding public streets.
 - (i) Will not result in the destruction, loss or damage of any natural, scenic, or historic feature of major importance.
- (4) **Approval Criteria for expansion of Fossil Fuel Refineries** pursuant to WCC 20.68.153 and expansion of Fossil Fuel Transshipment Facilities pursuant to WCC 20.68.154. Before approving an application, the hearing examiner shall ensure that any specific standards of the zoning district defining the use are fulfilled, and shall find adequate evidence showing that:
- (a) The conditional use permit approval criteria listed under WCC 22.05.026(3) are met;
 - (b) Within shorelines, if applicable, County approval shall be contingent upon approval of a shoreline permit;
 - (c) The applicant has documented to the County decision maker (as applicable):
 - (i) All of the anticipated types and volumes of substances to be processed, stored, or transferred in bulk with the proposed expansion,
 - (ii) Changes in the Maximum Transshipment Capacity or the Maximum Atmospheric Crude Distillation Capacity occurring as a result of the proposed expansion, as applicable; and
 - (iii) The mode of shipment vessels to be loaded or unloaded with the proposed equipment and/or as a result of the proposed expansion.
 - (iv) The permit shall be limited exclusively to those types and volumes of materials or products as documented and approved.
 - (d) Insurance requirements meet the provisions of WCC 22.05.125.
 - (e) Mitigation of transportation impacts consistent with Chapter 20.78 WCC, Transportation Concurrency Management, and Chapter 16.24 WCC, Commute Trip Reduction.
 - (f) Mitigation of impacts to other services including fire and emergency response capabilities, water supply and fire flow, to address risks created by expansions.
 - (g) Plans for stormwater and wastewater releases have been approved.
 - (h) Prior to commencement of any site preparation or construction activities, all necessary state leases shall be acquired for any piers or aquatic lands improvements, and it shall be demonstrated to the zoning administrator that the project applicant has met any federal or state permit consultation requirements, including tribal treaty rights or the provisions of the Magnuson Amendment through state and federal permitting decisions.
 - (i) The County decision maker may approve a conditional use permit with a condition to obtain relevant leases and complete any necessary federal and state permitting requirements, and may restrict the conditional use permittee from undertaking site preparation or construction activities until it has fulfilled that condition.

Comment [CES2]: This section has been added since the P/C acted on it to incorporate as existing text Council's Cherry Point amendments (Ord. 2021-046, 7/27/2021)

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(j) The permittee must inform the county permitting authorities of a change in the aforementioned disclosures so that the department can document current capacity levels to ensure that the cumulative thresholds under WCC 20.68.153 or WCC 20.68.154 (as applicable) have not been exceeded.

(k) The County decision maker shall include, in any approval of an application for an expansion, as per 20.68.153 or 20.68.154, a condition that the permitted equipment shall only be used in the manner described by the project proponent in the application and approved in the permit. The application shall describe the intended use, including the type of fuel to be stored and, if located at a Fossil Fuel Refinery or Renewable Fuel Refinery, whether the equipment will or will not be used for transshipment.

(5) **Revisions.** The Hearing Examiner may administratively approve revisions to conditional use permits; provided, that the proposed changes are within the scope and intent of the original permit. "Within the scope and intent of the original permit" shall mean the following:

(a) Lot coverage and height may be increased a maximum of 10 percent from the provisions of the original permit; provided, that:

(i) revisions involving new structures not shown on the original site plan shall require a new permit;

(ii) any revisions shall not exceed height, lot coverage, setback, or any other requirements of the regulations for the area in which the project is located; and,

(iii) any revisions shall be reviewed for consistency with the Comprehensive Plan;

(b) Landscaping may be added to a project without necessitating an application for a new permit; provided, that the landscaping is consistent with conditions (if any) attached to the original permit and is consistent with the regulations for the area in which the project is located;

(c) The use authorized pursuant to the original permit is not changed;

(d) No additional over-water construction will be involved for shoreline conditional use permits;

(e) No substantial increase in adverse environmental impact will be caused by the project revision.

22.05.028 Administrative Approval Uses.

(1) Administrative approval applications shall be processed per the provisions of this Chapter.

(2) The Director of Planning and Development Services is authorized to approve, approve with conditions, or deny all administrative approval use applications.

(3) **Approval Criteria.** Decisions for all administrative approval use permits shall be based upon compliance with:

(a) The criteria established for the proposed use in the appropriate zone district;

(b) The Comprehensive Plan policies governing the associated land use designation;

(c) In rural areas, consideration will be given to the cumulative impacts of permitted uses in relation to the governing Comprehensive Plan policies and zoning district; and

(d) The criteria of WCC 22.05.026 (Conditional Use Permits), subsection (3) (Approval Criteria).

(e) Additionally, decisions for administrative approval use permits for adult businesses shall be based on the criteria in subsection (4) of this section.

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- 1 (4) **Additional Approval Criteria for Adult Businesses.** Prior to granting administrative approval for an
2 adult business, the Director shall find that the proposed use at the proposed location satisfies or will
3 satisfy all the following criteria:
- 4 (a) The adult business will be consistent with WCC 20.66.131 (Light Impact Industrial District,
5 Administrative Approval Uses).
- 6 (b) The adult business shall be closed from 2:00 a.m. to 10:00 a.m. if it contains:
7 (i) An adult eating or drinking establishment; or
8 (ii) An adult theater; or
9 (iii) Another adult commercial establishment; or
10 (iv) One or more viewing booths.
- 11 (c) If the adult business includes one or more viewing booths, the interior of the adult business will
12 incorporate all of the following measures:
- 13 (a) Each viewing booth shall have at least a three-foot wide opening where a customer enters
14 and exits the booth that is without doors, physical barriers, or visual barriers; and
15 (b) Each viewing booth shall have at least one 100-watt light bulb that is properly working and
16 turned on when business is open. The light bulb shall not be covered or otherwise shielded
17 except with a commercially available lighting fixture. A minimum of one 12-inch by 12-inch
18 durable metal sign shall be located at the entrance to each viewing booth area stating that
19 lights shall remain on; and
20 (c) Aisles or hallways adjacent to viewing booths shall be a minimum of five feet wide; and
21 (d) There shall be no holes or openings in common walls between viewing booths.
- 22 (d) Additionally for adult businesses containing one or more viewing booths, a condition of approval
23 shall allow an unannounced inspection by Whatcom County every six months during business
24 hours to ensure that measures in subsections (4)(c)(i) through (iv) of this section are being
25 implemented on an ongoing basis.
- 26 (5) **Revisions.** The Director may approve revisions to administrative approval use permits; provided,
27 that the proposed changes are within the scope and intent of the original permit. "Within the scope
28 and intent of the original permit" shall mean the following:
- 29 (a) Lot coverage and height may be increased a maximum of 10 percent from the provisions of the
30 original permit; provided, that:
- 31 (i) revisions involving new structures not shown on the original site plan shall require a
32 new permit; and
33 (ii) any revisions shall not exceed height, lot coverage, setback, or any other requirements
34 of the regulations for the area in which the project is located; and
35 (iii) any revisions shall be reviewed for consistency with the Comprehensive Plan;
- 36 (b) Landscaping may be added to a project without necessitating an application for a new permit;
37 provided, that the landscaping is consistent with conditions (if any) attached to the original
38 permit and is consistent with the regulations for the area in which the project is located;
- 39 (c) The use authorized pursuant to the original permit is not changed;
- 40 (d) No additional over-water construction will be involved for shoreline conditional use permits;

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(e) No substantial increase in adverse environmental impact will be caused by the project revision.

22.05.030 Consolidated Permit Review.

The County shall integrate and consolidate the review and decision on two or more project permits subject to this chapter that relate to the proposed project action unless the applicant requests otherwise. Consolidated Type I, II, III and IV permits shall be reviewed under the process required for the permit with the highest process type number per WCC [22.05.020](#). Level IV is considered the highest and Level I is considered the lowest process type.

22.05.040 Pre-Application Conference.

The purpose of a pre-application conference is to assist applicants in preparing development applications for submittal to the County by identifying applicable regulations and procedures. It is not intended to provide a staff recommendation on future permit decisions. Pre-application review does not constitute acceptance of an application by the County nor does it vest an application, unless otherwise indicated in Whatcom County Code.

- (1) A pre-application conference is required as indicated in WCC [22.05.020](#), unless the Director or designee grants a written waiver. For other permits, the applicant may request a pre-application conference.
- (2) The County shall charge the applicant a fee for a pre-application conference per the unified fee schedule. If the County makes a determination of completeness on a project permit submitted within one year of the notice of site-specific submittal requirements per subsection (6) of this section, the pre-application fee shall be applied to the application cost.
- (3) It is the responsibility of the applicant to initiate a pre-application conference through a written application. The application shall, at a minimum, include all items identified on the pre-application form and the department's administrative manual. The applicant may provide additional information to facilitate more detailed review.
- (4) A pre-application conference shall be scheduled as soon as possible and held no later than 30 calendar days from the date of the applicant's request, unless agreed upon by the applicant and the County.
- (5) The County shall invite the appropriate city to the pre-application meeting if the project is located within that city's urban growth area or which contemplates the use of any city utilities. Notice shall also be given to appropriate public agencies and public utilities, if within 500 feet of the area submitted in the application.
- (6) The County should provide the applicant with notice of site-specific submittal requirements for application no later than 14 calendar days from the date of the conference.
- (7) A new pre-application conference shall be required if an associated project permit application is not filed with the County within one year of the notice of site-specific submittal requirements per subsection (6) of this section or the application is substantially altered, unless waived per WCC [22.05.040](#)(1).

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22.05.050 Application and Determination of Completeness.

(1) Project permit applications shall be submitted using current forms provided by the review authority.

The submittal shall include: all applicable fees per Chapter [22.25](#) WCC, all materials required by the department's administrative manual (unless waived pursuant to subsection (2)), and all items identified in the pre-application notice of site-specific submittal requirements. If a permit is denied, no reapplication for the same or essentially similar development may be made until one year from the date of denial.

(2) The Director may vary or waive the requirements provided in the department's administrative manual on a case-by-case basis, though may also require additional specific information depending on the nature of the proposal and the presence of sensitive ecological features or issues related to compliance with other county requirements.

~~(2)(3)~~ Upon submittal by the applicant, the County will accept the application and note the date of receipt. Receipt of an application does not constitute approval of the project proposal.

~~(3)(4)~~ Within 14 calendar days of receiving the application, the County shall provide to the applicant a written determination which states either that the application is complete or the application is incomplete. To the extent known by the County, other agencies of local, state, or federal government that may have jurisdiction shall be identified on the determination.

~~(4)(5)~~ A project permit application is complete when it meets the submittal requirements of the department's administrative manual, includes items identified through the pre-application conference process and contains sufficient information to process the application even if additional information will be required. A determination of completeness shall not preclude the County from requiring additional information or studies at any time prior to permit approval. A project permit application shall be deemed complete under this section if the County does not issue a written determination to the applicant that the application is incomplete by the end of the fourteenth calendar day from the date of receipt.

~~(5)(6)~~ If the application is determined to be incomplete, the following shall take place:

(a) The County will notify the applicant that the application is incomplete and indicate what is necessary to make the application complete.

(b) The applicant shall have 90 calendar days from the date that the notification was issued to submit the necessary information to the County. If the applicant does not submit the necessary information to the County in writing within the 90-day period, the application shall be rejected. The Director or designee may extend this period for an additional 90 calendar days upon written request by the applicant.

(c) Upon receipt of the necessary information, the County shall have 14 calendar days to make a determination and notify the applicant whether the application is complete or what additional information is necessary.

(7) A determination of an incomplete application is an appealable final administrative determination, subject to WCC [22.05.160](#)(1).

Comment [CES3]: Moved from 23.60.090
(Permit Application Review)

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22.05.060 Vesting.

- (1) **Complete Applications.** For a project permit application the department has determined to be complete per WCC [22.05.050](#)(4), the application shall be considered under the zoning or other land use control ordinances in effect on the date the application was submitted to the department.
- (2) **Incomplete Applications.** For a project permit application the department has determined to be incomplete per WCC [22.05.050](#)(5), the application shall be considered under the zoning or other land use control ordinances in effect on the date the department determines the application to be complete based on the necessary information required by the department.
- (3) **Applications Subject to Pre-Application Conference.** Notwithstanding the provisions of subsections (1) and (2) of this section, for a project permit application that is (a) subject to a pre-application conference per WCC [22.05.020](#) and [22.05.040](#), (b) submitted no more than 28 calendar days from the date the department issued its notice of site-specific submittal requirements, and (c) determined complete by the department, the application shall be considered under the zoning or other land use control ordinances in effect on the date the pre-application conference request was submitted to the department.
- (4) **Continuation of Vesting.** Building or land disturbance permit applications that are required to complete a valid (i.e., not expired) project permit approval for project permits identified in the following list (subsections (4)(a) through (m) of this section) shall vest to the zoning and land use control ordinances in effect at the time the project permit application identified below was determined complete:
 - (a) Administrative use;
 - (b) Commercial site plan review;
 - (c) Conditional use;
 - (d) Critical areas variance;
 - (e) Major project permit;
 - (f) Natural resource review;
 - (g) Planned unit development;
 - (h) Reasonable use ~~exceptions~~(Type II and III);
 - (i) Shoreline conditional use permit;
 - (j) Shoreline exemption;
 - (k) Shoreline substantial;
 - (l) Shoreline variance;
 - (m) Zoning variance.
- (5) **Building Permit Applications within Recorded Long and Short Subdivisions and Binding Site Plans.** Building permit applications, including associated land disturbance permits, shall be governed by conditions of approval, statutes, and ordinances in effect at the time of final approval pursuant to RCW [58.17.170](#). Vesting duration for those building permit applications shall be governed by the time limits established for long subdivisions in RCW [58.17.170](#), unless the County finds that a change in conditions creates a serious threat to the public health or safety.

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- (6) **Building and Fire Code Requirements.** Building and fire code provisions adopted per WCC Title [15](#) vest at the time a building permit application is determined complete.
- (7) **Duration.** Vesting status established through subsections (1) through (5) of this section runs with the application and expires upon denial of the application by the County, withdrawal of the application by the applicant, rejection of the application per WCC [22.05.050](#)(5), expiration of the application per WCC [22.05.130](#)(1)(a)(i), or expiration of the approved permit per WCC [22.05.140](#).
- 22.05.070 Notice of Application.**
- (1) For Type II, III, and IV applications per WCC [22.05.020](#), the County shall issue a notice of application within 14 calendar days of a determination of completeness. The date of notice shall be the date of mailing.
- (2) If the County has made a State Environmental Policy Act (SEPA) threshold determination of significance concurrently with the notice of application, the County shall combine the determination of significance and scoping notice with the notice of application.
- (3) Notice shall include:
- (a) The date of application, the date of determination of completeness for the application, and the date of the notice of application;
 - (b) A description of the proposed project action and a list of the project permits included in the application, and, if applicable, a list of any studies requested by the County;
 - (c) The identification of other permits not included in the application to the extent known by the County;
 - (d) The identification of environmental reviews conducted, including notice of existing environmental documents that evaluate the proposed project (including but not limited to reports, delineations, assessments and/or mitigation plans associated with critical area reviews) and, if not otherwise stated on the document providing notice of application, the location where the application and any studies can be reviewed;
 - (e) Any other information determined appropriate by the County;
 - (f) A statement indicating those development regulations that will be used for project mitigation or a determination of consistency if they have been identified at the time of notice;
 - (g) A statement of the minimum public comment period which shall be 14 calendar days for all project permits except for shoreline substantial development, shoreline conditional use, shoreline variance and major project permits for mitigation banks which shall have a minimum comment period of no more than 30 calendar days;
 - (h) A statement of the right of any person to comment on the application and receive notice of and participate in any hearings, request a copy of the decision once made and to appeal a decision when allowed by law. The department may accept public comments at any time prior to the close of the open record public hearing, or if there is no public hearing, prior to the decision on the project permit. In addition, the statement shall indicate that any person wishing to receive personal notice of any decisions or hearings must notify the department.
- (4) The department shall issue a notice of application in the following manner:

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- (a) The notice shall be published once in the official County newspaper and on the Whatcom County website. The applicant shall bear the responsibility of paying for such notice.
- (b) Additional notice shall be given using the following method:
 - i. For sites within urban growth areas: Application notice shall be sent to all property owners within 300 feet of the external boundaries of the subject property as shown by the records of the County assessor;
 - ii. For sites outside urban growth areas: Application notice shall be sent to all property owners within 1,000 feet of the external boundaries of the subject property as shown by the records of the County assessor.
- (5) The County shall send notices of application to neighboring cities and other agencies or tribes that will potentially be affected, either directly or indirectly, by the proposed development. Notice shall also be given to public utilities, if within 500 feet of the area submitted in the application.
- (6) All public comments received on the notice of application must be received by the department of planning and development services by 4:30 p.m. on or before the last day of the comment period.
- (7) Except for a determination of significance, the County shall not issue its SEPA threshold determination or issue a decision or recommendation on a permit application until the end of the public comment period on the notice of application. If an optional Determination of Nonsignificance (DNS) process is used, the notice of application and DNS comment period shall be combined.
- (8) Public notice given for project permit applications, SEPA documents, project hearings, and appeals hearings as required by this chapter and other provisions of the County code may be combined when practical, where such combined notice will expedite the permit review process, and where provisions applicable to each individual notice are met through the combined notice.

22.05.080 Posting of Application.

Where posting of public notice is required per WCC [22.05.020](#), the department shall post public notices of the proposal on all road frontages of the subject property and adjacent shorelines on or before the notice of application date and shall be visible to adjacent property owners and to passing motorists. Said notices shall remain in place until three days after the comment period closes.

22.05.090 Open Record Public Hearings.

- (1) ~~As shown in~~ Pursuant to WCC [22.05.020](#) (Project Permit Processing Table), Type III and Type IV applications and appeals of Type I and Type II applications require an open record public hearing.
- (2) ~~These Open Record Hearing Notice. Public hearings are subject to the~~ shall be noticed as follows:
 - ~~(a)~~ a. The Hearing Examiner shall publish a notice of open record hearing once in the official County newspaper and on the Whatcom County website at least 14 calendar days prior to the hearing. The notice shall consist of the date, time, place, and type of the hearing. In addition, personal notice shall be provided to any person who has requested such notice in a timely manner, consistent with WCC [22.05.070](#) ~~(3)(h)~~ (Notice of Application).
 - ~~(b)~~ b. Within two days of the published notice the applicant shall be responsible for posting three copies of the notice in a conspicuous manner on the property upon which the use is proposed. Notices shall be provided by the Hearing Examiner.

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- 1 | ~~(c)~~c. _____ An affidavit verifying distribution of the notice must be submitted to the Hearing
2 | Examiner two working days prior to the open record hearing.
- 3 | ~~(d)~~d. _____ The Hearing Examiner shall send notice of an open record hearing to neighboring cities
4 | and other agencies or tribes that will potentially be affected, either directly or indirectly by the
5 | proposed development. The Hearing Examiner shall be responsible for such notification.
- 6 | ~~(e)~~e. _____ The applicant shall pay all costs associated with providing notice.
- 7 | ~~(2)~~(3) **One Open Record Hearing.** A project proposal subject to this chapter shall be provided with no
8 | more than one open record hearing and one closed record hearing pursuant to RCW Chapter 36.70B
9 | ~~RCW~~. This restriction does not apply to an appeal of a determination of significance as provided in
10 | RCW 43.21C.075.
- 11 | ~~(3)~~(4) **Combined County and Agency Hearing.** Unless otherwise requested by an applicant, the County
12 | shall allow an open record hearing to be combined with a hearing that may be necessary by another
13 | local, state, regional, federal or other agency for the same project if the joint hearing can be held
14 | within the time periods specified in Chapter 22.05 WCC, or if the applicant agrees to waive such
15 | time periods in the event additional time is needed in order to combine the hearings. The combined
16 | hearing shall be conducted in Whatcom County pursuant to Chapter 36.70B RCW.
- 17 | ~~(4)~~(5) Quasi-judicial actions, including applications listed as Type III and IV applications in
18 | WCC 22.05.020, are subject to the appearance of fairness doctrine, Chapter 42.36 RCW. The Hearing
19 | Examiner shall administer the open record hearing and issue decisions or recommendations in
20 | accordance with Chapter 42.36 RCW.
- 21 | **22.05.100 Application Consistency Review and Recommendations.**
- 22 | (1) During project permit review, the review authority shall determine if the project proposal is
23 | consistent with the County's comprehensive plan, other adopted plans, and existing regulations and
24 | development standards.
- 25 | ~~(1)~~(i) _____ For Type I and II applications, the conclusions of a consistency determination made
26 | under this section shall be documented in the project permit decision.
- 27 | ~~(2)~~(ii) _____ For Type III and IV applications the department shall prepare a staff report on the
28 | proposed development or action. Staff shall file one consolidated report with the Hearing
29 | Examiner at least 10 calendar days prior to the scheduled open record hearing. The staff report
30 | shall:
- 31 | ~~(i)~~ii. _____ Summarize the comments and recommendations of County departments, affected agencies,
32 | special districts and public comments received within the 14-day or 30-day comment period
33 | as established in WCC 22.05.070(6).
- 34 | ~~(ii)~~iii. _____ Provide an evaluation of the project proposal for consistency as indicated in this section.
- 35 | ~~(iii)~~iii. _____ Include recommended findings, conclusions, and actions regarding the proposal.
- 36 | (2) **Additional Requirements.** For all project permit applications, if more information is required to
37 | determine consistency at any time in review of the application, the department may issue a notice
38 | of additional requirements. The applicant notice of additional requirements shall have allow the

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applicant 180 calendar days from the date of issuance of said notice to submit all required information.

(3) **Permit Inactivity.** Any application that remains inactive for a period of 180 days shall expire and a new application and repayment of fees shall be required to reactivate the proposal; provided, that the Director or designee may grant a 1-year extension for good cause extend this period for no more than cumulative 24 months upon written request by the applicant, provided the request is submitted before the end of the first 180-day period. A notice of additional requirements is not a final administrative determination.

(4) **Burden of Proof.** Permit applicants/proponents have the burden of proving that the proposed development is consistent with all applicable policies and regulations

(5) **Permit conditions.** In granting, revising, or extending a permit, the decision maker may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other elements of the proposed development deemed necessary to assure that the development will be consistent with the applicable policies and regulations (including the policies and provisions of the Shoreline Management Act for shoreline permits). In cases involving unusual circumstances or uncertain effects, a condition may be imposed to require monitoring with future review or reevaluation to assure conformance. If the monitoring plan is not implemented, the permittee may be found to be noncompliant and the permit may be revoked in accordance with WCC 22.05.150 (Permit Revocation).

22.05.110 Final Decisions – Type I, II, and III applications.

- (1) The Director or designee's final decision on all Type I or II applications shall be in the form of a written determination or permit. The determination or permit may be granted subject to conditions, modifications, or restrictions that are necessary to comply with all applicable codes.
- (2) The Hearing Examiner's final decision on all Type III applications per WCC 22.05.020 or appeals per WCC 22.05.160(1) shall either grant or deny the application or appeal.
 - (a) The Hearing Examiner may grant Type III applications subject to conditions, modifications or restrictions that the Hearing Examiner finds are necessary to make the application compatible with its environment, carry out the objectives and goals of the comprehensive plan, statutes, ordinances and regulations as well as other official policies and objectives of Whatcom County.
 - (b) Requirements:
 - (i) Performance bonds or other security, acceptable to the prosecuting attorney, may be required to ensure compliance with the conditions, modifications and restrictions.
 - (ii) Fossil or Renewable Fuel Refinery or Fossil or Renewable Fuel Transshipment Facilities: The applicant shall provide insurance or other financial assurance acceptable to the prosecuting attorney consistent with Section 22.05.125.
 - (c) The Hearing Examiner shall render a final decision within 14 calendar days following the conclusion of all testimony and hearings. Each final decision of the Hearing Examiner shall be in writing and shall include findings and conclusions based on the record to support the decision.

Comment [CES4]: Combined 23.60.090 (Permit application review) with this section and normalized the extension date to 1-year.

Comment [CES5]: Moved from 23.60.120

Comment [CES6]: Moved from 23.60.140 (Permit Conditions).

Comment [CES7]: This section has been revised since the P/C acted on it to incorporate as existing text Council's Cherry Point amendments (Ord. 2021-046, 7/27/2021).

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- (d) No final decision of the Hearing Examiner shall be subject to administrative or quasi-judicial review, except as provided herein.
- (e) The applicant, any person with standing, or any County department may appeal any final decision of the Hearing Examiner to superior court, except as otherwise specified in WCC 22.05.020.

22.05.120 Recommendations and Final Decisions to County Council – Type IV Applications.

- (1) For Type IV applications per WCC [22.05.020](#) the Hearing Examiner's recommendations to the County Council may be to grant, grant with conditions or deny an application. The Hearing Examiner's recommendation may include conditions, modifications or restrictions as may be necessary to make the application compatible with its environment, carry out the objectives and goals of the comprehensive plan, statutes, ordinances and regulations as well as other official policies and objectives of Whatcom County.
- (2) Each recommended decision of the Hearing Examiner for an application identified as a Type IV application per WCC [22.05.020](#) shall be in writing to the clerk of the County Council and shall include findings and conclusions based upon the record to support the decision. Such findings and conclusions shall also set forth the manner in which the decision carries out and conforms to the County's comprehensive plan and complies with the applicable statutes, ordinances or regulations.
- (3) The deliberation of the County Council on quasi-judicial actions shall be in accordance with WCC [22.05.090](#)(4) and Chapter [42.36](#) RCW.
- (4) For planned unit developments and major project permits the following shall apply:
- (a) The recommendation of the Hearing Examiner regarding planned unit developments and major project permits shall be based upon the criteria set forth in WCC [20.85.335](#) and [20.88.130](#), respectively.
- (b) The Hearing Examiner shall file the recommendation with the clerk of the County Council within 21 calendar days following the conclusion of the open record hearing.
- (c) The County Council shall conduct the following within the specified time frames, except as provided in subsection (4)(c)(iii) of this section:
- Hold a public meeting, not an open record public hearing, to deliberate on the project application within 28 calendar days after receiving the Hearing Examiner's recommendation.
 - Issue a final written decision within 21 calendar days of the public meeting.
 - The County Council may exceed the time limits in subsection (4)(c)(i) or (ii) of this section if the County Council meeting schedule does not accommodate a meeting within the above time frames, or if the County Council makes written findings that a specified amount of additional time is needed to process a specific application or project type, per RCW [36.70B.080](#)(1).
- (5) The County Council's final written decision may include conditions when the project is approved and shall state the findings of fact upon which the decision is based.
- (a) Performance bonds or other security, acceptable to the prosecuting attorney, may be required to ensure compliance with the conditions, modifications and restrictions.

Comment [CES8]: This section has been revised since the P/C acted on it to incorporate as existing text Council's Cherry Point amendments (Ord. 2021-046, 7/27/2021)

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(b) Fossil or Renewable Fuel Refinery or Fossil or Renewable Fuel Transshipment Facilities: The applicant shall provide insurance or other financial assurance acceptable to the prosecuting attorney consistent with Section 22.05.125.

(6) Any deliberation or decision of the County Council shall be based solely upon consideration of the record established by the Hearing Examiner, the recommendations of the Hearing Examiner and the criteria set forth in applicable County code, the County Comprehensive Plan if applicable, and the County Shoreline Management Program, including compliance with SEPA, WAC 197-11 (SEPA Rules) as adopted and modified in the County Code, and the County's adopted SEPA policies.

22.05.125 Proof of Insurance for Hazards Created in the County

For expansion projects requiring approval under a Conditional Use Permit or Major Project Permit at new or existing facilities per WCC 20.68.153 or WCC 20.68.154, financial assurance for the benefit of Whatcom County shall be required. For such expansion projects, a permittee must demonstrate proof of financial assurance (such as trust funds, letters of credit, insurance, self-insurance, financial tests, corporate guarantees, payment bonds, or performance bonds) sufficient to comply with the financial responsibility requirements set forth in State and Federal law, as applicable, prior to permit approval by a Whatcom County Decision Maker. If the financial assurance is in the form of insurance policies, the policies must name Whatcom County as an additional insured and provide Whatcom County with a certificate of insurance to that effect.

The permittee must maintain the approved level of financial assurance coverage for new or expanded uses while operating the permitted facility. At the request of the permittee, the Whatcom County Decision Maker may approve new or altered forms of financial assurance to meet the requirements of this section, provided that the new or altered form is consistent with the scope and intent of the original permit condition.

22.05.126 Supplemental Procedures for Fossil Fuel Refinery and Fossil Fuel Transshipment Facility Permitting

(1) Upon request of the County, Fossil Fuel Refineries or Fossil Fuel Transshipment Facilities shall fill out a supplemental checklist for the purpose of determining whether a project qualifies as a permitted use or requires a conditional use permit as specified in WCC 20.68.153 or WCC 20.68.154. The checklist shall contain supplemental information to include:

- (a) Impact on Maximum Atmospheric Crude Distillation Capacity (MACDC), Maximum Transshipment Capacity, and fossil fuel unit train shipment frequency from the proposed activity;
- (b) Confirmation of the acceptance of potential permit conditions as outlined in 20.68.068 subsection (23);
- (c) Applicant name, property owner information, and parcel information as appropriate; and
- (d) An attestation by the applicant regarding the accuracy of the information contained therein, signed by the applicant and certified by a Notary Public.

(2) Confidential Business Information

Comment [CES9]: This section has been inserted since the P/C acted on it to incorporate as existing text Council's Cherry Point amendments (Ord. 2021-046, 7/27/2021).

Comment [CES10]: This section has been inserted since the P/C acted on it to incorporate as existing text Council's Cherry Point amendments (Ord. 2021-046, 7/27/2021).

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- (a) For the purpose of checklists, permit applications and all other materials submitted by Fossil Fuel Refineries or Fossil Fuel Transshipment Facilities for activities in the Cherry Point Heavy Impact Industrial District, the following shall apply:
 - (i) The applicant shall clearly identify information the applicant considers to be Confidential Business Information, not subject to disclosure under chapter 42.56 RCW (Public Records Act) and/or WCC 1.32.090. If such information is contained in submittal documents, the applicant shall submit two copies of materials for County use as follows:
 1. A copy with Confidential Business Information clearly identified, with a watermark indicating the document contains such information; and
 2. A copy with Confidential Business Information redacted, and a watermark added indicating that the document does not contain such information and is suitable for public disclosure.
 - (ii) Confidential Business Information may include:
 1. Processing equipment technical specifications on internals, sidestream/pumparounds, design specifications, and process controls;
 2. Process unit design, instrumentation and controls;
 3. Feedstock, product, or process unit pump capacity and configuration; and
 4. Contractual agreements and all terms contained therein.
 - (iii) The information listed above is not meant to be all-inclusive. Other information related to the applicant's processing activities, feedstock and product purchase, and/or sale and transportation methods and costs may be Confidential Business Information and, if so, shall be marked as such when submitted.
 - (iv) Calculation and permit material submittals may contain, but are not required to contain any of the above information.
 - (v) Where no increase to MACDC, Maximum Transshipment Capacity, or unit train frequency is proposed, submittal of Confidential Business Information specifically related to the criteria of WCC 20.68.153 and WCC 20.68.154 shall not be required to be submitted with the permit application materials.
- (3) Where calculations are to be submitted for Maximum Transshipment Capacity of Maximum Atmospheric Crude Distillation Capacity, the applicant shall provide calculations performed and certified by a professional engineer licensed in the state of Washington, clearly indicating the impact on MACDC and Transshipment Capacity. Confidential Business Information shall be clearly identified as required by WCC 22.05.126(2)(a)(i) above.
- (4) If the County receives a public records request for records containing information the applicant has clearly indicated to be Confidential Business Information pursuant to WCC 22.05.126(2)(a)(i), the County will notify the applicant of the request and provide the applicant with at least 30 days to file for an injunction under RCW 42.56.540 to prevent the disclosure of such information. If the applicant does not file for an injunction within the period of time set by the County, the County will disclose the records containing the information that the applicant has designated as Confidential Business Information pursuant to WCC 22.05.126(2)(a)(i).

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22.05.130 Permit Review Time Frames.

- (1) The County shall issue a notice of final decision for all permit types, including procedures for administrative appeal and notice that affected property owners may request a change in valuation for property tax purposes, to the applicant, the Whatcom County assessor, and any person who requested notice or submitted substantive comments on the application within 120 calendar days of the date the department determined the application complete, except as provided below:
- (a) The following time periods shall be excluded from the calculation of the number of days elapsed:
- i. Any period during which the applicant has been required by the County to correct plans, perform required studies, or provide additional, required information through a notice of additional requirements, per WCC [22.05.100\(3\)](#). The period shall be calculated from the date the County issues a notice of additional requirements until the date the County receives all of the requested additional information;
 - ii. Any period during which an environmental impact statement is being prepared following a determination of significance pursuant to Chapter [43.21C](#) RCW and WCC Title [16](#);
 - iii. The period specified for administrative appeals of project permits as provided in Chapter [2.11](#) WCC;
 - iv. The period specified for administrative appeals of development standards as provided in WCC [12.08.035\(I\)](#);
 - v. Any period in which the applicant has not met public notification requirements;
 - vi. Any period of time mutually agreed upon in writing by the applicant and the County.
- (b) The time limits established by this section shall not apply to a project permit application that:
- i. Requires an amendment to the Whatcom County comprehensive plan or a development regulation in order to obtain approval.
 - ii. Requires approval of a new fully contained community as provided in RCW [36.70A.350](#), a master planned resort as provided in RCW [36.70A.360](#), or the siting of an essential public facility as provided in RCW [36.70A.200](#).
 - iii. Is substantially revised by the applicant, including all redesigns of proposed land divisions, in which case a new time period shall start from the date at which the revised project application is determined to be complete.
- (c) Additionally, for shoreline permits and exemptions, and pursuant to WAC 173-27-125, the following special procedures apply to Washington State Department of Transportation (WSDOT) projects:
- i. Pursuant to RCW 47.01.485, the Legislature established a target of 90 days review time for local governments.
 - ii. Pursuant to RCW 90.58.140, WSDOT projects that address significant public safety risks may begin twenty-one days after the date of filing if all components of the project will achieve no net loss of shoreline ecological functions.
- ~~(c)~~(d) The County may extend notice of final decision on the project if the County can document legitimate reasons for such a delay. In such a case the County shall provide written

Comment [CES11]: Added per Periodic Review Checklist, Item 2015.a, and Scoping Document, Item #2e.

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notice to the applicant at least 14 calendar days prior to the deadline for the original notice of final decision. The notice shall include a statement of reasons why the time limits have not been met and a date of issuance of a notice of final decision.

(2) If an applicant believes a project permit application has not been acted upon by the County in a timely manner or otherwise consistent with this chapter, the applicant or authorized representative may request a meeting with the Director to resolve the issue. Within 14 calendar days ~~of~~ after the meeting, the Director shall:

(a) Approve the permit if it is within the Director's authority to do so, provided the approval would not violate state or County regulations; or

(b) Deny the permit if it is within the Director's authority to do so; or

(c) Respond in writing with the department's position, or a mutually acceptable resolution of the issue, which may include a partial refund of application fees at the Director's discretion.

(3) Any final order, permit decision or determination issued by Whatcom County shall include a notice to the applicant of his or her appeal rights per WCC [22.05.160](#) (Appeals).

22.05.140 Expiration of Project Permits.

(1) This section shall apply to non-shoreline project permits and shoreline statements of exemption.

Expiration of shoreline permits shall be subject to the rules of WCC 22.07.080 (Expiration of Shoreline Permits).

~~(1)(2)~~ Project permit approval status shall expire two years from the date of approval except where a different duration of approval is authorized by Whatcom County Code, or is established by a court decision or state law, or executed by a development agreement. The decision maker may extend this period up to one year from the date of original expiration upon written request by the applicant.

~~(2)(3)~~ Any complete project permit application for which no information has been submitted in response to the department's notice of additional requirements per WCC [22.05.100](#)(3) shall expire at the end of the time limit established in 22.05.100(3).

~~(3)(4)~~ For projects that have received a SEPA determination of significance per Chapter [16.08](#) WCC, all underlying project permit applications shall expire when one of the following occurs:

(a) The applicant has not in good faith maintained a contract with a person or firm to complete the environmental impact statement (EIS) as specified in the scoping document. The applicant is responsible for informing the County of the status of such contract. If there is no notice given to the County, all underlying project permit applications shall expire upon the end date of the contract; or

(b) The mutually agreed time frame to complete the draft EIS or final EIS has lapsed.

(4) Project permits which received preliminary approval or a final decision prior to February 22, 2009, that did not include an expiration time frame in the conditions of approval shall expire on June 16, 2020.

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22.05.150 Permit Revocation-Procedure.

- (1) Upon notification by the Director that a substantial violation of the terms and conditions of any previously granted zoning conditional use, shoreline substantial development, or shoreline conditional use permit exists, the Hearing Examiner shall issue a summons as per WCC [2.11.220](#) to the permit holder requiring said permit holder to appear and show cause why revocation of the permit should not be ordered. Failure of the permit holder to respond may be deemed good cause for revocation.
- (2) Upon issuance of a summons as set forth in subsection (1) of this section, the Hearing Examiner shall schedule an open record hearing to review the alleged violations. The summons shall include notice of the hearing and shall be sent to the permit holder and the Director of planning and development services no less than 12 calendar days prior to the date of the hearing. At the hearing the Hearing Examiner shall receive evidence of the alleged violations and the responses of the permit holder, as per the business rules of the Hearing Examiner's office. Testimony shall be limited to that of the division and the permit holder except where additional evidence would be of substantial value in determining if revocation should be ordered. The land use division's evidence may include the testimony of witnesses.
- (3) Upon a showing of violation by a preponderance of the evidence as alleged, the Hearing Examiner may revoke the permit or allow the permit holder a reasonable period of time to cure the violation. If the violation is not cured within the time set by the Hearing Examiner, the permit shall be revoked. Where a time to cure the violation has been set out, no further hearing shall be necessary prior to the revocation. The permit holder shall have the burden of proving that the violation has been cured within the time limit previously set. Such evidence as is necessary to demonstrate that the violation has been cured may be submitted to the Hearing Examiner by either the permit holder or the Director of planning and development services. Any revocation shall be accompanied by written findings of fact and conclusions of law. The permit holder shall be notified of any revocation within 14 calendar days of the revocation.

22.05.160 Appeals.

- (1) Any person with standing may appeal any order, final permit decision, or final administrative determination made by the Director or designee in the administration or enforcement of any chapter to the Hearing Examiner, who has the authority to hear and decide such appeals per WCC [2.11.210](#).
 - (a) To be valid, an appeal shall be filed, on a form provided by the department, with the department within 14 calendar days of the issuance of a final permit decision and shall be accompanied by a fee as specified in the Unified Fee Schedule. The written appeal shall include:
 - i. The action or decision being appealed and the date it was issued;
 - ii. Facts demonstrating that the person is adversely affected by the decision;
 - iii. A statement identifying each alleged error and the manner in which the decision fails to satisfy the applicable decision criteria;
 - iv. The specific relief requested; and

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- v. Any other information reasonably necessary to make a decision on the appeal.
- (b) The Hearing Examiner shall schedule an open record public hearing on the appeal to be held within 60 calendar days following the department's receipt of the application for appeal unless otherwise agreed upon by the County and the appellant.
- (c) A party who fails to appeal within 14 calendar days is barred from appeal, per Chapter [2.11](#) WCC.
- (d) The business rules of the Hearing Examiner shall govern appeal procedures. The Hearing Examiner shall have the authority granted in the business rules, and that authority is incorporated herein by reference. See also WCC [2.11.220](#).

(2) ~~For non-shoreline permits, The applicant, any person with standing, or any County department may appeal any final decision of the Hearing Examiner to superior court or other body as specified by WCC [22.05.020](#). The appellant shall file a written notice of appeal within 21 calendar days of the final decision of the Hearing Examiner, as provided in RCW [36.70C.040](#).~~

~~(2)(3) For shoreline permits, after the issuance of the appeal determination, a party with standing may appeal to the Shorelines Hearings Board a decision on a shoreline substantial development permit, shoreline variance, or shoreline conditional use pursuant to RCW 90.58.180 within 21 days of the "date of filing" as defined in this program and RCW 90.58.140(6). The appeal to the Shorelines Hearing Board shall be filed in accordance with the provisions of Chapter 461-08C WAC. Appeals of a decision of the Department of Ecology shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

Comment [AP12]: Updated per Periodic Review Checklist, Item 2017.d, and Scoping Document Item #2a.

Comment [CES13]: Moved from 23.60.150 (Notice of Decision, Reconsideration, and Appeal)

22.05.170 Annual Report.

Staff shall prepare an annual report on the implementation of this chapter and submit it to the Council.

22.05.180 Interpretation, Conflict and Severability.

- (1) **Interpret to Protect Public Welfare.** In the event of any discrepancies between the requirements established herein and those contained in any other applicable regulation, code or program, the regulations which are more protective of the public health, safety, environment and welfare shall apply.
- (2) **Severability.** The provisions of this chapter are severable. If a section, sentence, clause, or phrase of this title is adjudged by a court of competent jurisdiction to be invalid, the decision shall not affect the remaining portions of this chapter.

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Chapter ~~23.60~~ 22.07 Additional Requirements for Shoreline Permits and Exemptions

Comment [CES14]: Though this is a new chapter, the existing language from Title 20 is not shown as new; only changes to that existing language is shown in strikeout/underline.

~~23.60.005~~ 22.07.010 General Requirements.

- A. In addition to the requirements of WCC Chapter 22.05 (Project Permits), shoreline permits shall be subject to the provisions of this chapter.
- B. To be authorized, all shoreline activities, uses, and developments shall be ~~planned and carried out~~ done in a manner ~~that is~~ consistent with this program and ~~the policy of the Shoreline Management Act~~ as required by RCW 90.58.140(1), regardless of whether a shoreline permit, statement of exemption, shoreline variance, or shoreline conditional use permit is required.
- C. All final shoreline substantial development, variance, and conditional use permit decisions or recommendations shall be filed with the Department of Ecology pursuant to WCC 22.07.060.
- D. A development or use that is listed as a shoreline conditional use pursuant to this program or is an unlisted use must obtain a shoreline conditional use permit even if the development or use does not require a substantial development permit.
- E. When a development, use, or activity is proposed that does not comply with the bulk, dimensional and/or performance standards of the program, such development or use shall only be authorized by approval of a shoreline variance even if the development or use does not require a substantial development permit.
- F. All permits or statements of exemption issued for development, use, or activity within shoreline jurisdiction shall include written findings prepared by the Director, including compliance with bulk and dimensional standards and policies and regulations of this program. The Director may attach conditions to the approval to project permits as necessary to assure consistency of the project with the Act and the program.
- G. Pursuant to WAC 173-27-044, requirements to obtain a substantial development permit, shoreline conditional use permit, shoreline variance, letter of exemption, or other review conducted by a local government to implement the Shoreline Management Program do not apply to:
- 1. Remedial Action.** Any person conducting a remedial action at a facility pursuant to a consent decree, order, or agreed order issued pursuant to chapter 70.105D RCW, or to the Department of Ecology (Ecology) when it conducts a remedial action under chapter 70.105D RCW. Ecology must ensure compliance with the substantive requirements of this chapter through the consent decree, order, or agreed order issued pursuant to chapter 70.105D RCW, or during the Ecology-conducted remedial action, through the procedures developed by Ecology pursuant to RCW 70.105D.090;
 - 2. Boatyard Facilities.** Any person installing site improvements for stormwater treatment in an existing boatyard facility to meet requirements of a national pollutant discharge elimination system stormwater general permit. Ecology must ensure compliance with the substantive requirements of this chapter through the review of engineering reports, site plans, and other documents related to the installation of boatyard stormwater treatment facilities; or

Comment [CES15]: Moved from 22.07.020

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3. Washington State Department of Transportation (WSDOT) facility maintenance and safety improvements. Any Washington State Department of Transportation (WSDOT) projects or activities that meet the conditions of RCW 90.58.356.

Comment [CES16]: Language from RCW 90.58.355.

A.H. All applications for shoreline substantial development permits or permit revisions shall be submitted to the Department of Ecology upon a final decision by local government pursuant to WAC 173-27-130. "Final decision by local government" shall mean the order of ruling, whether it be an approval or denial, that is established after all local administrative appeals related to the permit have concluded or the opportunity to initiate such appeals has lapsed.

~~23.60.22.07.020~~ Exemptions from Shoreline Substantial Development Permits ~~process.~~

A. ~~23.60.021~~ Application and interpretation.

1. An exemption from the substantial development permit process is not an exemption from compliance with the Act, ~~or~~ this program, or from any other regulatory requirements. To be authorized, all uses, ~~and~~ developments, and activities must be consistent with the policies and regulatory provisions of this program and the Act. A statement of exemption shall be obtained for exempt activities consistent with the below provisions ~~of WCC 23.60.020.~~
2. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemptions from the substantial development permit process.
3. The burden of proof that a development, ~~or~~ use, or activity is exempt is on the applicant/proponent of the exempt development action.
4. If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire project.
5. ~~A development or use that is listed as a conditional use pursuant to this program or is an unlisted use, must obtain a conditional use permit even if the development or use does not require a substantial development permit.~~
6. ~~When a development or use is proposed that does not comply with the bulk, dimensional and/or performance standards of the program, such development or use shall only be authorized by approval of a shoreline variance even if the development or use does not require a substantial development permit.~~
7. ~~All permits or statements of exemption issued for development or use within shoreline jurisdiction shall include written findings prepared by the administrator, including compliance with bulk and dimensional standards and policies and regulations of this program. The administrator may attach conditions to the approval of exempt developments and/or uses as necessary to assure consistency of the project with the Act and the program.~~

Comment [CES17]: Moved to 22.07.010

B. ~~23.60.022~~ Exemptions listed.

~~1.B.~~ The following activities shall be considered exempt from the requirement to obtain a shoreline substantial development permit. A statement of exemption, as provided for in WCC 23.60.023 of this program shall be required for those activities listed in WCC 23.60.023(B) and (C). Certain developments, uses, or activities are exempt from the substantial development permit

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requirements of the Act and this program. These developments, uses, or activities are those set forth in WAC 173-27-040 (or as amended), and do not meet the definition of substantial development under RCW 90.58.030(3)(e). A summary of exempt developments is listed below, the application of which shall be guided by WAC 173-27-040 (or as amended).

~~2.1.~~ Any development of which the total cost or fair market value, whichever is higher, does not exceed ~~\$5,718,047~~, or as amended by the state Office of Financial Management, if such development does not materially interfere with the normal public use of the water or shorelines of the state. For the purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state as defined in RCW 90.58.030(2)(c). The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

~~3.2.~~ Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. Normal maintenance includes those usual acts to prevent a decline, lapse or cessation from a lawfully established condition. Normal repair means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair causes substantial adverse effects to the shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or the environment.

~~4.3.~~ Construction of the normal protective bulkhead common to single-family residences. A normal protective bulkhead includes those structural and nonstructural developments installed at or near, and parallel to, the ordinary high water mark for the sole purpose of protecting an existing single-family residence and appurtenant structures from loss or damage by erosion. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used for backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Washington Department of Fish and Wildlife.

~~5.4.~~ Emergency construction necessary to protect property from damage by the elements. An emergency is an unanticipated and imminent threat to public health, safety or the environment

Comment [CES18]: This number gets updated every 5 years by OFM. As of 2017 it was \$7,047. (Though set in code here, PDS updates our permit application, website, and handouts to reflect OFM's newest threshold amount whenever it's published.

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that requires immediate action within a time too short to allow full compliance with this program. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the ~~administrator~~ Director to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit that would have been required, absent an emergency, pursuant to Chapter 90.58 RCW, Chapter 173-27 WAC or this program, shall be obtained. All emergency construction shall be consistent with the policies of Chapter 90.58 RCW and this program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

~~6-5.~~ Construction and practices normal or necessary for farming, irrigation, and ranching activities, including agricultural service roads and utilities, construction of a barn or similar agricultural structure, and the construction and maintenance of irrigation structures including, but not limited to, head gates, pumping facilities, and irrigation channels; provided, that this exemption shall not apply to agricultural activities proposed on land not in agricultural use on December 17, 2003; and further provided, that a feedlot of any size, all processing plants, other activities of a commercial nature, or alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.

~~7-6.~~ Construction or modification, by or under the authority of the Coast Guard or a designated port management authority, of navigational aids such as channel markers and anchor buoys.

~~8-7.~~ Construction on shorelands by an owner, lessee, or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of 35 feet above average grade level and that meets all requirements of the state agency or local government having jurisdiction thereof. Single-family residence means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance as defined in Chapter 23.60 WCC 23.110.010.

~~9-8.~~ Construction of a dock, including a shared moorage, designed for pleasure craft only, for the private noncommercial use of the owners, lessee, or contract purchaser of a single-family or multifamily residence. A dock is a landing and moorage facility for watercraft and does not include recreational decks, storage facilities or other appurtenances. The private dock exemption applies if either:

a. In salt waters, the fair market value of the dock does not exceed \$2,500; or

b. In fresh waters the fair market value of the dock does not exceed:

i. \$20,000 for docks that are constructed to replace existing docks, are of equal or lesser square footage than the existing dock being replaced

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- 1 ii. \$10,000 for all other docks constructed in fresh waters,
2 ~~but~~ However, if subsequent construction having a fair market value exceeding \$2,500 occurs
3 within five years of the completion of the prior construction, and the combined fair market
4 value of the subsequent and prior construction exceeds the amount specified above, the
5 subsequent construction shall be considered a substantial development for the purpose of this
6 program. For the purpose of this section, saltwater shall include the tidally influenced marine
7 and estuarine water areas of the state including the Pacific Ocean, Strait of Juan de Fuca, Strait
8 of Georgia, and Puget Sound local marine waters and all associated bays, inlets, and estuaries.
9 ~~10.9.~~ Operation, maintenance, or construction of canals, waterways, drains, reservoirs, or
10 other facilities that now exist or are hereafter created or developed as a part of an irrigation
11 system for the primary purpose of making use of system waters including return flow and
12 artificially stored ground water for the irrigation of lands; provided, that this exemption shall not
13 apply to construction of new irrigation facilities proposed after December 17, 2003.
14 ~~11.10.~~ The marking of property lines or corners on state-owned lands, when such marking does
15 not significantly interfere with normal public use of the surface of the water.
16 ~~12.11.~~ Operation and maintenance of any system of dikes, ditches, drains, or other facilities
17 existing on June 4, 1975, that were created, developed or utilized, primarily as a part of an
18 agricultural drainage or diking system.
19 ~~13.12.~~ Any project with a certification from the governor pursuant to Chapter 80.50 RCW.
20 ~~14.13.~~ Site exploration and investigation activities that are prerequisite to preparation of a
21 development application for authorization under this program, if:
22 i. ~~a.~~ The activity does not interfere with the normal public use of surface waters;
23 ii. ~~b.~~ The activity will have no significant adverse impact on the environment including but not
24 limited to fish, wildlife, fish or wildlife habitat, water quality and aesthetic values;
25 iii. ~~c.~~ The activity does not involve the installation of any structure and, upon completion of the
26 activity, the vegetation and land configuration of the site are restored to conditions existing
27 before the activity;
28 iv. ~~d.~~ A private entity seeking development authorization under this section first posts a
29 performance bond or provides other evidence of financial responsibility to the
30 ~~administrator~~ Director to ensure that the site is restored to preexisting conditions; and
31 v. ~~e.~~ The activity is not subject to the permit requirements of RCW 90.58.550.
32 ~~15.14.~~ The process of removing or controlling aquatic noxious weeds, as defined in RCW
33 17.26.020, through the use of an herbicide or other treatment methods applicable to weed
34 control that is recommended by a final environmental impact statement published by the
35 Department of Agriculture or the Department of Ecology jointly with other state agencies under
36 Chapter 43.21C RCW.
37 ~~16.15.~~ Watershed restoration projects as defined in Chapter ~~23.60-23.110~~ WCC and WAC 193-
38 27-040(2)(o) ~~by RCW 89.08.460.~~ The ~~administrator~~ Director shall review the projects for
39 consistency with the program in an expeditious manner and shall issue its decision along with

Comment [CES19]: Amended to more precisely reflect WAC 173-27-040

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- any conditions within 45 days of receiving a complete application form from the applicant/proponent. No fee may be charged for accepting and processing applications for watershed restoration projects as defined in Chapter 23.60-23.110 WCC (Definitions).
- ~~17.16.~~ A public or private project, the primary purpose of which is to improve fish or wildlife habitat or fish passage, including restoring native kelp, eelgrass beds and native oysters, when all of the following apply:
- ~~i.a.~~ The project has been approved in writing by the Department of Fish and Wildlife as necessary for the improvement of the habitat or passage and appropriately designed and sited to accomplish the intended purpose;
- ~~i.b.~~ The project received hydraulic project approval by the Department of Fish and Wildlife pursuant to Chapter 77.55 RCW; and
- c. The ~~administrator~~ Director has determined that the project is consistent with this program. The ~~administrator~~ Director shall make such determination in a timely manner and provide it by letter to the project proponent.
- ~~18.17.~~ The external or internal retrofitting of an existing structure with the exclusive purpose of compliance with the Americans with Disabilities Act of 1990 or to otherwise provide physical access to the structure by individuals with disabilities.
- C. ~~23.60.023~~ **Statements of Exemption.**
1. Statements of Exemption are considered Type I applications pursuant to WCC 22.05.020 (Project Permit Processing Table).
- ~~1-2.~~ The ~~administrator~~ Director is hereby authorized to grant or deny requests for statements of exemption from the shoreline substantial development permit ~~requirement process~~ for developments, uses, or activities and developments within shorelines that are specifically listed in WCC 23.60.022 in subsection (B). Such statements shall be applied for on forms provided by the administrator. The statement shall be in writing and shall indicate the specific exemption of this program that is being applied to the development, and shall provide a summary of the administrator's analysis of the consistency of the project with this program and the Act. As appropriate, such statements of exemption shall contain conditions and/or mitigating measures of approval to achieve consistency and compliance with the provisions of the program and Act. A denial of an exemption shall be in writing and shall identify the reason(s) for the denial. The administrator's actions on the issuance of a statement of exemption or a denial are subject to appeal pursuant to WCC 23.60.150.
- ~~2-3.~~ Exempt activities related to any of the following shall not be conducted until a statement of exemption has been obtained from the ~~administrator~~ Director: dredging, flood control works and instream structures, development within an archaeological or historic site, clearing and ground disturbing activities such as landfill or excavation, dock, shore stabilization, freestanding signs, or any development within an aquatic or natural shoreline designation; provided, that no separate written statement of exemption is required for the construction of a single family residence when a county building permit application has been reviewed and approved by the administrator; provided further, that no statement of exemption is required for emergency

Comment [CES20]: Added pursuant to DOE checklist.

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Comment [CES21]: Covered by other sections of code

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development pursuant to WAC 173-27-040(2)(d) and that other project permits (e.g., building permits), may serve as a statement of exemption when they contain a statement of review and compliance with the Shoreline Management Program.

~~3.4. No statement of exemption shall be required for other uses or developments exempt pursuant to WCC 23.60.022 unless the administrator has cause to believe a substantial question exists as to qualifications of the specific use or development for the exemption or the administrator determines there is a likelihood of adverse impacts to shoreline ecological functions. Whether or not a written statement of exemption is issued, all permits issued within the area of shorelines shall include a record of review actions prepared by the administrator/Director, including compliance with bulk and dimensional standards and policies and regulations of this program. The administrator may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the Act and this program.~~

Comment [CES22]: Covered by the new language in (2)

~~4.5. A notice of decision for shoreline statements of exemption shall be provided to the applicant/proponent and any party of record. Such notices shall also be filed with the Department of Ecology, pursuant to the requirements of WAC 173-27-050 when the project is subject to one or more of the following federal permitting requirements:~~

Comment [CES23]: Covered by 22.05.100(5)

- a. A U.S. Army Corps of Engineers Section 10 permit under the Rivers and Harbors Act of 1899. (The provisions of Section 10 of the Rivers and Harbors Act generally apply to any project occurring on or over navigable waters. Specific applicability information should be obtained from the Corps of Engineers.); or
- b. A Section 404 permit under the Federal Water Pollution Control Act of 1972. (The provisions of Section 404 of the Federal Water Pollution Control Act generally apply to any project that may involve discharge of dredge or fill material to any water or wetland area. Specific applicability information should be obtained from the Corps of Engineers.)

~~5. Whenever the exempt activity also requires a U.S. Army Corps of Engineers Section 10 permit under the Rivers and Harbors Act of 1899 or a Section 404 permit under the Federal Water Pollution Control Act of 1972, a copy of the written statement of exemption shall be sent to the applicant/proponent and Ecology pursuant to WAC 173-27-050.~~

Comment [CES24]: Covered by (5)

22.07.030 23.60.010 Shoreline Substantial Development Permits criteria.

~~A. A shoreline substantial development permit shall be required for all proposed uses, development, and activities within the shoreline jurisdiction unless the proposal is specifically exempt pursuant to WCC 22.07.020 (Exemptions).~~

Comment [CES25]: Moved from below.

~~B. All shoreline substantial development permits are considered Type II permits (see WCC 22.05.020, Project Permit Processing Table), except those the Director has determined meets the following criteria, in which case it shall be considered a Type III permit:~~

~~A. The administrator shall determine whether an application requires a public hearing pursuant to the criteria below no later than 15 days after the minimum public comment period provided by WCC 23.60.080. An open record public hearing shall be required for all of the following:~~

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1. The proposal has a cost or market value in excess of ~~\$1500,000~~, except for single-family residences, agriculture, and commercial forestry, ~~and ecological restoration projects~~; or
- ~~2. The proposal would result in development of an area larger than five acres; or~~
- ~~3. The proposal is a new or expanded marina, pier, aquaculture structure, any building over 35 feet high, mine, dam, stream diversion, landfill; or~~
- ~~4. The administrator has reason to believe the proposal would be controversial based on public response to the notice of receipt of application and other information; or~~
- ~~5.2. The proposal is determined to have a significant adverse impact on the environment and an environmental impact statement is required in accordance with the State Environmental Policy Act; or.~~
- ~~6.3. The proposal requires a major variance and/or conditional use approval pursuant to this program; or~~
- ~~7. The use or development requires an open record public hearing for other Whatcom County approvals or permits.~~
- ~~B. A substantial development permit shall be required for all proposed uses, and development, and activities within the of shorelines jurisdiction unless the proposal is specifically exempt pursuant to WCC 23.60.0220.~~
- C. In order to be approved, the decision maker must find that the proposal is consistent with the Shoreline Management Act and the Shoreline Management Program following criteria:
 - ~~1. All regulations of this program appropriate to the shoreline designation and the type of use or development proposed shall be met, except those bulk and dimensional standards that have been modified by approval of a shoreline variance under WCC 23.60.030.~~
 - ~~2. All policies of this program appropriate to the shoreline area designation and the type of use or development activity proposed shall be considered and substantial compliance demonstrated.~~
 - ~~3. For pProjects located on shorelines of statewide significance, the policies of Chapter 23.40 WCC shall also be adhered to.~~
- D. In the granting of all shoreline substantial development permits, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if shoreline substantial development permits were granted for other developments in the area where similar circumstances exist, the sum of the permitted actions should also remain consistent with the policy of RCW 90.58.020 and should not produce significant adverse effects to the shoreline ecological functions and processes or other users.

Comment [CES26]: Increased due to inflation. This amount has not been changed since 1986.

Comment [CES27]: Proposed for deletion since developments of 5 acres or more would undoubtedly be valued at more than \$500,000.

Comment [CES28]: Covered by the shoreline use table in conjunction with subsection (c).

Comment [CES29]: Not necessary; already covered by the modified use table in T-23.

Comment [CES30]: Proposed for deletion as there is no criteria for staff to objectively determine when a project might be controversial.

Comment [CES31]: Covered by 22.05.030

Comment [CES32]: Moved to (A)

Comment [CES33]: P/C motion to amend as shown. Carries 7-2

22.07.040 23.60.040-Shoreline Conditional Use Permits criteria.

- A. The purpose of a shoreline conditional use permit is to allow greater flexibility in administering the use regulations of this program in a manner consistent with the policy of RCW 90.58.020. In authorizing a shoreline conditional use, special conditions may be attached to the permit by the county or the Department of Ecology to control any undesirable effects of the proposed use.
- B. Uses specifically classified or set forth in this program as shoreline conditional uses and unlisted uses may be authorized, provided the applicant/proponent can demonstrate all of the following:

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1. That the proposed use will be consistent with the policy of RCW 90.58.020 and this program.
2. That the proposed use will not interfere with normal public use of public shorelines.
3. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area.
4. That the proposed use will not cause adverse effects to the shoreline environment in which it is to be located.
5. That the public interest suffers no substantial detrimental effect.

C. All shoreline conditional use permits are considered Type III permits (see WCC 22.05.020, Project Permit Processing Table), except those for single-family residential development, uses, or activities, which shall be processed as a Type II permit.

D. Other uses not specifically classified or set forth in this program, including the expansion or resumption of a nonconforming use pursuant to WCC 23.50.0170 (Nonconforming Uses), may be authorized as shoreline conditional uses, provided the applicant/proponent can demonstrate that the proposal will satisfy the criteria set forth in subsection (B) of this section, and that the use clearly requires a specific site location on the shoreline not provided for under the program, and extraordinary circumstances preclude reasonable use of the property in a manner consistent with the use regulations of this program. Uses that are prohibited cannot be authorized by a shoreline conditional use permit.

E. In the granting of all shoreline conditional use permits, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if shoreline conditional use permits were granted for other developments in the area where similar circumstances exist, the sum of the shoreline conditional uses and their impacts should also remain consistent with the policy of RCW 90.58.020 and should not produce a significant adverse effect to the shoreline ecological functions and processes or other users.

F. Permits and/or variances applied for or approved under county zoning or subdivision code requirements shall not be construed as shoreline variances under this program.

Comment [CES34]: Moved to General Requirements section.

22.60.03022.07.050 Shoreline Variances permit criteria.

A. The purpose of a shoreline variance is to grant relief to specific bulk or dimensional requirements set forth in this the Shoreline Management Program and any associated standards appended to this program such as critical areas buffer requirements where there are extraordinary or unique circumstances relating to the property such that the strict implementation of this program would impose unnecessary hardships on the applicant/proponent or thwart the policy set forth in RCW 90.58.020. Use restrictions may not be varied.

B. Shoreline variances are considered Type III applications pursuant to WCC 22.05.020 (Project Permit Processing Table).

B-C. Shoreline variances will be granted in any circumstance where denial would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

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- C. ~~Proposals that would otherwise qualify as a reasonable use pursuant to WCC 16.16.270(A) shall require a shoreline variance and shall meet the variance criteria in this section.~~
- D. Shoreline variances for development and/or uses that will be located landward of the ordinary high water mark (OHWM) and/or landward of any wetland may be authorized provided the applicant can demonstrate all of the following:
1. That the strict application of the bulk or dimensional criteria set forth in ~~this program~~ the Shoreline Management Program precludes or significantly interferes with reasonable permitted use of the property;
 2. That the hardship described in subsection (A1) of this section is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of this program, and not, for example, from deed restrictions or the applicant's/proponent's own actions;
 3. That the design of the project ~~will be~~ is compatible with other ~~permitted~~ authorized uses ~~activities within the area and with uses planned for the area under the comprehensive plan and shoreline master program and will not cause adverse effects on adjacent properties or impacts to the shoreline environment;~~
 4. That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief;
 5. That the public interest will suffer no substantial detrimental effect;
 6. That the public rights of navigation and use of the shorelines will not be materially interfered with by the granting of the variance; and
 7. Mitigation is provided to offset unavoidable adverse impacts caused by the proposed development or use.
- E. ~~Shoreline variances permits~~ for development and/or uses that will be located waterward of the ordinary high water mark (OHWM), as defined herein, or within any wetland as defined herein, may be authorized, provided the applicant can demonstrate all of the following:
1. ~~That the strict application of the bulk, dimensional or performance standards set forth in this program precludes all reasonable use of the property; and~~
 2. 1. That the proposal is consistent with the criteria established under subsections (D) (1) through (7) of this section; and
 3. 2. That the public rights of navigation and use of the shorelines will not be adversely affected.
- ~~Other factors that may be considered in the review of variance requests include the conservation of valuable natural resources and the protection of views from nearby roads, surrounding properties and public areas; provided, the criteria of subsection D of this section are first met. In addition, variance requests based on the applicant's/proponent's desire to enhance the view from the subject development may be granted;~~
- ~~where there are no likely detrimental effects to existing or future users, other features, or shoreline ecological functions and/or processes, and~~
- ~~where reasonable alternatives of equal or greater consistency with this program are not available.~~

Comment [CES35]: This section's text amended to mimic WAC 173-27-170(3)

Comment [CES36]: Already addressed in subsection (D).

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4. ~~In platted residential areas, variances shall not be granted that allow a greater height or lesser shore setback than what is typical for the immediate block or area.~~

Comment [AP37]: Revised per Scoping Document, Item #3a and staff comment #28

Comment [CES38]: This is covered by the Variance Criteria for protection of public interest.

Comment [CES39]: Moved to General Requirements section.

F. In the granting of all shoreline variances, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if shoreline variances were granted to other developments in the area where similar circumstances exist, the total of the variances should also remain consistent with the policy of RCW 90.58.020 and should not produce significant adverse effects to the shoreline ecological functions and processes or other users.

G. ~~Permits and/or variances applied for or approved under other county codes such as WCC Title 20 or 21 shall not be construed as shoreline permits under this program.~~

Comment [CES40]: General provision moved to appropriate section.

23.60.050 Minimum application requirements.

~~Where other approvals or permits are required for a use or development that does not require an open record hearing, such approvals or permits shall not be granted until a shoreline approval or permit is granted. All shoreline approvals and permits shall include written findings prepared by the administrator documenting compliance with bulk and dimensional standards and other policies and regulations of this program.~~

Comment [RCE41]: Don't need, as permit review consolidation is required

~~A complete application for a substantial development, conditional use, or variance permit shall contain all materials required in the Department's administrative manual; provided, that the administrator may vary or waive these requirements as provided in the manual and may vary or waive these requirements on a case-by-case basis. The administrator may require additional specific information depending on the nature of the proposal and the presence of sensitive ecological features or issues related to compliance with other county requirements.~~

Comment [CES42]: Moved to 22.05.050

23.60.060 Pre-application conference.

~~Prior to filing a permit application for a shoreline substantial development permit, variance or conditional use permit decision:~~

Comment [CES43]: Covered by 22.05.040

~~The applicant shall contact the County to schedule a pre-application conference, which shall be held prior to filing the application; provided, that such meetings shall not be required for development activities associated with shoreline restoration projects, agriculture, commercial forestry, or the construction of a single family residence.~~

23.60.070 Fees.

Comment [CES44]: Covered by 22.05.050(1)

A. ~~Required fees for all shoreline substantial development permits, shoreline conditional use permits, shoreline variances, statements of exemption, appeals, pre-application conferences and other required reviews and/or approvals shall be paid to the county at the time of application in accordance with the Whatcom County Unified Fee Schedule in effect at that time and Chapter 22.05 WCC.~~

B. ~~When any given project requires more than one of the following permits or applications, the total amount of fees shall be reduced pursuant to WCC 22.25.030:~~

1. ~~Preliminary plat application.~~

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~~2. Rezone application.~~

~~3. Major development permit.~~

~~4. Planned unit development.~~

~~5. Binding site plan.~~

~~C. When any project requires a shoreline conditional use permit or shoreline variance in addition to a shoreline substantial development permit, the fees for the conditional use or variance shall be reduced by half.~~

~~D. In the event that actions of an applicant result in the repetition of the review, inspections and other steps in the approval process, those items or steps repeated shall be charged to and paid by the applicant prior to any further processing of the application by the county. The cost shall be in accordance with the adopted fee schedule.~~

~~E. If an application is withdrawn within 30 days of submittal, and no work has commenced at the site of the proposal for which the application was made, a refund of not more than 50 percent of the shoreline fees paid may be granted by the administrator. This amount may be reduced where staff time, public notice and other costs exceed 50 percent of the fees paid.~~

~~23.60.080 Notice of application.~~

~~A. Upon receipt of a completed shoreline substantial development permit, shoreline variance, or shoreline conditional use permit application the County shall issue a notice of application for a proposed land use action in the manner set forth in WCC 22.05.070.~~

~~(9) The rights of treaty tribes to resources within their usual and accustomed areas shall be accommodated through the notification and comment provisions of the permit review process. Tribal treaty rights may be addressed through specific permit conditions. Direct coordination between tribes and the applicant/proponent is encouraged.~~

Comment [MD45]: Covered by 22.05.070. Draft revision per Scoping Document, Item #4a (staff comment #31).

Comment [RCE46]: Moved to 23.05.040(F)(3)

~~23.60.090 Permit application review.~~

~~A. All shoreline permit applications, exemptions, or other approvals shall be subject to the provisions of this program that are in effect at the time of application.~~

~~B. To facilitate review of an application the decision maker shall consider any or all of the following:~~

~~1. The application and attached information;~~

~~2. The SEPA checklist, threshold determination, environmental impact statement, or other environmental studies and/or documentation;~~

~~3. Written comments from interested persons;~~

~~4. Information and recommendations from any public agency and from the administrator or director in cases where the administrator or director is not the decision maker;~~

~~5. Information or comment presented at a public hearing, if held, on the application; and~~

~~6. The policy and provisions of the Act and this program including the criteria enumerated in WCC 23.60.010, 23.60.030 and 23.60.040, as applicable.~~

Comment [CES47]: Covered by 22.05.060 (Vesting)

~~C. The decision maker shall process project permit applications for shoreline substantial development permits, shoreline variance, and shoreline conditional use permits in compliance with the provisions of Chapter 22.05-WCC.~~

Comment [CES48]: Moved to 22.05.100 Consistency Review and Recommendations

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D. ~~The decision maker shall process project permit applications for shoreline statements of exemption in accordance with the provisions of Chapter 22.05 WCC and WCC 23.60.023(A).~~

Comment [CES49]: No longer needed as permit procedures have been combined.

E. ~~Any application for a shoreline permit or approval that remains inactive for a period of 180 days shall expire and a new application and repayment of fees shall be required to reactivate the proposal; provided, that the administrator may grant a single 90-day extension for good cause. Delays such as those caused by public notice requirements, State Environmental Policy Act review, litigation directly related to the proposal, or changes in government regulations shall not be considered as part of the inactive period.~~
~~If a shoreline permit is denied, no reapplication for the same or essentially similar development may be made until one year from the date of denial.~~

Comment [CES50]: Moved to 22.05.050 Application and Determination of Completeness

Comment [CES51]: Don't need this; covered by 22.05.030

23.60.100 Consolidated Permit Review.

A. ~~Whenever an application for a project permit under the program requires a project permit or approval under another County permit authority, such as zoning or subdivision, the shoreline project permit application, time requirements, and notice provisions for processing the shoreline permit shall apply, in addition to those of other regulatory programs.~~
~~provisions of Chapter 22.05 WCC shall apply to the consolidated application, review, and approval of applications that require an open record hearing.~~
B. ~~Any shoreline use or development that is subject to other approvals or permits that requires an open record hearing under another permit authority, such as zoning or subdivision, shall be subject to consolidated review and the decision maker designated for the open record hearing shall be the decision maker for the consolidated review.~~

23.60.110 State Environmental Policy Act (SEPA) compliance.

A. ~~Whenever an application for shoreline substantial development permit, shoreline variance, shoreline conditional use permit, or statement of exemption is subject to the rules and regulations of SEPA (Chapter 43.21C RCW), the review requirements of SEPA, including time limitations, shall apply, where applicable.~~
B. ~~Applications for shoreline permit(s) or approval(s) that are not categorically exempt under SEPA shall be subject to environmental review by the responsible official of Whatcom County pursuant to the State Environmental Policy Act (Chapter 197-11 WAC).~~
C. ~~As part of SEPA review, the Responsible Official may require additional information regarding the proposed development in accordance with Chapter 197-11 WAC.~~
D. ~~Failure of the applicant/proponent to submit sufficient information for a threshold determination to be made shall be grounds for the Responsible Official to determine the application incomplete.~~

Comment [RCE52]: Deleted, as this is covered in permit application and permit types.

23.60.120 Burden of proof.

~~Permit applicants/proponents have the burden of proving that the proposed development is consistent with the criteria set forth in the Act and this program.~~

Comment [CES53]: Moved to 22.05.100 Permit Consistency Review and Recommendations

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22.60.130 Public Hearings.

A. ~~An open record public hearing on shoreline permit applications shall be held in accordance with the provisions of Chapter 22.05 WCC, unless a continuance is granted pursuant to the rules and procedures of the Hearing Examiner or other hearing body and subject to time requirements for compliance with the State Environmental Policy Act.~~

B. ~~Repealed by Ord. 2018-032.~~

C. ~~Repealed by Ord. 2018-032.~~

D. ~~Public hearing requirements for permit appeals shall be processed according to WCC 23.60.150.~~

Comment [CES54]: Pertinent sections moved to 22.05.090 Open Record Public Hearings

22.60.140 Permit conditions.

In granting, revising, or extending a shoreline permit, the decision maker may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other elements of the proposed development deemed necessary to assure that the development will be consistent with the policy and provisions of the Act and this program as well as the supplemental authority provided in Chapter 43.21C RCW as applicable. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to require monitoring with future review or reevaluation to assure conformance with the Act and this program. If the monitoring plan is not implemented, the permittee may be found to be noncompliant and the permit may be rescinded in accordance with WCC 23.60.180.

Comment [CES55]: Moved to 22.05.100 Permit Consistency Review and Recommendations

22.07.060 Filing Shoreline Permits with the Department of Ecology

A. After all local permit administrative appeals or reconsideration periods are complete, the County will deliver the final permit using return receipt requested mail or email to the Department of Ecology regional office and the attorney general.

B. Proposals that require both shoreline conditional use permits and/or shoreline variances shall be delivered simultaneously with any shoreline permit for the project.

C. The permit and documentation of final local decision will be delivered together the following information:

1. A copy of the complete application;

2. Findings and conclusions that establish the basis for the decision, including but not limited to identification of shoreline environment designation(s), applicable program policies and regulations, and the consistency of the project with appropriate review criteria for the type of permit(s);

3. The final decision of the local government;

4. A completed permit data sheet (WAC 173-27-990, Appendix A); and

5. Where applicable, local government shall also file the applicable documents required by SEPA, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under Chapter 43.21C RCW.

6. When the project has been modified in the course of the local review process, plans or text shall be provided that clearly indicate the final approved plan.

F. Development pursuant to a shoreline substantial development permit, shoreline variance, or shoreline conditional use permit shall not begin and shall not be authorized until 21 days after the

Comment [AP56]: Updated per Periodic Review Checklist, Item 2017.d, and Scoping Document Items #2a and 5c.

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"date of filing," as defined in this program Title 23 (Shoreline Management Program) and RCW 90.58.140(6), or until all review proceedings before the Shorelines Hearings Board have terminated.

G. Upon approval of a permit revision, the decision maker shall file a copy of the revised site plan and a detailed description of the authorized changes to the original permit with the Department of Ecology together with a final ruling and findings supporting the decision based on the requirements of this section. In addition, the decision maker shall notify parties of record of the action.

Comment [AP57]: Updated per Periodic Review Checklist, Item 2017.d, and Scoping Document Item #2a.

Comment [CES58]: Moved from 23.60.160
Initiation of development

23.60.150 Notice of Decision, Reconsideration and Appeal.

~~A notice of decision for action on a shoreline substantial development permit, shoreline variance, or shoreline conditional use permit shall be provided to the applicant/proponent and any party of record in accordance with the review procedures of Chapter 22.05 WCC, and at least 10 days prior to filing such decisions with the Department of Ecology pursuant to WAC 173-27-130. Decisions filed with the Department of Ecology shall contain the following information:~~

Comment [CES59]: Covered by 22.05.110

~~After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes, the County will mail or hand deliver the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General.~~

Comment [CES60]: Moved to 22.07.070

~~Projects that require both Conditional Use Permits and or Variances shall be mailed simultaneously with any Substantial Development Permits shoreline permit for the project.~~

~~The permit and documentation of final local decision will be mailed together the following information:~~

a. A copy of the complete application;

b. Findings and conclusions that establish the basis for the decision including but not limited to identification of shoreline environment designation(s), applicable program policies and regulations and the consistency of the project with appropriate review criteria for the type of permit(s);

c. The final decision of the local government;

d. A completed permit data sheet (see Appendix A of this title); and

e. Where applicable, local government shall also file the applicable documents required by SEPA, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under Chapter 43.21C RCW.

f. When the project has been modified in the course of the local review process, plans or text shall be provided that clearly indicate the final approved plan.

A. Notice of decision for shoreline statements of exemption shall comply with WCC 22.05.110(1) and 23.60.023(E).

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~~Any person with standing may appeal any order, final permit decision, or final administrative determination made by the director or designee in the administration of this program.~~

Comment [CES61]: Covered by 22.05.110(1)

~~Administrative Appeal Procedures.~~

~~Administrative appeals are processed in accordance with WCC 22.05.160.~~

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~~After the issuance of the appeal determination, a party with standing may appeals to the Shorelines Hearings Board of a decision on a shoreline substantial development permit, shoreline variance, or shoreline conditional use pursuant to RCW 90.58.180 within 21 days of the "date of filing," as defined in this program and RCW 90.58.140(6). The appeal to the Shorelines Hearing Board shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

Comment [CES62]: Moved to 22.05.160 (Appeals)

B. This program shall only establish standing for parties of record for shoreline substantial development permits, shoreline variances, or shoreline conditional use permits. Standing as a party of record is not established by this program for exempt actions pursuant to WCC 23.60.022; provided, that in such cases standing may be established through an associated permit process that provides for public notice and provisions for parties of record.

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F. The applicant/proponent or any party of record may request reconsideration of any final action by the decision maker within 10 days of notice of the decision. Such requests shall be filed on forms supplied by the county. Grounds for reconsideration must be based upon the content of the written decision. The decision maker is not required to provide a written response or modify his/her original decision. He/she may initiate such action as he/she deems appropriate. The procedure of reconsideration shall not preempt or extend the appeal period for a permit or affect the date of filing with the Department of Ecology, unless the applicant/proponent requests the abeyance of said permit appeal period in writing within 10 days of a final action.

G. Appeals to the Shorelines Hearings Board of a decision on a shoreline substantial development permit, shoreline variance or shoreline conditional use permit may be filed by the applicant/proponent or any aggrieved party pursuant to RCW 90.58.180 within 21 days of filing the final decision by Whatcom County with the Department of Ecology.

C. Whatcom County shall consider an appeal of a decision on a shoreline substantial development permit, shoreline variance or shoreline conditional use only when the applicant/proponent waives his/her right to a single appeal to the Shorelines Hearings Board. Such waivers shall be filed with the county in writing concurrent with a notice of appeal within 10 days of a final action. When an applicant/proponent has waived his/her right to a single appeal, such appeals shall be processed in accordance with the appeal procedures of subsection H of this section and shall be an open record hearing before the hearing examiner.

Comment [AP63]: Removed per Scoping Document, Item #5c.

H. ~~With the exception of a shoreline substantial development permit, a~~Any order, requirement or administrative permit decision, or determination by the administrator based on a provision of this program, including the issuance of a statement of exemption or denial, except a shoreline substantial development permit, may be the subject of an appeal to the office of the hearing examiner by any aggrieved person. Such appeals shall be processed in accordance with the appeal procedures of subsection H of this section and shall be an open record hearing before the hearing examiner.

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I. Appeal Procedures:

Comment [MD64]: Draft revision per Scoping Document, Items #4a and 5c (staff comment #34).

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1. Appeals shall be filed on forms supplied by the county within 10 calendar days of the issuance of a substantial development permit, shoreline variance or shoreline conditional use permit and within 20 calendar days of any other action of the administrator being appealed.
2. A public hearing on the appeal shall be held within 45 working days following receipt of the application for appeal.
3. Legal notice of the public hearing shall be made by mailing notice of time, date, and location of the hearing to the appellant, any parties of record, the Washington Department of Ecology, and the administrator at least 15 days prior to the hearing.
4. A decision by the hearing examiner shall be mailed within 10 working days of the public hearing to all parties of record unless otherwise mutually agreed to by all parties to the appeal.
5. Any party of record may request a closed record review of the hearing examiner's decision issued under subsection (H)(4) of this section by the county council. Such an appeal shall be filed with the county council on forms supplied by the county within 10 calendar days of the written decision. If appeal is made to the county council, notice of appeal shall be provided to all parties of record at least 15 days prior to consideration by the county council. The council shall meet to review the hearing examiner's decision within 21 days of transmittal thereof, at which time it may approve or disapprove the application, or remand the matter to the hearing examiner.
6. The time period for appeal to the Shorelines Hearings Board shall begin after the decision maker has filed the final county decision with the Department of Ecology.

~~22.60.160~~ Initiation of development.

~~Development pursuant to a shoreline substantial development permit, shoreline variance, or conditional use permit shall not begin and shall not be authorized until 21 days after the "date of filing" or until all review proceedings before the Shorelines Hearings Board have terminated.~~

~~A. Date of Filing.~~

1. "Date of filing" of a substantial development permit is the date of actual receipt of the decision by the Department of Ecology.
2. The "date of filing" for a shoreline variance or shoreline conditional use permit shall mean the date the permit decision rendered by the Department of Ecology is transmitted by the department to the county and the applicant/proponent.

~~22.07.07022.60.170~~ Revisions to Shoreline Permits.

- A. A revision is required whenever the applicant/proponent proposes substantive changes to the design, terms, or conditions of a project from that which is approved in the permit and/or statement of exemption. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, this program, or the Act. ~~Changes that are not substantive in effect do not require a revision.~~
- B. An application for a revision to a shoreline permit shall be submitted to the ~~administrator~~ Director. The application shall include detailed plans and text describing the proposed changes. The County decision maker that approved the original permit may approve the request upon a finding that the

Comment [CES65]: Moved to 22.07.060 (Filing Shoreline Permits with the Department of Ecology)

Comment [AP66]: Updated per Periodic Review Checklist, Item 2017.d, and Scoping Document Item #2a.

Comment [CES67]: Moved to permit application review section.

Comment [AP68]: Definition for "date of filing" added to definitions section.

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proposed changes are within the scope and intent of the original approval, and are consistent with this program and the Act.

C. "Within the scope and intent of the original approval" means all of the following:

1. No additional over-water construction is involved except that a pier, dock, or floating structure may be increased by 500 square feet or 10 percent from the provisions of the original permit, whichever is less over that approved under the original approval;
2. Ground area coverage and/or height may be increased a maximum of 10 percent over that approved under the original approval; ~~provided, that the revised approval does not authorize development to exceed the height, impervious surface, setbacks, or any other requirements of this program except as authorized under a variance granted for the original development;~~
3. The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of the applicable master program except as authorized under a variance granted as the original permit or a part thereof;
- ~~3-4.~~ Additional or revised mitigation and/or landscaping is consistent with any conditions attached to the original approval and with this program;
- ~~4-5.~~ The use authorized pursuant to the original approval is not changed; and
- ~~5-6.~~ The revision will not cause adverse environmental impacts beyond those originally authorized in the approval.

D. ~~Revisions to shoreline permits and statements of exemption may be authorized after the original authorization has expired pursuant to WCC 22.07.080 (Expiration of Shoreline Permits). Revisions made after the expiration of the original approval shall be limited to changes that are meet the definition of a shoreline exemption and are consistent with this program, and that would not require a permit under this program. If the proposed change is a substantial development as defined by this program, then a new permit is required.~~

~~D-E.~~ The provisions of this subsection shall not be used to extend the time requirements or to authorize substantial development beyond the time limits or scope of the original approval; provided the revision approval shall expire within 1 year from the date of approval, tolling of expiration does not apply to revision approvals.

~~E-F.~~ A new permit shall be required if the proposed revision and any previously approved revisions in combination would constitute development beyond the scope and intent of the original approval as set forth in subsection (C) of this section.

G. The revision approval, including the revised site plans and text consistent with the provisions of WAC 173-27-180 as necessary to clearly indicate the authorized changes, and the final ruling on consistency with this section shall be filed with the Department of Ecology pursuant to WCC 22.07.060 (Filing Shoreline Permits with the Department of Ecology). In addition, the County shall notify parties of record of their action.

F. Upon approval of a revision, the decision maker shall file a copy of the revised site plan and a detailed description of the authorized changes to the original permit with the Department of Ecology together with a final ruling and findings supporting the decision based on the requirements of this section. In addition, the decision maker shall notify parties of record of the action.

Comment [RCE69]: Changes made to match WAC 173-27-100

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H. If the proposed revision is to a development for which a shoreline conditional use or shoreline variance was issued, the decision maker shall submit the revision to the Department of Ecology for approval with conditions or denial, and shall indicate that the revision is being submitted under the requirements of this subsection.

I. Under the requirements of WAC 173-27-110(6), the Department shall render and transmit to the decision maker and the applicant/proponent its final decision within 15 days of the date of the Department's receipt of the submittal from the decision maker. The decision maker shall notify parties on record of the Department's final decision.

~~G.A. Appeals of a decision of the Department shall be filed in accordance with the provisions of Chapter 461-08C WAC.~~

22.60.180 Rescission and modification.

A. Any shoreline permit granted pursuant to this program may be rescinded or modified upon a finding by the Hearing Examiner that the permittee or his/her successors in interest have not complied with conditions attached thereto. If the results of a monitoring plan show a development to be out of compliance with specific performance standards, such results may be the basis for findings of noncompliance.

B. The Administrator shall initiate rescission or modification proceedings by issuing written notice of noncompliance to the permittee or his/her successors and notifying parties of record at the original address provided in application review files.

C. The Hearing Examiner shall hold a public hearing no sooner than 15 days following such issuance of notice, unless the applicant/proponent files notice of intent to comply and the Administrator grants a specific schedule for compliance. If compliance is not achieved, the Administrator shall schedule a public hearing before the Hearing Examiner. Upon considering written and oral testimony taken at the hearing, the Hearing Examiner shall make a decision in accordance with the above procedure for shoreline permits.

D. These provisions do not limit the Administrator, the Prosecuting Attorney, the Department of Ecology or the Attorney General from administrative, civil, injunctive, declaratory or other remedies provided by law, or from abatement or other remedies.

22.07.08022.60.190 Expiration of Shoreline Permits.

A. Expiration of shoreline statements of exemptions shall be in accordance with WCC 22.05.140 (Expiration of Project Permits).

A.B. The following time requirements shall apply to all substantial development permits and to any development authorized pursuant to a shoreline variance, or shoreline conditional use permit, ~~or statement of exemption~~:

1. Construction shall be commenced or, where no construction is involved, the use or activity shall be commenced, within two years of the effective date of a shoreline permit ~~or exemption~~ or the permit shall expire; provided, that the Hearing Examiner or ~~Administrator~~ Director, as appropriate, may authorize a single extension for a period of not more than one year based on a showing of good cause if a request for extension has been filed with Planning and Development

Comment [CES70]: Covered under 22.05.150 Permit Revocation

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~~Services with the hearing examiner or administrator as appropriate~~ before the expiration date of the shoreline permit ~~or exemption~~, and ~~The Director shall provide~~ notice of the proposed extension ~~is given~~ to parties of record and the Department of Ecology.

2. Authorization to conduct development activities shall terminate five years after the effective date of a shoreline permit ~~or exemption~~; provided, that the Hearing Examiner or ~~Administrator~~ Director, as appropriate, may authorize a single extension for a period of not more than one year based on a showing of good cause, if a request for extension has been filed with Planning and Development Services with the hearing examiner or administrator, as appropriate, before the expiration date of the shoreline permit ~~or exemption~~ and ~~The Director shall provide~~ notice of the proposed extension ~~is given~~ to parties of record and the Department of Ecology.

3. The effective date of a shoreline permit ~~or exemption~~ shall be the date of filing as provided in RCW 90.58.140(6).

~~—Tolling. The effective date does not include the time during which a development, use, or activity was not actually pursued due to the need to obtain other government permits and approvals for which the issued shoreline permit authorizes, including the pendency of all reasonably related administrative appeals or legal actions on any such permits or approval. Last action required on the shoreline permit or exemption and all other government permits and approvals that authorize the development to proceed, including administrative and legal actions on any such permit or approval.~~

4. The applicant/_proponent shall be responsible for informing the County ~~of the~~ of such pendency, ~~of other permit applications filed with agencies other than the County and of any related administrative and legal actions on any permit or approval.~~

3. ~~If no notice of the pendency of other permits or approvals is given to the County prior to the date of the last action by the County to grant County permits and approvals necessary to authorize the development to proceed, including administrative and legal actions of the county, and actions under other County development regulations, the date of the last action by the County shall be the effective date.~~

~~B.C.~~ Notwithstanding the time limits established in subsections ~~(AB)(1) and (2)~~ of this section, upon a finding of good cause based on the requirements and circumstances of the proposed project and consistent with the policies and provisions of this program and the Act, the Hearing Examiner or ~~Administrator~~ Director, as appropriate, may set different time limits for a particular substantial development permit or exemption as part of the action to approve the permit or exemption. The Hearing Examiner may also set different time limits on specific shoreline conditional use permits or shoreline variances with the approval of the Department of Ecology. The different time limits may be longer or shorter than those established in subsections ~~(A)(1) and (2)~~ of this section but shall be appropriate to the shoreline development or use under review. "Good cause based on the requirements and circumstances of the proposed project" shall mean that the time limits established for the project are reasonably related to the time actually necessary to perform the development on the ground and complete the project that is being permitted, and/or are necessary for the protection of shoreline resources.

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- 1 | ~~G.D.~~ When permit approval includes conditions, such conditions shall be satisfied prior to occupancy
2 | or use of a structure or prior to the commencement of a nonstructural activity; provided, that
3 | different time limits for compliance may be specified in the conditions of approval as appropriate.
4 | ~~E.~~ The Hearing Examiner or ~~Administrator~~ Director, as appropriate, shall notify the Department of
5 | Ecology in writing of any change to the effective date of a permit, ~~authorized by subsections A~~
6 | ~~through C of this section~~, with an explanation of the basis for approval of the change. Any change to
7 | the time limits of a permit other than those authorized ~~by the sections of this program previously~~
8 | ~~listed~~ shall require a new permit application.
9 | ~~D.F.~~ All shoreline permits shall expire 8 years from the date of filing unless a different time period is
10 | granted by the outcome of an administrative appeal or legal action.

Comment [CES71]: Proposed to deal with permits that span multiple versions of the SMP.

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Shoreline Management Program Update Proposed Amendments to WCC Chapter 16.16 Critical Areas Planning Commission Approved Draft with Department of Ecology Required & Recommended Amendments



Planning and Development Services
Whatcom County
10/29/2021

Chapter 16.16 CRITICAL AREAS

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Article 1. Purpose and Intent

16.16.100 Purpose and Intent.

- A. The purposes of this chapter ~~are to help achieve~~~~carry out~~ the goals of the Whatcom County comprehensive plan and the State of Washington Growth Management Act (Chapter [36.70A](#) RCW) and its implementing rules by designating and classifying critical areas, and by protecting the functions and values of critical areas and the ecological processes that sustain them, while allowing for appropriate economically beneficial or productive use of land and property. Critical areas regulated under this chapter include geologically hazardous areas, frequently flooded areas, critical aquifer recharge areas, wetlands, and habitat conservation areas. This chapter seeks to maintain harmonious relationships between human activity and the natural environment.
- B. The Growth Management Act requires the designation of critical areas and the adoption of regulations for the protection of such areas by all counties and cities. The Washington Department of Commerce has adopted minimum guidelines in Chapter [365-190](#) WAC detailing the process involved in establishing a program to protect critical areas. "Protection" in this context means preservation of the functions and values of the natural environment, or to safeguard the public from hazards to health and safety. Critical areas that must be protected include the following areas and ecosystems:
1. Wetlands;
 2. Areas of critical recharging effect on aquifers used for potable water;
 3. Fish and wildlife habitat conservation areas;
 4. Frequently flooded areas; and
 5. Geologically hazardous areas.
- C. By regulating development and minimizing critical area alterations, this chapter seeks to:
1. Reduce harm due to landslides, earthquakes, erosion, volcanic events, flooding, and other natural hazards.
 2. Minimize unnecessary maintenance of public facilities, and costs associated with property damage, emergency rescue relief operations, and environmental degradation.
 3. Protect against adverse impacts to water quality and quantity resources.
 4. Alert appraisers, assessors, real estate agents, owners, potential buyers or lessees, and other members of the public to natural conditions that pose a hazard or otherwise limit development.
 5. Protect wetlands, floodplains, critical aquifer recharge areas, and habitat conservation areas by applying the best available science to ensure no net loss of ecological functions and values.
 6. Protect species listed as threatened or endangered and their habitats.
 7. Protect unique, fragile, and/or valuable elements of the environment, including ground and surface waters, wetlands, anadromous fish species, shellfish, and other fish and wildlife and their habitats.
 8. Provide County officials with information to approve, condition, or deny project proposals.
 9. Protect property rights, while allowing for economic development, including agriculture, and allowing for the development and maintenance of adequate and appropriate public services and essential public facilities.

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10. Prevent adverse and cumulative environmental impacts to critical areas and mitigate unavoidable impacts.
 11. Coordinate Whatcom County's critical areas protection activities and programs with those of other jurisdictions.
 12. Coordinate environmental reviews and permitting of proposals with other departments and agencies to avoid duplication and delay.
 13. Allow for reasonable use of property in accordance with the provisions of WCC [16.16.270](#).
 14. Establish critical areas protection standards and procedures that are consistent with state and federal regulations pertaining to critical areas.
- D. The goals, policies, and purposes set forth in this chapter serve as a basis for exercise of the County's substantive authority under the State Environmental Policy Act (SEPA) and the County's SEPA rules.
- E. The County's enactment or enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.
- F. Nothing in this chapter is intended to preclude or discourage beneficial actions that protect, restore, and/or maintain critical areas or minimize risks associated with critical areas.
- G. Consistent with Whatcom County's high standard of staff conduct, County staff shall observe all applicable County, state, and federal and Washington laws regarding entry onto privately owned property.

Article 2. Administrative Provisions

16.16.200 Authority.

- A. This chapter is adopted under the authority of Chapter [36.70](#) RCW, which empowers a county to enact a critical area ordinance and provide for its administration, enforcement and amendment, and Chapter [36.70A](#) RCW and Article 11 of the Washington State Constitution.
- B. The Director shall administer and enforce the provisions of this chapter and have the responsibility for reviewing development proposals for compliance with this chapter. Additionally, s/he shall also have the:
 - 1. Authority to approve, deny, or condition permits in accordance with the standards set forth herein.
 - 2. Authority to convene an interdisciplinary team to assist in reviewing development proposals or to solicit review from outside experts in accordance with WCC 16.16.220(C) (Interdisciplinary Team).
 - 3. Authority to post a stop work order pursuant to WCC 16.16.285 upon a person undertaking activity within a critical area or buffer in violation of this chapter.
 - 4. Any additional responsibility and/or authority specifically provided for in this chapter.
 - 5. For project permits subject to consolidated review the Director's authority shall transfer to another County decision maker when another decision maker is specified for a separate project permit. In such cases, the Director shall ensure that all procedural requirements of this chapter are met and shall make a recommendation to the designated decision maker as to how the provisions of this chapter apply to the permit action, including project permits.
- C. The Whatcom County Hearing Examiner authority is provided in is hereby vested with responsibility and authority to perform the following duties:
 - 1. Those duties as assigned in WCC Chapter 2.11 (Hearing Examiner).
 - 2. Those duties as assigned in WCC Title 22 (Land Use and Development)
 - 3. To grant or deny variances to the standards of this Chapter pursuant to WCC 16.16.275 (Variances).
 - 4. To grant, condition, or deny reasonable use exception permits for all developments affecting critical areas pursuant to WCC 16.16.270 (Reasonable Use Exceptions).
 - 5. To decide on appeals of administrative decisions issued by the Director.
- D. In granting, revising, or extending a permit, the Director, or Hearing Examiner as applicable, may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other features of the proposed development deemed necessary to assure that the development is consistent with criteria set forth in this chapter. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to allow for future review or reevaluation to assure conformance with this chapter. The Director and/or Hearing Examiner shall render a final decision in accordance with the timelines established in WCC Chapter 22.05, as applicable. All decisions of the Director and Hearing Examiner may be appealed pursuant to WCC 22.05.160.

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Comment [CES1]: Moved from 16.16.240, which has been deleted.

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16.16.205 Authorizations Required.

- A. No action shall be taken by any person, ~~company, agency, governmental body (including Whatcom County), applicant, owner, or owner's agent, which~~ that results in any alteration of a critical area or its setback or buffer without prior authorization by submitting an application ~~to the technical administrator on a form provided by Whatcom County~~ and obtaining either the required permit or an approval of a notice of activity, as specified herein.
- B. No land use ~~development project~~ permit, construction permit, or land division approval required by County ordinance shall be granted until the County decision maker has determined that the applicant has complied with the applicable purposes, requirements, objectives, and goals of this chapter including the mitigation standards set forth in WCC [16.16.260](#).
- C. Project permits shall comply with all provisions of this chapter, WCC Title [22](#) and the department's administrative manual.
- D. The requirements of this chapter shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA) (RCW Chapter [43.21C](#)), as locally adopted (WCC Chapter [16.08](#)). Any conditions required pursuant to this chapter shall be coordinated with the SEPA review and threshold determination.
- E. Areas characterized by a particular critical area may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some critical areas. When one critical area adjoins or overlaps another, the more restrictive standards shall apply.

Comment [CES2]: Definition of person now covers these.

16.16.210 Applicability and Severability.

This chapter shall be consistently applied to any alteration or development within geographical areas of unincorporated Whatcom County that meets the definition and criteria for critical areas and critical area buffers or setbacks as set forth in this chapter. No development shall be constructed, located, extended, modified, converted or altered, or land subdivided without full compliance with this chapter. Should any section or provision of this chapter be declared invalid, such decision shall not affect the validity of this chapter as a whole.

16.16.215 Relationship to Other Jurisdictions.

- A. Permit applicants are responsible for complying with all federal, state, tribal, and local regulations that may pertain to a proposed development. Compliance with the provisions of this chapter does not necessarily constitute compliance with other regulations and permit requirements.
- B. In cases where other agencies have jurisdiction over critical areas and the ~~technical administrator~~ Director determines that the permit conditions imposed by such agencies are no less protective and satisfy the requirements of this chapter, those permit conditions may be substituted as the conditions of approval for the requirements of this chapter. Such agencies may include, but are not limited to, the Lummi Nation; the Nooksack Tribe; the United States Army Corps of Engineers; the United States Environmental Protection Agency; the United States Fish and Wildlife Service; the National Marine Fisheries Service or NOAA Fisheries; and the Washington State Departments of Ecology, Natural Resources, and Fish and Wildlife.
- C. The County shall make detailed written findings required by WCC Chapter [22.05](#) and WCC [16.16.250](#) when adopting conditions of another jurisdiction's permit. Such requirements shall

be a condition of critical area approval and enforceable by the County. In the event that there is a conflict between permit requirements and the standards of this chapter, the more restrictive standards shall apply.

- D. The County shall notify the applicant in writing when adopting other agencies' conditions pursuant to this section.

16.16.220 Identification and mapping of Critical Areas.

- A. **Critical Area Maps.** The County has identified critical areas and areas where the conditions under which critical areas typically occur and/or have the potential to occur. The approximate location and extent of critical areas within the County's jurisdiction are shown on maps; however, this information is for increasing public awareness of critical areas. These "static" maps maybe too inexact for regulatory purposes. These maps which shall be available at the Department of Planning and Development Services department and online for public inspection.

1. Property owners, the ~~technical administrator~~ Director, and/or members of the public may use these maps as a general guide, but the maps do not provide a comprehensive accounting of areas subject to this chapter nor do they provide a definitive critical areas designation. Maps showing known critical areas are only for information or illustrative purposes. Critical area locations and boundaries shown on the County's maps are approximate and do not include buffers that may be associated with critical areas, and some critical areas may not be shown on the maps at all. It is also possible that some maps showing critical areas in certain areas may not be accurate.

2. Planning and Development Services has the authority to update critical areas maps and shall do so as new critical areas are identified and as new information becomes available.

3. The approximate location and extent of frequently flooded areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as new hazard areas are identified and as new information becomes available. This article does not imply that land outside mapped frequently flooded areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Whatcom County, any officer or employee thereof, or the Federal Insurance and Mitigation Administration (FIMA), for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

- B. **Identification.** Field investigation, analysis by a qualified professional, and/or consideration of other sources of credible scientific information may be required to confirm the presence or absence of a critical area and its boundaries and buffers. When County critical area maps, indicators, or other sources of credible information indicate that a site may be located in, contain, or abut critical areas or their buffers or setbacks, the Director shall require technical studies in accordance with the requirements for that critical area specified herein to determine the extent of critical areas on the property.

Comment [CES3]: Moved from 16.16.410

Comment [CES4]: Moved to 16.16.250 (Review Process)

Comment [CES5]: Moved from 16.16.250

C. **Interdisciplinary Team.** The Director may call upon outside expertise including an interdisciplinary team if s/he determines that additional technical assistance is required to assess a critical areas development proposal or ensure the application of best available science.

1. The Director will coordinate this effort and seek advice from the team.
2. The interdisciplinary team shall include the applicant and/or their technical representative, local, state, or federal agency or tribal representatives with expertise in the field, and/or independent qualified professionals with expertise relating to the critical area issue.
3. The functions of the interdisciplinary team are to field check and verify critical area determinations/boundaries and assess species/habitat presence by providing written peer review of the information included with an application, identify areas of concern in the application of best available science, provide professional opinions and recommendations relevant to the provisions of this chapter, and help focus the preparation of subsequent reports and environmental documentation on the most relevant issues.
4. In lieu of convening an interdisciplinary team, the County may require third-party review by a qualified professional for any development proposal, mitigation plan, mitigation bank proposal, or other project for which additional technical expertise is needed. The cost of the third-party review shall be the permit applicant's responsibility.

~~C.A. Planning and Development Services has the authority to update critical areas maps and shall do so as new critical areas are identified and as new information becomes available.~~

16.16.225 ~~Regulated activities~~ General Regulations.

A. The following activities shall be subject to the provisions of this chapter when they occur within critical areas or their buffers or will impair the functions and values of a critical area:

1. Clearing, grading, dumping, excavating, discharging, or filling with any material. This includes creating impervious surfaces.
2. Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure, subject to the provisions for a nonconforming structure pursuant to WCC 16.16.275, Chapter 20.83 WCC, and WCC 23.50.070.
3. Any other activity for which a county permit is required, excluding permits for interior remodeling.

A. General regulations apply to all critical areas and critical area buffers. Specific critical area articles describe standards applied to authorized alterations.

B. Alteration of critical areas and/or buffers is prohibited except when any impacts are mitigated pursuant to this Chapter, and:

1. Alteration is approved pursuant to the reasonable use or variance provisions of WCC 16.16.270 and 16.16.273, respectively; or
2. Alteration is necessary to accommodate an essential public facility or public utility where no feasible alternative location will accommodate the facility and the facility is located, designed, and constructed to minimize and, where possible, avoid critical areas disturbance to the maximum extent feasible; or

Comment [RE6]: Deleted, as it is redundant with 16.16.235(A)

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3. Alteration is necessary to accommodate an approved water-dependent use and ~~any~~ associated development, use, or activity and/or the development activities listed in WCC Title 23.90.130(B)(7)(a) when permitted in accordance with the Whatcom County Shoreline Management Program (SMP); provided, that such development is operated, located, designed and constructed to minimize and, where possible, avoid critical areas disturbance to the maximum extent feasible; or
 4. Alteration is part of an essential element of an activity allowed by this chapter and all feasible measures to avoid and minimize impacts have been employed. Such feasible measures shall include, but not be limited to, clustering where permitted by zoning and as appropriate to protect critical areas. The purposes of clustering shall be to minimize adverse effects of development on critical area functions and values, minimize land clearing, maintain soil stability, preserve native vegetation, provide for wildlife corridors, maintain hydrology, and mitigate risk to life and property; or
 5. ~~Alteration is associated with an exempt activity under WCC 16.16.230, or is allowed pursuant to the notification provisions of WCC 16.16.235, or is allowed pursuant to the specific regulatory standards for each designated critical area, as enumerated in the subsequent articles of this chapter; or~~
 6. ~~Alteration is associated with an alternative mitigation plan or watershed-based management plan approved pursuant to WCC 16.16.261 or 16.16.262, respectively; or~~
 6. Alteration is associated with a conservation farm plan pursuant to Article 8 of this chapter; or
 7. ~~Alteration of Type III or IV wetlands not subject to WCC Title 23 that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area; or~~
 8. ~~Alteration of a shoreline habitat conservation area buffers as allowed by Title 23 (Shoreline Management Program).~~
- C. Development proposals shall seek to maintain ecological connectivity and habitat corridors whenever possible. Restoration of ecological connectivity and habitat corridors shall be considered a priority restoration and mitigation action.
- D. In order to preserve native plant communities within shoreline jurisdiction and/or critical areas and their buffers, associated with marine, river, or lake shorelines and wetlands, mitigation sequencing shall be applied during site planning for uses and activities so that the design and location of the structure or development minimizes native vegetation removal. Development, uses, or activities that require vegetation clearing shall be designed to avoid the following, in order of preference:
1. Native trees;
 2. Other native vegetation;
 3. Nonnative trees; and
 4. Other nonnative vegetation.

16.16.230 ~~Exempt Activities Allowed without Notification.~~

~~The following activities do not require authorization from Whatcom County. However, Exemptions from permit requirements of this chapter shall not be construed deemed to grant authorization for any work~~

Comment [CES7]: Already addressed by (4)

Comment [DOE-Req8]: Required Change – This change is based on conversations with Whatcom County clarifying that this exception does not apply within shoreline jurisdiction.

Comment [CES9]: Policy change: This would allow “alteration of Type III or IV wetlands that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area” when impacts are mitigated. This would allow the alteration of certain wetlands in Urban Growth Areas (UGAs) (in particular, Birch Bay) so as to encourage development of commercially zoned property. Commercial development in Birch Bay has been stifled because so much of the remaining commercially zoned property contains small, isolated wetlands. Yet under the Growth Management Act we’re supposed to encourage development within UGAs so that development doesn’t sprawl to less developed areas of the County.

Comment [CES10]: Policy change: This would allow modification of shoreline buffers pursuant to the new system being proposed in the SMP update.

Comment [AP11]: Added per SMP Scoping Document, Item #8b.

Comment [P/C12]: P/C moved to amend. Passed 7-0

Comment [CES13]: To provide clear guidance on order of preference in what vegetation should be avoided when clearing in shorelines.

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to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction. ~~The following activities as specified are exempt from the requirements of this chapter~~
Activities within the shoreline jurisdiction (WCC 23.20.10) may require a shoreline permit or statement of exemption.

- A. Class I, II, III, and IV special (not Class IV general) forest practices conducted in accordance with the applicable standards of the Washington State Forest Practices rules, WAC Title [222](#), except where the lands have been or are proposed to be converted to a use other than commercial forest product production.
- B. Maintenance of lawfully established vegetation, landscaping, and gardens within a regulated critical area or its buffer, ~~including, but not limited to, cutting, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning and planting of noninvasive ornamental vegetation or indigenous native species (excluding trees)~~ to maintain the general condition and extent of such areas; provided, that native growth protection areas, or other areas protected via conservation easements or similar restrictive covenants are not covered by this exception.
- C. Maintenance activities necessary to implement approved mitigation plans.
- D. Low impact activities, when the activity does not cause adverse impacts, such as hiking, canoeing, viewing, nature study, photography, hunting, fishing, education, or scientific research.
- E. Activities undertaken to comply with a United States Environmental Protection Agency Superfund-related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act ~~(such as the Swift Creek Sediment Management Action Plan)~~, or a Department of Homeland Security order that specifically preempts local regulations in the findings of the order.
- F. Maintenance and/or repair of lawfully established single-family residences and appurtenant features; provided, that the activity does not further alter, impact, or encroach upon critical areas or buffers or further affect their functions. The maintenance activity shall not result in increased risk to life or property.
- G. Fish, wildlife, and/or wetland restoration or enhancement activities not required as project mitigation; provided, that the project is approved by the U.S. Fish and Wildlife Service, the Washington State Department of Ecology, Washington State Department of Fish and Wildlife, or other appropriate local, state, federal, or tribal jurisdiction and/or that meet the criteria of RCW [77.55.181](#)(1) and that are reviewed and approved according to the provisions of RCW [77.55.181](#).

16.16.235 Activities Allowed with Notification.

- A. The activities specified in subsection B of this section are authorized within critical areas and buffers; provided, that:
 1. The applicant provides a written notification to the ~~technical administrator~~ Director on a form provided by the Department. Activities within the shoreline jurisdiction (WCC 23.20.010) may ~~shall~~ require a shoreline permit or statement of exception.
 2. The notification will provide a site plan (in a common scale), photos, and specific information describing the activity and the mitigation to be implemented, if required ~~by the technical~~

Comment [DOE-Req14]: Required Change – This change is required for consistency with minimum procedural requirements for permit review in WAC 173-27. There may be instances where a shoreline permit or statement of exemption are required for developments that may otherwise be exempt outside of shoreline jurisdiction. The required language mimics that included in WCC 16.16.235.1 – Activities Allowed with Notification

Comment [P/C15]: P/C moved to delete. Carries 7-0-0-2

Comment [DOE-Req16]: Required Change – This change clarifies the fact that some actions allowed through this process may not meet the definition of “Development” as defined by the SMP. In such cases, a shoreline permit or statement of exemption would technically not be required. In such instances, any applicable standards of the SMP would still apply but the process outlined within this section could still be utilized. For example, removal of a single hazard tree would not require a development permit or exemption per the SMP, however mitigation would still be required consistent with the SMP, including applicable sections of the CAO.

~~administrator~~, to document that the activity will not result in increased risk to public health, safety, and welfare; that adverse impacts to critical areas are minimized; and that disturbed areas are restored as soon as possible following the activity.

3. Notification shall be submitted ~~to the technical administrator~~ at least 10 full business days prior to initiating work.
4. Upon receipt of the notification, the ~~technical administrator~~ Director shall issue a decision within 10 days unless additional information is required from the applicant or other review processes necessitate additional time. Additionally, the ~~technical administrator~~ Director may provide guidance on best management practices for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and use of chemical applications to be used in the execution of the activities listed in subsection B of this section.
5. Unless otherwise specified, notification shall be valid for one year per activity; provided, that there is no change in the scope of the project including, but not limited to, the location and/or extent of the activity allowed under the notification process.

B. Activities Allowed with Notification.

1. **Emergency construction or activity** necessary for the immediate preservation of the public health, safety, and welfare as determined by the ~~technical administrator~~ Director; provided, that:
 - a. An emergency is an unanticipated and imminent threat to public health, safety, or the environment that requires immediate action within a time period too short to allow full compliance with this chapter.
 - b. Emergency construction does not include development of new permanent protective structures where none previously existed. Where the ~~technical administrator~~ Director determines that new protective structures are the appropriate means to address an emergency situation, the project proponent shall either obtain any permits that would have been required absent an emergency, pursuant to Chapter [90.58](#) RCW, Chapter [173-27](#) WAC, or this chapter, or remove the structure upon abatement of the emergency situation.
 - c. Within the jurisdiction of the Whatcom County Shoreline Management Program (WCC Title [23](#)), all emergency construction shall be consistent with the policies and procedural requirements of WCC Title [23](#) and this chapter.
 - d. The applicant shall make a reasonable attempt to contact the ~~technical administrator~~ Director prior to activity; provided, that when prior notice is not feasible, notification of the action shall be submitted to the ~~technical administrator~~ Director as soon as the emergency is addressed and no later than 14 days following such action.
2. **Maintenance, operation, and/or repair of existing infrastructure improvements**, including dikes and drainage ditches, rights-of-way, trails, roads, fences, and utilities or utility corridors; provided, that the activity does not further alter, impact, or encroach upon critical areas or buffers or further affect their functions. The maintenance or repair activity shall not result in increased risk to life or property. Maintenance or repair shall be allowed pursuant to the provisions set forth in this chapter; provided, that:

- a. The applicant shall submit to the ~~technical administrator~~ Director a written description of the maintenance activity with all of the following general information:
 - i. Type, timing, frequency, and sequence of maintenance activity to be conducted;
 - ii. Type of equipment to be used (hand or mechanical);
 - iii. Manner in which the equipment will be used; and
 - iv. Best management practices to be used.
- b. The applicant's written description shall be valid for up to five years; provided, that there is no significant change in the type or extent of maintenance activity.
- 3. **Utility Installation.** Construction of electrical, telecommunications, cable, water, sewer, and other utility lines and equipment within existing structures, facilities, infrastructure systems, development areas and uses, utility easements, and public and private rights-of-way, provided:
 - a. There is no further intrusion into geologically hazardous areas, frequently flooded areas, wetlands, or fish and wildlife habitat conservation areas or their buffers;
 - b. Soil erosion is controlled;
 - c. Disturbed areas are promptly stabilized; and
 - d. Any adverse impacts to critical areas are mitigated in accordance with this chapter.
- ~~3.4. Select Removal or Pruning of Vegetation Management.~~ No vegetation shall be removed from a wetland, habitat conservation area, coastal or riverine erosion hazard area, or landslide hazard area, or their buffers, unless specifically listed in subsection (a) and meeting the conditions of subsection (b), below subject to the following:
 - a. ~~Exceptions. Vegetation removal or pruning will be done in a manner that minimizes disturbance and prevents adverse effects on soil stability, fish or wildlife habitat, water quality, or water quantity.~~
 - i. ~~Except for lawn, pasture, ornamental vegetation, and similar introduced vegetation, provided all areas of vegetation removal are revegetated no vegetation shall be removed from a wetland, habitat conservation area, coastal or riverine erosion hazard area, or landslide hazard area or their buffers unless otherwise authorized by the technical administrator for safety reasons.~~
 - ii. Restoration projects.
 - iii. Maintenance of legally established views so long as the criteria subsection (B)(6) of this section are met.
 - ~~iv. The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional.~~
 - v. To improve overall slope or bank stability selective vegetation limbing, clearing, and/or thinning may be allowed in landslide hazard areas and/or riverine and coastal erosion hazard areas and/or their buffers pursuant to an approved habitat management plan designed. The plan shall be prepared by a qualified professional and reviewed by a licensed geologist or geotechnical engineer.

Comment [CES17]: Added to address Scoping Document item #12a.

- b. Conditions.
- i. Vegetation removal or pruning will be done in a manner that minimizes disturbance and prevents adverse effects on soil stability, fish or wildlife habitat, water quality, or water quantity. Shrubs shall not be pruned to a height of less than 6 feet.
 - ii. Cut vegetation shall be left within the critical area or buffer where practicable unless removal is warranted due to the presence of an established disease infestation, noxious weeds, environmental or other hazards, or because of access or maintenance needs if the area is a utility or access right-of-way.
 - iii. All limb removal, crown thinning, or pruning shall meet the American National Standard Institute (ANSI) tree pruning standards. Pruning shall retain branches that overhang the water. No tree topping shall occur. In no circumstance shall removal of more than one-fourth (1/4) of the original crown be permitted within a three year period.
 - iv. Hazard Tree Mitigation.
 - (A) The landowner shall replace any trees that are removed at a three to one ratio (3:1). When approved by the Director, a landowner may choose to convert a hazard tree proposed for removal to a wildlife snag as an alternative if recommended by a certified arborist.
 - (B) In addition to the requirements of WCC 20.80.300 through 20.80.380 (Landscaping), replacement trees shall meet the following criteria:
 - (1) Replacement trees shall be exclusively species native to the coastal region of the Pacific Northwest.
 - (2) At a minimum, 50% of replacement trees shall be evergreen species. If only one replacement tree is required, it shall be an evergreen species, unless otherwise approved by the Director.
4. The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional.
5. **View Corridors.** Clearing and/or thinning for limited view corridors shall be allowed. Except in landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, the clearing, pruning, and revegetation of buffer areas for view purposes where it does not adversely impact ecological and/or aesthetic values, and/or slope stability, provided:
- a. The proposed view corridor is not located in a landslide, riverine, or coastal erosion hazard areas hazard areas or their buffers.
 - b. Clearing shall only be allowed when the applicant can demonstrate that a limited view corridor cannot be achieved through limb removal, crown thinning, or pruning. With clearing, a combination such strategies may be required to establish a view shall be required.
 - a-c. A window or view opening is limited to the minimum necessary for view purposes and shall not exceed a cumulative total of 15% percent of buffer length, unless the applicant can demonstrate to the technical administrator's satisfaction that a larger dimension is warranted because of slope or other site considerations. Trees greater than 12 inches in diameter at breast height shall be preserved, but may be shaped, windowed/thinned or

Comment [AP18]: This language is modeled after Tree Replacement Requirements for Lake Whatcom.

Comment [CES19]: New text added per Scoping Document, Item #18a.

- ~~pruned.~~ Whenever possible, view corridors shall be located in areas dominated with non-native vegetation and invasive species.
- ~~b.d.~~ Significant trees greater than 12 inches in diameter at breast height shall be preserved, but may be shaped, windowed/thinned or pruned.
- ~~e.e.~~ Low-growing native vegetation shall be retained and/or planted in the view corridor to provide habitat, stabilize the area, and achieve dense growth.
- ~~d.~~ This activity shall not be conducted more than once every 10 years for any individual residential property.
- ~~e.f.~~ Clearing shall not take place where increased risks or adverse impacts, including cumulative impacts, to critical area functions and values are likely to occur.
- ~~f.g.~~ This provision does not apply to open space set aside in a subdivision or other approval to which specific conditions are attached that prohibit clearing of vegetation without a written approval or permit.
- ~~g.h.~~ View areas established under this section shall be considered lawfully established and may be maintained as provided for in subsection (B)(34) of this section.
6. **Navigation Aids.** The installation of navigation aids and boundary markers in accordance with applicable state and federal laws or the installation of mooring buoys in accordance with the Department of Fish and Wildlife design guidelines and the Whatcom County Shoreline Management Program (WCC Title 23).
7. **Site Investigation.** Routine site investigation work in wetlands, landslide hazard areas, and riverine and coastal erosion hazard areas. This includes geotechnical soil borings, groundwater monitoring wells, percolation tests, sediment sampling, and similar or related activities required for land use application submittals or permit compliance. Land survey and shallow soil test pits dug in conjunction with wetland delineation studies do not require notification.
8. **Household Garden Products.** ~~Fertilizers or household~~ herbicides to address noxious weed infestation may be used in critical area buffers, but not in critical areas. Either must be applied at times and rates specified on the label in accordance with Washington State Department of Agriculture and other applicable regulations.
9. **Ditch Maintenance.** ~~Routine maintenance of ditches on~~ agricultural lands maintenance of ditches is allowed; provided, that all of the following are met:
- The maintenance is necessary to support ongoing agricultural operations;
 - The maintenance activity does not expand the dimensions of the drainage channel beyond the original, lawfully established dimensions;
 - The agricultural activities are conducted pursuant to an approved conservation farm plan prepared pursuant to Article 8 of this chapter;
 - The farm operator obtains a hydraulic project approval (HPA), if required, from the Washington State Department of Fish and Wildlife (WDFW) prior to the maintenance activity; and
 - The farm operator provides a copy of the HPA to the ~~technical administrator~~ Director as part of the written notification.
10. Alteration or removal of beaver-built structures two years old or less; provided, that:

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- a. There is no adverse impact to wetland or river or stream functions.
- b. The property owner obtains an HPA from WDFW (if required) prior to the maintenance activity.
- c. The property owner provides a copy of the HPA to the ~~technical administrator~~ Director as part of the written notification.

16.16.240 Technical administrator and hearing examiner authority.

The technical administrator is the Whatcom County director of planning and development services or his/her designee. The hearing examiner is appointed by the county council. The technical administrator and the county hearing examiner shall administer and enforce the provisions of this chapter pursuant to the following:

- A. The technical administrator shall have the primary responsibility for reviewing development proposals for compliance with this chapter and is authorized to approve, deny, or condition permits in accordance with the standards set forth herein. The technical administrator shall also have the following authority:
 1. Authority to convene an interdisciplinary team to assist in reviewing development proposals or to solicit review from outside experts in accordance with ~~WCC 16.16.245~~.
 2. Authority to grant, condition, or deny reasonable use permits for single family residential building permits within critical areas and/or their buffers.
 3. Authority to grant, condition, or deny reasonable use permits for other development proposals that would affect critical area buffers, but not the critical areas themselves.
 4. Authority to serve a cease and desist order pursuant to ~~WCC 16.16.285~~ upon a person undertaking activity within a critical area or buffer in violation of this chapter.
 5. Any additional responsibility and/or authority specifically provided for in the subsequent articles of this chapter.
- B. The technical administrator's authority shall transfer to another county decision maker when another decision maker is specified for a separate project permit. In such cases, the technical administrator shall ensure that all procedural requirements of this chapter are met and shall make a recommendation to the designated decision maker as to how the provisions of this chapter apply to the permit action, including project permits.
- C. The Whatcom County hearing examiner is hereby vested with responsibility and authority to hear appeals and perform the following duties:
 1. Authority to grant or deny variances.
 2. Authority to grant, condition, or deny reasonable use permits for all developments, except single family building permits, affecting critical areas.
 3. Authority to decide on appeals of administrative decisions including, but not limited to, reasonable use permits issued by the technical administrator.
 4. Authority to hold public hearings pursuant to Chapter 22.05 WCC.
- D.A. In granting, revising, or extending a permit, the technical administrator, or hearing examiner as applicable, may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other features of the proposed development deemed necessary to assure that the

Comment [RE20]: Moved to 16.16.200 (Authority)

development is consistent with criteria set forth in this chapter. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to allow for future review or reevaluation to assure conformance with this chapter. The technical administrator and/or hearing examiner shall render a final decision in accordance with the timelines established in Chapter 22.05 WCC, as applicable. All decisions of the technical administrator and hearing examiner may be appealed pursuant to WCC 22.05.160.

16.16.245 Interdisciplinary team.

The technical administrator may call upon outside expertise including an interdisciplinary team if the technical administrator determines that additional technical assistance is required to assess a critical areas development proposal or ensure the application of best available science.

- A. The interdisciplinary team shall include the applicant and/or their technical representative, local, state, or federal agency or tribal representatives with expertise in the field, and/or independent qualified professionals with expertise relating to the critical area issue.
- B. The functions of the interdisciplinary team are to field check and verify critical area determinations/boundaries and assess species/habitat presence by providing written peer review of the information included with an application, identify areas of concern in the application of best available science, provide professional opinions and recommendations relevant to the provisions of this chapter, and help focus the preparation of subsequent reports and environmental documentation on the most relevant issues.
- C. The technical administrator will coordinate this effort and seek advice from the team.
- D. In lieu of convening an interdisciplinary team, the county may require third party review by a qualified professional for any development proposal, mitigation plan, mitigation bank proposal, or other project for which additional technical expertise is needed. The cost of the third party review shall be the permit applicant's responsibility.

Comment [RE21]: Moved to 16.16.220(C) (Interdisciplinary Team)

16.16.250 Submittal requirements and Critical Areas Review Process.

- A. All applicants shall complete a prescreening meeting with the ~~technical administrator~~ Director prior to submitting an application subject to this chapter. The purpose of this meeting shall be to discuss the requirements for a complete application; the critical area standards and procedures; to review conceptual site plans prepared by the applicant; to discuss appropriate investigative techniques and methods; and to determine reporting requirements.
- B. Review and approval of a proposed development within a critical area or its buffer may be initiated through the application for any project permit in Whatcom County on department-approved forms and containing the materials listed in the department's Administrative Manual.

~~When County critical area maps, indicators, or other sources of credible information indicate that a site may be located in, contain, or abut critical areas or their buffers or setbacks, the shall require technical studies in accordance with the requirements for that critical area specified herein.~~

Comment [CES22]: Moved to 16.16.220

- C. The technical administrator ~~Director~~ shall be responsible, in a timely manner, to make one of the following determinations regarding critical areas review:
 - 1. Initial Determination. ~~When county critical area maps or other sources of credible information indicate that a site may be located, contain or abut critical areas, critical area buffers or setbacks~~

~~the technical administrator shall require technical studies in accordance with that critical area's specific article.~~

2.1. Determination of Impacts. The ~~technical administrator~~ Director shall use best available science, including but not limited to the County's critical areas maps, his/her field investigation results, his/her own knowledge of the site, information from appropriate resource agencies, or documentation from a scientific or other credible source to determine if the project will more probably than not adversely impact a critical area or its buffer. Identified adverse impacts shall be fully mitigated in accordance with WCC 16.16.260.

3.2. Determination of Compliance. If the applicant demonstrates to the satisfaction of the ~~technical administrator~~ Director that the project meets the provisions of this chapter and is not likely to adversely affect the functions and values of critical areas or buffers or provides mitigation to reduce the adverse impact to meet no net loss of the function and values of critical areas or buffers, the ~~technical administrator~~ Director shall make the determination that the proposal complies with this chapter.

4.3. Decision to Approve, Condition, or Deny. The ~~technical administrator~~ Director shall review all pertinent information pertaining to the proposed development and shall approve, approve with conditions, or deny the permit based on their review, and shall provide a detailed written decision. This determination shall be included in the project review record for the project permit in accordance with WCC Chapter 22.05.

D. The ~~technical administrator~~ Director may waive the requirement for critical areas review under this chapter when s/he determines that all of the following conditions are met:

1. The proposed development activity is located on a parcel that received approval of a previous critical areas review within the prior five years, site conditions have not changed, and the applicable regulations have not substantively changed;
2. All critical areas within 300 feet of the new proposed development, use, or activity on the parcel have been identified and delineated and the effects of the pro-posed development activity have been thoroughly considered in accordance with the most current regulations and best available science;
3. The activity is in compliance with all permit conditions including mitigating measures, as applicable, that were imposed as part of the prior review and there are no outstanding violations of conditions that were imposed as part of the previous review;
4. The development activity involves a use that is equally or less intensive than the development activity that was subject to the prior permit. Land use intensity shall be based on factors including development density, critical areas impacts, impervious surface, noise, glare, dust, hours of operation, and traffic.

E. ~~Submittal Materials.~~

1. ~~Complete application.~~
2. ~~A detailed site map drawn to a common scale, or survey, showing at least the following:~~
 - a. ~~Vicinity map.~~
 - b. ~~Topographic, hydrologic, and vegetative features.~~

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- e. ~~The location and description of known wildlife and habitat features and all known critical areas.~~
- d. ~~Proposed development activity with dimensions.~~
- 3. ~~Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc. Structures shall be dimensioned.~~
- F. ~~Elements of a critical area assessment are encouraged to be submitted together for timely review. However, the technical administrator may allow the various components to be submitted independently at different phases of a project if s/he determines piecemeal review will benefit the review process or at the request of the applicant.~~

Comment [CES23]: Deleted because we're moving away from the code listing everything needed in an application and just referring PDS's admin manual, which is referenced in subsection (B) now.

Comment [CES24]: Moved to 16.16.255

16.16.255 Critical Areas Assessment Reports.

- A. When the ~~technical administrator~~ Director determines a need for a critical area assessment pursuant to WCC 16.16.250, s/he shall have the authority to require a critical areas assessment report, to be prepared by a qualified professional and be consistent with best available science. The analysis shall be commensurate with the value or sensitivity of a particular critical area and relative to the scale and potential impacts of the proposed activity. A critical area assessment shall have all of the following elements, unless determined by the ~~technical administrator~~ Director not to be needed:
 - 1. The requirements found in subsections ~~B-(C)~~ and ~~H-(I)~~ of this section;
 - 2. Geological hazard assessment;
 - 3. Critical aquifer recharge assessment;
 - 4. Frequently flooded area assessment;
 - 5. Wetland assessment;
 - 6. Fish and wildlife habitat conservation area assessment;
 - 7. A mitigation plan addressing all mitigation requirements of this title.
 - 8. Habitat Management Plan, when required by this chapter or Title 23.
- B. Elements of a critical area assessment are encouraged to be submitted together for timely review. However, at the request of the applicant the Director may allow the various components to be submitted independently at different phases of a project if s/he determines piecemeal review is reasonable and will benefit the review process.
- ~~B-C.~~ The critical areas assessment report shall:
 - 1. Demonstrate that the submitted proposal is consistent with the purposes and specific standards of this chapter;
 - 2. Describe all relevant aspects of the development proposal and critical areas adversely affected by the proposal including any geological hazards and risks associated with the proposal, and assess impacts on the critical area from activities and uses proposed; and
 - 3. Identify impacts of the proposed use/development on habitat corridors, ecological connectivity, and habitat for salmon and forage fish as identified in WCC 16.16.710.
 - ~~3-4.~~ Where impacts are unavoidable, demonstrate through an alternatives analysis that no other feasible alternative exists. Such an analysis shall explore alternatives that might pose fewer impacts or better protect ecological functions, and address such issues as project design,

Comment [CES25]: Moved from 16.16.250

Comment [CES26]: Added per SMP Scoping Document, Items #8b and 8c.

Comment [P/C27]: P/C moved to approve. Passed 7-0

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location on the property, and type and location of mitigation, as applicable to the proposed development.

- 4.5. ~~Identify and evaluate the cumulative impacts of individual development proposals to assure that no net loss standards are achieved. Consider the cumulative impacts of the proposed action that includes past, present, and reasonably foreseeable future actions to facilitate the goal of no net loss of critical areas.~~ Such impacts shall include those to wildlife, habitat, and migration corridors; water quality and quantity; and other watershed processes that relate to critical area condition, process, and/or service.

- 5.6. Identify proposed mitigation and protective measures as required by this chapter.

~~C.D.~~ The ~~technical administrator~~ Director shall review the critical areas assessment report for completeness and accuracy and shall consider the recommendations and conclusions of the critical areas assessment report to assist in making administrative decisions concerning approval, conditional approval, or denial of the subject project and to resolve issues concerning critical areas jurisdiction and appropriate mitigation and protective measures.

~~E.~~ The Director shall reject or request revision of the field and literature findings and conclusions reached in a critical areas assessment report when s/he can demonstrate that the assessment is inaccurate, incomplete, or does not fully address the critical areas impacts involved.

~~D.F.~~ Critical areas assessment reports shall generally be valid for a period of five years from the date the assessment is approved by the ~~technical administrator~~ Director. Future land use applications may re-quire preparation of new or supplemental critical area assessment reports unless it can be demonstrated to the satisfaction of the ~~technical administrator~~ Director that the previously prepared report is ad-equate for current analysis. The ~~technical administrator~~ Director may also require the preparation of a new critical area assessment report or a supplemental report when new information is found demonstrating that the initial assessment is in error. If the ~~technical administrator~~ Director requires more information in the report, s/he shall make the request in writing to the applicant stating what additional information is needed and why.

~~F.A.~~ The technical administrator shall reject or request revision of the field and literature findings and conclusions reached in a critical areas assessment report when s/he can demonstrate that the assessment is inaccurate, incomplete, or does not fully address the critical areas impacts involved.

~~F.G.~~ To avoid duplication, the reporting requirements of this chapter shall be coordinated if more than one critical area assessment report is required for a site or development proposal. Similarly, where other agencies' assessments or reports are required pursuant to other state or federal laws, the applicant is encouraged to submit one report that satisfies all such agencies' requirements.

~~G.H.~~ In addition to a hard copy, applicants shall provide reports and maps to the County in an electronic format that allows site data to be incorporated into the County critical areas database; however, the County may waive the electronic format requirement for single-family building permits. Applicants shall follow Whatcom County electronic submittal guidelines. This requirement shall not be construed as a requirement to use specific computer software, though it must be in a format usable by the County.

~~H.I.~~ The intent of these provisions is to require a reasonable level of technical study and alternatives analysis pursuant to WCC [16.16.250](#) sufficient to assess potential project impacts and to protect

Comment [CES28]: Moved from 23.90.030
30.010 Ecological Protection

critical areas. At a minimum, a critical areas assessment report shall include the following information:

1. A site plan showing the proposed development footprint and clearing limits, all relevant critical areas and buffers within and abutting the site, a written description of the project, an examination of project on-site design alternatives, and an explanation of why the proposed activity requires a location on, or access across, a critical area and why alternatives are not feasible;
2. A written description of the critical areas and buffers on or in the vicinity of the site, including their size, type, classification or rating, condition, disturbance history, and functions and values. Projects in frequently flooded areas must comply with the reporting requirements of WCC Title 17. Projects on or adjacent to geologically hazardous areas shall identify the type of hazard and assess the associated risks posed by the development or that the development may be subject to;
3. An analysis of potential adverse critical area impacts associated with the proposed activity including, but not limited to, effects related to clearing, grading, noise, light/glare, drilling, damming, draining, creating impervious surface, managing stormwater, releasing hazardous materials, and other alterations, and including an explanation of critical area processes and functions that may be affected;
4. An analysis of how critical area impacts or risks will be avoided and/or minimized, and/or an analysis of the proposed measures to prevent or minimize hazards. When impacts cannot be avoided, the report shall include a plan describing mitigation that will be provided to replace critical area functions and values altered as a result of the proposal. The mitigation plan shall be consistent with the provisions of WCC 16.16.260 and provide written documentation showing what the applicant considered for each step in the mitigation sequencing and the other applicable articles of this chapter;
5. The dates, names, signatures, and qualifications of the persons preparing the report and documentation of analysis methods including any fieldwork performed on the site; and
6. Additional reasonable information requested by the ~~technical administrator~~ Director for the assessment of critical areas impacts or otherwise required by the subsequent articles of this chapter.

16.16.260 General Mitigation Requirements.

- A. ~~Developments permitted pursuant to this chapter that adversely impacts or alters a critical area or buffer shall include mitigation sufficient to minimize risks associated with geologic hazards and/or maintain or replace or improve critical areas functions and values. Any proposed development that cannot adequately mitigate critical area impacts as determined by the technical administrator~~ Director shall be denied.
- B. In determining the extent and type of mitigation required, the Director may consider all of the following:
 1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;

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2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;
 3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;
 4. The likely success of the proposed mitigation measures;
 5. Effects of the mitigation actions on neighboring properties; and
 6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.
- C. Though in general on-site mitigation is preferred, the County shall not risk mitigation success or bypass opportunities for improving ecological processes in a watershed by precluding other mitigation options when it is more effective and sustainable. In order to provide the greatest ecological benefit, a combination of mitigation options may be used to achieve no net loss of ecological functions. In some cases it may be necessary to mitigate at multiple sites or on-site and out-of-kind. In determining the extent and type of mitigation required for impacts to critical areas, the Director may consider all of the following when applicable:
1. On-site and in-kind. Unless otherwise approved by the Director, all critical areas impacts shall be compensated by creation or restoration of replacement areas that are in-kind, on-site, and of similar critical area category.
 2. Off-site and in-kind. The Director may consider and approve off-site mitigation when the applicant demonstrates that greater biological and/or hydrological functions and values will be achieved. The mitigation may include restoration, creation, or enhancement of critical areas and/or their buffers. The process to determine the ratios of on-site mitigation shall apply to off-site ratios as well.
 3. On-site and out-of-kind. The Director may consider and approve out-of-kind mitigation when the applicant demonstrates an ecological uplift of biological and/or hydrological functions and values will be achieved. The mitigation may include restoration, creation, or enhancement of other types of critical areas and/or their buffers. The process to determine the ratios of out-of-kind mitigation shall be based on a habitat management plan with a functional replacement assessment.
 4. Alternative Mitigation Plans pursuant to 16.16.261 (Alternative Mitigation Plans)
 5. Use of Mitigation Bank Credits, pursuant to 16.16.263 (Mitigation Banking)
- D. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas critical areas or their buffers. In all other cases, mitigation shall be completed concurrently with development as quickly as possible following disturbance and prior to use or occupancy of the activity or development.
- E. Construction of mitigation projects shall be timed to reduce impacts; provided, that the Director may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).

Comment [CES29]: Was repeated in several articles; moved to general mitigation regs.

Comment [CES30]: Policy change. This would allow off-site mitigation when it's better for the environment and assists w/ developing an offsite buffer mitigation program.

Comment [CES31]: Moved from 16.16.760

A-F. Mitigation Sequence.

1. When an alteration or impact to a critical area or buffer is proposed, the applicant shall conduct an alternatives/mitigation sequencing analysis and demonstrate that all reasonable efforts have been taken to mitigate adverse impacts in the following prioritized order:
 - a. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or moving the action.
 - b. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts.
 - c. Rectifying the adverse impact by repairing, rehabilitating, or restoring the affected environment.
 - d. Reducing or eliminating the adverse impact over time by preservation and maintenance operations during the life of the action.
 - e. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments and monitoring the adverse impact and the mitigation project and taking appropriate corrective measures.
2. Mitigation shall be provided for all unavoidable adverse alterations of a critical area or buffer. Mitigation for individual projects may include a sequenced combination of the above measures as needed to achieve the most effective protection, compensation for buffer functions and values, or mitigation for critical area functions and values.

B-G. Mitigation Plan.

1. A mitigation plan shall be developed in accordance with an approved critical areas assessment report and be consistent with best available science. Where appropriate, the mitigation plan should be compatible with watershed and recovery planning goals for Whatcom County. The intent of these provisions is to require a level of technical study and analysis sufficient to protect critical areas and/or protect developments and occupants from critical areas involving hazards. The analysis shall be commensurate with the value or sensitivity of a particular critical area and relative to the scale and potential impacts of the proposed activity.
2. The mitigation plan shall provide for construction, maintenance, monitoring, and contingencies as required by conditions of approval and consistent with the requirements of this chapter.
3. The mitigation plan shall demonstrate that all reasonable efforts have been taken to provide sufficient mitigation such that the activity does not have significant adverse impacts and results in no net loss of shoreline and critical area ecological functions.
- 3-4. The mitigation plan shall be prepared by a qualified professional; provided, that the technical administrator Director may waive the requirement to hire a qualified professional to prepare a mitigation plan when the required mitigation involves standard planting or enhancement practices. The waiver shall not be granted for mitigation practices involving wetland creation, rehabilitation, and/or restoration.
- 4-5. The mitigation plan shall contain the following information:
 - i. A description and scaled drawings of the activities proposed to reduce risks associated with geologic hazards and/or flooding, and/or to mitigate for impacts to critical area

Comment [CES32]: Moved from 23.90.030/30.010 Ecological Protection

functions and values. This shall include all clearing, grading/ excavation, drainage alterations, planting, invasive weed management, installation of habitat structures, construction sequencing, best management practices, site protection, irrigation, and other site treatments associated with the development activities.

- ii. Specific information on construction or the proposed mitigation activity including timing, sequence, equipment needs, best management practices, and responsible parties.
- iii. A description of the functions and values that the proposed mitigation area(s) shall provide, and/or a description of the level of hazard mitigation provided.
- iv. The goals, objectives, and performance standards that the proposed mitigation action(s) shall achieve or demonstrate consistency with.
- v. A description of how the mitigation area(s) will be evaluated and monitored to determine if the performance standards are being met.
- vi. A program and schedule for construction and post-construction performance monitoring of the mitigation project.
- vii. An evaluation of potential adverse impacts on adjacent property owners resulting from the proposed mitigation and measures to address such impacts. Mitigation projects shall not result in adverse impacts to adjacent property owners.
- viii. Identification of potential courses of action or contingencies, and any corrective measures to be taken if monitoring or evaluation indicates that project performance standards are not being met.
- ix. Plan sheets with scale identified, showing the edge of the critical area and buffer area. The affected critical area and buffer shall be clearly staked, flagged, and/or fenced prior to and during any site clearing and construction to ensure protection for the critical area and buffer during construction.
- x. A description of other permits and approvals being sought, including the need for permits from state and/or federal agencies.
- xi. Additional information as required by the subsequent articles of this chapter.

C.H. Mitigation Monitoring and Maintenance.

1. All mitigation areas shall be maintained and managed to prevent degradation and ensure protection of critical area functions and values subject to field verification by the Director.

2. The ~~technical administrator~~ Director shall have the authority to require that compensatory mitigation projects be monitored annually for at least five years to establish that performance standards have been met. Required monitoring reports shall be submitted to the County annually during the monitoring period to document milestones, successes, problems, and contingency actions of the compensatory mitigation.

- i. At year three, if the mitigation is meeting year 5 performance standards, the technical administrator ~~Director~~ may reduce the monitoring timeframe to three years for minor mitigation projects involving critical area or buffer revegetation or vegetation enhancement, but not for projects involving wetland creation, wetland restoration, stream restoration or other activities that require manipulation of soils or water. All mitigation areas shall be

Comment [CES33]: Moved from below.

~~maintained and managed to prevent degradation and ensure protection of critical area functions and values subject to field verification by the technical administrator.~~

Comment [CES34]: Moved to (1)

- ii. The ~~technical administrator~~ Director shall have the authority to extend the monitoring period, require corrective measures, and/or require additional monitoring reports beyond the initial monitoring period for any project that does not meet the performance standards identified in the mitigation plan, or does not provide adequate replacement for the functions and values of the impacted critical area.

~~2.3.~~ Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC [16.16.265](#).

~~D.I.~~ Mitigation Assurance.

1. The applicant and his/her representatives shall demonstrate sufficient scientific expertise and capability to implement the mitigation, monitor the site, and make corrections if the project fails to meet projected goals. The ~~technical administrator~~ Director may require the following to ensure that the mitigation is fully functional:
 - i. The applicant shall post a mitigation surety in the amount of ~~125% percent~~ of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical area that are at risk, whichever is greater. The surety shall be based on an itemized cost estimate of the mitigation activity including clearing and grading, plant materials, plant installation, irrigation, weed management, monitoring, and other costs.
 - ii. The surety shall be in the form of an assignment of funds or other means approved by the ~~technical administrator~~ Director.
 - iii. Surety authorized by this section shall remain in effect until the ~~technical administrator~~ Director determines, in writing, that the standards bonded for have been met. Surety shall generally be held by the County for a period of five years to ensure that the required mitigation has been fully implemented and demonstrated to function, and may be held for longer periods when necessary. Surety for construction may be reduced after initial completion in an amount not to exceed the cost of monitoring plus not less than ~~25% percent~~ of the construction cost.
 - iv. Depletion, failure, or collection of surety funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, or monitoring.
 - v. Public development proposals shall be relieved from having to comply with the bonding requirements of this section if public funds have previously been committed for mitigation, maintenance, or monitoring.
 - vi. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within 30 days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default subject to the provisions of WCC [16.16.285](#), and the County may demand payment of any financial guarantees or require other action authorized by the County code or any other law.

- vii. Any funds recovered pursuant to this section shall be used to complete the required mitigation or equivalent.

E.J. Permanent Protection. All mitigation areas shall be protected and managed to prevent degradation and ensure protection of critical area functions and values in perpetuity. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC [16.16.265](#). If additional development is proposed that impacts a mitigation area and those impacts are accounted for under a new, approved mitigation plan, such protection may be removed so long as the final plan meets the requirements of this chapter for all cumulative impacts.

16.16.261 Alternative ~~or innovative~~ Mitigation Plans.

- A. The County shall consider and may approve alternative ~~or innovative~~ mitigation plans for major developments (as defined in Article 9 of this chapter), planned unit developments (pursuant to WCC Chapter [20.85](#)), and/or development agreements (pursuant to RCW [36.70B.170](#) through [36.70B.210](#)).
- B. If approved, said plan shall be used to satisfy the requirements of this chapter and provide relief and/or deviation as appropriate from the specific standards and requirements thereof; provided, that the standards of impact avoidance and minimization shall remain as guiding principles in the application of these provisions and when it is demonstrated that all of the following circumstances exist:
 - 1. The proponent(s) demonstrate the organizational and fiscal capability to carry out the purpose and intent of the plan;
 - 2. The proponent(s) demonstrate that long-term management, maintenance, and monitoring will be adequately funded and effectively implemented;
 - 3. There is a clear likelihood for success of the proposed plan based on supporting scientific information or demonstrated experience in implementing similar plans;
 - 4. In terms of functional value, the proposed mitigation plan results in equal or greater protection and conservation of critical areas functions, services, and values than would be achieved using parcel-by-parcel regulations and/or traditional mitigation approaches;
 - 5. The plan is consistent with the general purpose and intent of this chapter, the Shoreline Management Program (WCC Title [23](#)), and the comprehensive plan;
 - 6. The plan shall contain relevant management strategies considered effective and within the scope of this chapter and shall document when, where, and how such strategies substitute for compliance with the specific standards herein; and
 - 7. The plan shall contain clear and measurable standards for achieving compliance with the purposes of this chapter, a description of how such standards will be monitored and measured over the life of the plan, and a fully funded contingency plan if any element of the plan does not meet standards for compliance.
- C. Alternative mitigation plans shall be reviewed concurrently with the underlying land use permit(s) and decisions to approve or deny such plans shall be made in accordance with the underlying permit process. The plan shall be reviewed by the ~~technical administrator~~ Director to ensure compliance with the general purpose and intent of this chapter and to ensure accuracy

of the data and effectiveness of proposed management strategies. In making this determination the ~~technical administrator~~ Director shall consult with the State Departments of Fish and Wildlife, Ecology, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts. If the ~~technical administrator~~ Director finds the plan to be complete, accurate, and consistent with the purposes and intent of this chapter, the designated decision maker shall solicit comment pursuant to the public notice provisions of WCC Chapter [22.05](#) prior to final approval/denial of permission of the plan to substitute for the requirements and standards of this chapter.

16.16.262 Watershed-Based Management Plans.

- A. The County may consider watershed-based management plans sponsored by watershed improvement districts, other special purpose districts, or other government agencies.
- B. If approved, said plan shall be used to satisfy the requirements of this chapter and provide relief and/or deviation as appropriate from the specific standards and requirements thereof; provided, that the standards of impact avoidance and minimization shall remain as guiding principles in the application of these provisions and when it is demonstrated that all of the following circumstances exist:
 - 1. The proponent(s) demonstrate the organizational and fiscal capability to carry out the purpose and intent of the plan;
 - 2. The proponent(s) demonstrate that long-term management, maintenance, and monitoring of the watershed will be adequately funded and effectively implemented;
 - 3. There is a clear likelihood for success of the proposed plan based on supporting scientific information or demonstrated experience in implementing similar plans;
 - 4. In terms of functional value, the proposed mitigation plan results in equal or greater restoration, protection, and conservation of the impacted critical areas than would be achieved using parcel-by-parcel regulations and/or traditional mitigation approaches;
 - 5. The plan is consistent with the general purpose and intent of this chapter, the comprehensive plan, and an approved watershed plan prepared pursuant to Chapter [90.82](#) RCW (the State Watershed Management Act) or the plan is prepared under other local or state authority that is consistent with the goals and policies of an applicable and approved watershed plan prepared pursuant to Chapter [90.82](#) RCW;
 - 6. The plan shall contain relevant management strategies considered effective and within the scope of this chapter and shall document when, where, and how such strategies substitute for compliance with the specific standards herein; and
 - 7. The plan shall contain clear and measurable standards for achieving compliance with the purposes of this chapter, a description of how such standards will be monitored and measured over the life of the plan, and a fully funded contingency plan if any element of the plan does not meet standards for compliance.
- C. Watershed-based management plans shall be approved by the County Council by ordinance and appended to this chapter. The process for approval shall be as follows:
 - 1. The plan shall be reviewed by the ~~technical administrator~~ Director to ensure compliance with the purposes of this chapter, the Whatcom County Shoreline Management Program (WCC

Title [23](#)), and with the comprehensive plan, and to ensure accuracy of the data and effectiveness of proposed management strategies. In making this determination the ~~technical administrator~~ Director shall consult with the State Departments of Fish and Wildlife, Ecology, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts.

2. If the ~~technical administrator~~ Director finds the plan to be complete, accurate, and consistent with the purposes and intent of this chapter, the designated decision maker shall solicit comments pursuant to the public notice provisions of WCC Chapter [22.05](#) prior to final approval/denial of permission of the plan to substitute for the requirements and standards of this chapter.
3. The designated decision maker shall not approve watershed-based management plans that conflict with Chapter [90.82](#) RCW.

16.16.263 Mitigation Banksing.

A. **Mitigation Bank Credits.** The County may approve ~~the use of~~ mitigation banking credits as a form of compensatory mitigation for wetland and habitat conservation area impacts when the provisions of this chapter require mitigation and when it is clearly demonstrated that the use of a bank will provide equivalent or greater replacement of critical area functions and values when compared to on-site mitigation; provided, that all of the following criteria are met:

1. Banks shall only be used when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when they are consistent with the County comprehensive plan and create a viable alternative to the piecemeal mitigation for individual project impacts to achieve ecosystem-based conservation goals.
2. The bank shall be established in accordance with the Washington State Draft Mitigation Banking Rule, Chapter [173-700](#) WAC or as revised, and Chapter [90.84](#) RCW and the federal mitigation banking guidelines as outlined in the Federal Register, Volume 60, No. 228, November 28, 1995. These guidelines establish the procedural and technical criteria that banks must meet to obtain state and federal certification.
3. Preference shall be given to mitigation banks that implement restoration actions that have been identified formally by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter [90.82](#) RCW, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.

B. **Establishing a Mitigation Banks.** ~~Establishing a mitigation bank~~ shall require a major project permit in accordance with WCC Chapter [20.88](#) and shall be subject to a formal review process including public review as follows:

1. The bank sponsor shall submit a bank prospectus for County review. The prospectus shall identify the conceptual plan for the mitigation bank, including:
 - i. The ecological goals and objectives of the bank;
 - ii. The rationale for site selection, including a site map and legal description of the prospective bank site;

- iii. A narrative demonstrating compliance with the Whatcom County comprehensive plan, associated development standards and this chapter, shoreline restoration plan, watershed planning documents prepared and adopted pursuant to Chapter [90.82](#) RCW, and/or the salmonid recovery plan;
 - iv. A description of the existing site conditions and expected changes in site conditions as a result of the banking activity, including changes on neighboring lands;
 - v. A conceptual site design;
 - vi. A description of the proposed protective mechanism such as a conservation easement; and
 - vii. Demonstration of adequate financial resources to plan, implement, maintain, and administer the project.
2. The ~~technical administrator~~ Director shall review the bank prospectus either by participating in the state's Mitigation Bank Review Team (MBRT) process and/or by hiring independent, third-party expertise to assist in the review.
3. If the ~~technical administrator~~ Director determines that the bank prospectus is complete, technically accurate, and consistent with the purpose and intent of this chapter, s/he shall forward the prospectus to the County Council for initial review. If the proposed bank involves conversion of agricultural land to nonagricultural uses, the County Council shall seek a recommendation from the agricultural advisory committee as to whether the conversion should be allowed. The committee's recommendation shall be nonbinding. The County Council may require mitigation for the loss of agricultural lands.
4. If the County Council determines, based on the initial review, that the prospectus is valid, it shall issue a notice to proceed to the bank sponsor. Following receipt of the notice to proceed, the bank sponsor may submit application for a major project permit in accordance with WCC Chapter [20.88](#) . The notice to proceed shall not be construed as final approval of the bank proposal, but shall indicate approval to proceed with the development of the mitigation bank instrument, which details all of the legal requirements for the bank.
5. Upon receipt of a draft mitigation banking instrument from the bank sponsor and major project permit application, the ~~technical administrator~~ Director shall review the banking instrument and major project permit in consultation with the MBRT and/or other third-party expert. Following review of the mitigation banking instrument and major project permit, the ~~technical administrator~~ Director shall make a recommendation to certify and approve, conditionally certify and approve, or deny the bank proposal and major project permit in accordance with the provisions of WCC Chapters [20.88](#) and [22.05](#) .
6. Following receipt of the recommendation, the County Council shall proceed with review in accordance with the provisions outlined in WCC Chapters [20.88](#) and [22.05](#) .
7. The bank sponsor shall be responsible for the cost of any third-party review.
- C. **Award of Bank Credits.** The award of bank credits for an approved bank may be negotiated based on habitat acreage, habitat quality, and contribution to a regional conservation strategy that has been approved by the County and other appropriate regulatory agency(ies). Credit availability may vary in accordance with agreed-upon performance criteria for the development of the resource

value in question. Awarded bank credits, subject to the approval of the County and regulatory agency(ies), may be made transferable. Whether out-of-kind mitigation credit will be allowed at a particular bank will require a fact-specific inquiry on a case-by-case basis for the project creating the impacts.

D. Use of Bank Credits.

1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
 - a. The bank is certified under state rules;
 - b. The administrator determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument.
2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the certified bank instrument.
3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the certified bank instrument. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

16.16.264 In-Lieu Fees.

To aid in the implementation of off-site mitigation, the County may develop an in-lieu-fee program. This program shall be developed and approved through a public process and be consistent with federal rules, state policy on in-lieu-fee mitigation, and state water quality regulations. An approved in-lieu-fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu-fee program sponsor, a governmental or nonprofit natural resource management entity. Credits from an approved in-lieu-fee program may be used when subsections A through F of this section apply:

- A. The approval authority determines that it would provide environmentally appropriate compensation for the proposed impacts.
- B. The mitigation will occur on a site identified using the site selection and prioritization process in the approved in-lieu-fee program instrument.
- C. The proposed use of credits is consistent with the terms and conditions of the approved in-lieu-fee program instrument.
- D. Land acquisition and initial physical and biological improvements of the mitigation site must be completed within five years of the credit sale.
- E. Projects using in-lieu-fee credits shall have debits associated with the proposed impacts calculated by the applicant's qualified wetland scientist using the method consistent with the credit assessment method specified in the approved instrument for the in-lieu-fee program.
- F. Credits from an approved in-lieu-fee program may be used to compensate for impacts located within the service area specified in the approved in-lieu-fee instrument.

16.16.265 Critical Areas Protective Measures.

When an impact to critical area or a buffer will occur due to a proposed development, a standard buffer width has been altered, or mitigation is required, one or more of the following protective measures shall be applied:

A. General measures (applicable to all projects)

1. **Building Setbacks.** Buildings and other structures shall to be set back a minimum distance of 10 feet from the edge of geological hazard setback, a critical area buffer, or from the critical area where no buffer is required–, unless otherwise determined by the Director that a shorter distance will suffice. This setback is to avoid conflicts with tree branches and/or critical root zones of trees that are in the buffer or will be planted in the buffer. The following uses may be are-allowed in the building set-back from the buffer if they do not cause damage to the critical root zone of trees in the buffer:
 - a. Landscaping;
 - b. Uncovered decks less than 30 inches in height;
 - c. Building overhangs 18 inches or less;
 - d. Impervious surfaces, including such as driveways, parking lots, roads, and patios; provided, that such surfaces conform to the applicable water quality standards and that construction equipment does not enter or damage the buffer or critical area;
 - e. Clearing and grading;
 - f. Utilities, including Wwells, septic systems, and propane tanks with fuel capacities up to 500 gallons.
2. Temporary protection measures to identify location of critical areas and buffers such as construction fencing, erosion and sediment control, or similar shall be required during construction of the proposed project.

Comment [CES35]: Moved from below. Then amended on recommendation of our consultants. Mirrors COB regs.

B. Project Specific Measures. Based on the specifics of the project, the Director will determine which of the following apply:

1. **Tree Protection.** If significant trees are identified, such that their drip line extends beyond the reduced buffer edge, the following tree protection requirements must be followed:
 - a. A tree protection area shall be designed to protect each tree or tree stand during site development and construction. Tree protection areas may vary widely in shape, but must extend a minimum of five feet beyond the existing tree canopy area along the outer edge of the dripline of the tree(s), unless otherwise approved by the department.
 - b. Tree protection areas shall be added and clearly labeled on all applicable site development and construction drawings submitted to the department.
 - c. Temporary construction fencing at least thirty inches tall shall be erected around the perimeter of the tree protection areas prior to the initiation of any clearing or grading. The fencing shall be posted with signage clearly identifying the tree protection area. The fencing shall remain in place through site development and construction.
 - d. No clearing, grading, filling or other development activities shall occur within the tree protection area, except where approved in advance by the department and shown on the approved plans for the proposal.

Comment [CES36]: Added in keeping with similar tree protection measures adopted by Co/C in other parts of the WCC.

- e. No vehicles, construction materials, fuel, or other materials shall be placed in tree protection areas. Movement of any vehicles within tree protection areas shall be prohibited.
- f. No nails, rope, cable, signs, or fencing shall be attached to any tree proposed for retention in the tree protection area.
- g. The department may approve the use of alternate tree protection techniques if an equal or greater level of protection will be provided.

A-2. Deterrent Devices. The ~~technical administrator~~ Director, as a condition of permit approval, may require that the outer boundary of a wetland or habitat conservation area and its buffer, a mitigation site, a designated open space, or a conservation easement be identified with signs, markers, and/or fencing to minimize potentially harmful intrusions from adjacent land uses, to alert citizens to a potential public health or safety risk associated with a critical area, or to accomplish other objectives specifically provided for elsewhere in this chapter. The ~~technical administrator~~ Director shall provide specifications on the type, content, and size of the signs prior to permit approval. The signs shall be posted near primary access points and approximately every 200 feet along the critical area boundary.

3. Notice on Title. The owner of any property containing any critical area or buffer ~~that are not altered by a proposed development for which a development permit is about to be issued~~ shall record a ~~notice document~~ with the County Auditor Real Estate Records, ~~in a format approved provided by the technical administrator~~ on a format approved provided by the Director, and provide a copy of the filed notice to the Department of Planning and Development Services ~~department at the time prior to the project permit is being issued.~~ This requirement may be waived by the Director for certain geologically hazardous areas if s/he finds that the risk is so low as to not warrant notification (e.g., old alluvial deposits). The notice on title shall provide notice of:

- a. ~~advise of~~ The presence of a critical area(s) or buffer(s) on the property, and that limitations on actions in or affecting the critical area or buffer exist.
- b. ~~The notice shall provide that That~~ restrictions on uses within the critical area apply exist until such time as the Technical Administrator Director approves a change in to the restriction(s) and such approval is filed.

~~This~~ Such notice on title shall not be required for a development proposal by a public agency or public or private utility within a right-of-way or easement for which they do not have fee-simple title. ~~This requirement shall be waived by the technical administrator for certain geologically hazardous areas if s/he finds that the risk is so low as to not warrant notification (e.g., old alluvial deposits).~~

1-4. Tracts and Easements. Prior to final approval of any ~~development project~~ permit, the ~~part of the critical areas and required buffers that is located on the site within the review area (as specified in the Review & Reporting Requirements of each Article of this Chapter)~~ shall be protected using ~~one of the following mechanisms:~~

- a. For land divisions other than short plats, pPlaced in a separate tract or tracts owned in common by all lots ~~within a subdivision, short subdivision, or binding site plan or dedicated to a public or private land trust for conservation.~~

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- b. ~~For all other project permit types, Covered by~~ Placed in a protective conservation easement, on a form provided or approved by Whatcom County; ~~or~~
- c. Mitigation areas shall be placed in a native growth protection area (NGPA) easement, on a form provided or approved by Whatcom County.
- b. ~~public or private land trust dedication; or~~
- c. ~~Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as designation of a separate tract or tracts as determined by the county technical administrator or hearing examiner.~~

Comment [CES37]: Added to meet permanent protection requirements of existing text.

~~B. A. Building Setback. The county shall require buildings and other structures to be set back a minimum distance of 10 feet from the edge of geological hazard setback, a critical area buffer, or from the critical area where no buffer is required. The following uses are allowed in the building set back:~~

- ~~1. Landscaping;~~
- ~~2.1. Uncovered decks;~~
- ~~3.1. Building overhangs 18 inches or less;~~
- ~~4.1. Impervious surfaces such as driveways, parking lots, roads, and patios; provided, that such surfaces conform to the applicable water quality standards and that construction equipment does not enter or damage the buffer or critical area;~~
- ~~5.1. Clearing and grading;~~
- ~~6.1. Wells;~~

- C. **Indemnification.** At the ~~technical administrator~~ Director's discretion, when a permit is granted for development or use within a geologic, flood, or other hazard area, the property owner shall sign an indemnification agreement acknowledging hazards posed to the development and absolving the County of all responsibility, to be recorded against the property prior to permit issuance.

~~D. A. Temporary protection measures to identify location of critical areas and buffers such as construction fencing, erosion and sediment control, or similar shall be required during construction of the proposed project.~~

16.16.270 Reasonable Use Exceptions.

- A. If the application of this Chapter would result in denial of all reasonable and economically viable use of a property, and if such reasonable and economically viable use of the property cannot be obtained by consideration of a variance pursuant to WCC 16.16.273 (Variances), then a landowner may seek a reasonable use exception from the standards of this Chapter. Reasonable use exceptions are intended as a last resort when no plan for mitigation and/or variance can meet the requirements of this Chapter and allow the applicant a reasonable and economically viable use of his or her property. The reasonable use exception shall follow the variance and public notification procedures of WCC Title 22 (Land Use and Development).
- B. Requests for reasonable use exceptions shall be a Type III project permit application (See WCC Title 22, Land Use & Development).
- C. The Hearing Examiner shall only grant a reasonable use exception under all of the following conditions:
 - 1. The proposed development is otherwise allowed under Whatcom County code.

Comment [CES38]: Policy change: Staff is proposing that reasonable use exceptions be the last method of altering standards to allow reasonable economic use of constrained property, and that they be decided upon by the Hearing Examiner. However, to counter the additional time and cost of this process, staff is also proposing to use the new category of minor variances that Council recently created. (16.16.273 Variances.) They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number cases having to go to the Hearing Examiner.

Comment [CES39]: Moved from below

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2. There is no portion of the site where the provisions of this chapter allow reasonable economic use, including agricultural use or continuation of legal nonconforming uses.
3. The application of this Chapter would deny all reasonable and economically viable use of the property so that there is no reasonable and economically viable use with a lesser impact on the critical area than that proposed.
4. There is no feasible alternative to the proposed activities that will provide reasonable economic use with less adverse impact on critical areas and/or buffers. Feasible alternatives may include, but are not limited to, locating the activity on a contiguous parcel that is under the ownership or control of the applicant, change in use, reduction in size, change in timing of activity, and/or revision of project design.
5. Activities will be located as far as possible from critical areas and the project employs all reasonable methods to avoid adverse effects on critical area functions and values, including maintaining existing vegetation, topography, and hydrology. Where both critical areas and buffer areas are located on a parcel, buffer areas shall be disturbed in preference to the critical area.
6. The proposed development does not pose a threat to the public health and safety.
7. The proposed activities comply with all state, local and federal laws, such as special flood hazard areas restrictions and on-site wastewater disposal.
8. Measures shall be taken to ensure the proposed activities will not cause degradation of groundwater or surface water quality, or adversely affect drinking water supply.
9. Any proposed modification to a critical area will be evaluated by the Hearing Examiner through consideration of an approved critical area assessment report and habitat management plan and will be the minimum modification necessary to allow reasonable use of the property.
10. The inability of the applicant to derive reasonable use of the property is not the result of actions by the current or previous owners in segregating or dividing the property and/or creating the condition of lack of use after September 30, 2005.
11. The applicant has requested and been denied a variance under the provisions of WCC 16.16.273 (Variances).
12. For single-family residences, the maximum impact area shall not exceed 10% of the lot area or 2,500 square feet, whichever is greater; provided that in no instance shall it exceed ~~may be no larger than~~ 4,000 square feet. This impact area shall include the residential structure as well as appurtenant development that ~~are~~ is necessarily connected to the use and enjoyment of a single-family residence. ~~These~~ Such appurtenant developments includes garages, decks, driveways, parking, on-site septic systems, and all lawn and nonnative landscaping, with the following exceptions:
 - a. On lots outside of the shoreline jurisdiction, ~~when~~ an extended driveway is necessary to access a portion of a development site with the least impact on critical area and/or buffers, those portions of the driveway shall be excluded from the 4,000-square-foot maximum impact area; provided, that the access road or driveway meets the standards of WCC 16.16.620(~~ED~~) or 16.16.720(~~ED~~), as applicable.

Comment [DOE-Req40]: Required Change – This and the subsequent change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.065.A.

On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, approval of those driveway portions shall be sought through a shoreline variance (WCC 23.60.030) and the applicant shall demonstrate that the size and location of the driveway is the minimum relief necessary to access the development site.

A.D. The Hearing Examiner may issue conditions of approval including modifications to the size and placement of structures and facilities to minimize impacts to critical areas and associated buffers. The Hearing Examiner may also specify mitigation requirements that ensure that all impacts are mitigated to the maximum extent feasible using best available science.

A. Permit applicants for a property so encumbered by critical areas and/or buffers that application of this chapter, including buffer averaging, buffer reduction, or other mechanism, would deny all reasonable use may seek approval pursuant to the reasonable use standards and procedures provided in this section.

B. Reasonable Use Standards.

1. Nothing in this chapter is intended to preclude all reasonable economic use of property. If the application of this chapter would deny all reasonable economic use of the subject property, including agricultural use, use or development shall be allowed if it is consistent with the zoning code and the purposes of this chapter.
2. To qualify as a reasonable use, the technical administrator or hearing examiner, as appropriate, must find that the proposal is consistent with all of the following criteria:
 - a. There is no portion of the site where the provisions of this chapter allow reasonable economic use, including agricultural use or continuation of legal nonconforming uses;
 - b. There is no feasible alternative to the proposed activities that will provide reasonable economic use with less adverse impact on critical areas and/or buffers. Feasible alternatives may include, but are not limited to, locating the activity on a contiguous parcel that has been under the ownership or control of the applicant since September 30, 2005, change in use, reduction in size, change in timing of activity, and/or revision of project design;
 - c. Activities will be located as far as possible from critical areas and the project employs all reasonable methods to avoid adverse effects on critical area functions and values, including maintaining existing vegetation, topography, and hydrology. Where both critical areas and buffer areas are located on a parcel, buffer areas shall be disturbed in preference to the critical area;
 - d. The proposed activities will not result in adverse effects on endangered or threatened species as listed by the federal government or the state of Washington, or be inconsistent with an adopted recovery plan;
 - e. Measures shall be taken to ensure the proposed activities will not cause degradation of groundwater or surface water quality, or adversely affect drinking water supply;
 - f. The proposed activities comply with all state, local and federal laws, including those related to erosion and sediment control, pollution control, floodplain restrictions, and on-site wastewater disposal;
 - g. The proposed activities will not cause damage to other properties;

Comment [P/C41]: P/C moved to keep but slightly modify the original language as shown. Passes 9-0.

Comment [DOE-Req42]: To do: Ryan says to keep a but move b to T-23

Comment [DOE-Req43]: Required Change – This and the previous change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.065.A.

- h. The proposed activities will not increase risk to the health or safety of people on or off the site;
- i. The inability to derive reasonable economic use of the property is not the result of segregating or dividing the property and/or creating the condition of lack of use after September 30, 2005;
- j. The project includes mitigation for unavoidable critical area and buffer impacts in accordance with the mitigation requirements of this chapter;
- ~~k. a. For single family residences, the maximum impact area may be no larger than 4,000 square feet. This impact area shall include the residential structure as well as appurtenant development that are necessarily connected to the use and enjoyment of a single family residence. These appurtenant developments include garages, decks, driveways, parking, on-site septic systems, and all lawn and nonnative landscaping, with the following exceptions:~~
 - ~~i. On lots outside of the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical area and/or buffers, those portions of the driveway shall be excluded from the 4,000 square foot maximum impact area; provided, that the access road meets the standards of WCC 16.16.620(E) or 16.16.720(C), as applicable.~~
 - ~~ii. i. On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, approval of those driveway portions shall be sought through a shoreline variance (WCC 22.60.030) and demonstrate that the size and location of the driveway is the minimum relief necessary to access the development site.~~

C. Reasonable Use Procedures.

- 1. Procedural requirements for reasonable use exception applications shall be as follows:
 - a. Reasonable use exception applications shall be subject to an open record public hearing; except, that reasonable use exception applications for single family residential building permits, or for other development proposals that would affect critical area buffers, but not the critical areas themselves, shall be processed administratively by the technical administrator.
 - b. Reasonable use exception applications that require an open record hearing shall be processed in accordance with Chapter 22.05 WCC.
 - c. Reasonable use exception applications that are subject to administrative approval by the technical administrator shall be processed in accordance with Chapter 22.05 WCC.
 - d. The hearing examiner or technical administrator shall have the authority to set an expiration date for any or all reasonable use approvals. The development proposal must be completed before the approval expires.
 - e. Any person aggrieved by the granting, denying, or rescinding of a reasonable use exception by the technical administrator or any party of record may appeal the technical administrator's decision pursuant to WCC 16.16.280 or the hearing examiner decision pursuant to Chapter 22.05 WCC.

- f. ~~Any application for a reasonable use exception or approval which remains inactive for a period of 180 days shall expire and a new application and repayment of fees shall be required to reactivate the proposal; provided, that the technical administrator may grant a single 90-day extension for good cause. Delays such as those caused by public notice requirements, environmental (SEPA) review, litigation directly related to the proposal, or changes in government regulations shall not be considered as part of the inactive period.~~
- 2. ~~All reasonable use exception applications or other approvals shall be subject to the provisions of this chapter, which are in effect at the time of application.~~
- 3. ~~Each application for a reasonable use exception shall be accompanied by a fee as stated in the unified fee schedule.~~
- 4. ~~In making reasonable use decisions, the technical administrator shall have the authority to require submittal of technical reports in accordance with WCC 16.16.255 and/or 16.16.260(B).~~

16.16.273 Variances.

- A. ~~Where strict application of and compliance with the dimensional requirements of this chapter renders compliance with these provisions an undue hardship and when no other feasible alternative exists, permit applicants may seek a variance for relief.~~
- B. ~~As described in WCC 22.05.024 (Variances) there are two types of variances pertaining to this Chapter: Minor and Major variances.~~
 - 1. ~~Minor variances shall be limited to variances for a 25% to 50% reduction of critical area buffers.~~
 - 2. ~~Major variances include all other variances.~~
- A-C. ~~pursuant to WCC 20.84.100. A variance applications shall be processed pursuant to WCC 22.05.024 (Variances), or if in the shoreline jurisdiction WCC 22.07.050 (Shoreline Variances), Chapter 22.05 WCC and meet the criteria therein.~~

16.16.275 Nonconforming Uses, Structures, and Lots ~~uses/buildings~~.

The following provisions shall apply to legally existing uses, ~~and/or buildings and/or~~ structures, or lots that do not meet the specific standards of this chapter:

- A. The lawful use of any legal nonconforming building, structure, land, or premises existing on September 30, 2005, or authorized under a permit or approval issued, or otherwise vested, prior to that date may be continued, subject to this section and the provisions for a nonconforming structure in WCC Chapter 20.83; provided, that agricultural activities shall conform to Article 8 of this chapter (Conservation Program on Agriculture Lands).
- ~~A-B.~~ If a nonagricultural nonconforming use or structure is intentionally abandoned for a period of five years ~~12 months~~ or more, then any future use of the nonconforming building, land, or premises shall be consistent with the provisions of this chapter.
- ~~B-C.~~ Expansion, alteration, and/or intensification of a nonconforming use is prohibited.
- ~~C-D.~~ Expansion, alteration, and/or intensification of a legal nonconforming building, or structure (including normal maintenance and repair), is allowed unless such use will produce impacts that degrade the critical area, including but not limited to vegetation clearing; additional impervious surfaces; generation of surface water runoff; discharge, or risk of discharge of pollutants; increased noise, light or glare; or increased risk associated with geologically hazardous areas.

Comment [CES44]: To make consistent with T-20

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~~D.E.~~ Nonconforming structures that are completely destroyed by fire, explosion, flood, or other casualty may be restored or replaced in kind if there is no alternative that allows for compliance with the standards of this chapter; provided, that:

1. ~~Intentional demolition or removal is not a casualty.~~

Comment [CES45]: To be consistent with SMP

~~1-2.~~ The reconstruction process is commenced within ~~five years~~ 18 months of the date of such damage; and

Comment [CES46]: To be consistent with SMP

~~2-3.~~ The reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in subsection C of this section.

~~E.F.~~ Nonconforming uses, structures, and lots in the shoreline areas-jurisdiction shall be governed by the shoreline management provisions of WCC Title 23.

~~F.G.~~ When a development project permit is sought for a parcel containing a nonconforming building or structure that has been intentionally abandoned for a period of five years or more, the technical administrator/Director may require removal of the nonconforming building and restoration of the critical area or buffer in accordance with this chapter as a condition of permit approval.

16.16.280 Appeals.

Final permit decisions shall be subject to appeal in accordance with the procedures of WCC Chapter 22.05.

16.16.285 Penalties and Enforcement.

- A. Any person who violates any of the provisions of this chapter shall be liable for a civil offense and may be fined a sum not to exceed \$1,000 for each offense. After a notice of violation has been given, each day of site work in conjunction with the notice of violation shall constitute a separate offense.
1. The penalty provided in subsection A of this section shall be assessed and may be imposed by a notice in writing either by certified mail with return receipt requested or by personal service to the person incurring the same. The notice shall include the amount of the penalty imposed and shall describe the violation with reasonable particularity. In appropriate cases, corrective action shall be taken within a specific and reasonable time.
 2. Within 30 business days after the notice is received, the person incurring the penalty may apply in writing to the County for remission or mitigation of such penalty. Upon receipt of the application, the County may remit or mitigate the penalty upon whatever terms the County in its discretion deems proper. The County's final decision on mitigation or revision shall be reviewed by the Hearing Examiner if the aggrieved party files a written appeal therewith of said decision within 10 business days of its issuance.
- B. If work activity has occurred on a site in violation of this chapter, prompt corrective action, restoration, or mitigation of the site will be required when appropriate. If this provision is not complied with, the County may restore or mitigate the site and charge the property owner for the full cost of such an activity. Additionally, any and all permits or approvals issued by the County may be denied for that site for a period of up to six years.
- C. In the event any person violates any of the provisions of this chapter, the County may issue a correction notice to be delivered to the owner or operator, or to be conspicuously posted at the

site. In a nonemergency situation, such notice may include notice of the intent to issue a stop work order no less than 10 business days following the receipt of the correction notice, and provide for an administrative pre-deprivation hearing within 10 business days of the notice. In an emergency situation where there is a significant threat to public safety or the environment, the County may issue a stop work order. The stop work order shall include, in writing, the right to request an administrative pre-deprivation hearing within 72 hours following receipt of the stop work order. Failure to comply with the order to stop work shall be a gross misdemeanor punishable upon conviction by a minimum fine of \$500.00 up to a maximum fine of \$1,000 or one year in jail, or both. Under no circumstance may the court defer or suspend any portion of the minimum \$500.00 fine for any conviction under this section. Each day or part thereof of noncompliance with said order to stop work shall constitute a separate offense.

- D. The County may suspend or revoke a permit if the applicant violates the conditions or limitations set forth in the permit or exceeds the scope of the work set forth in the permit.
- E. The prosecuting attorney may enforce compliance with this chapter by such injunctive, declaratory, or other actions as deemed necessary to ensure that violations are prevented, ceased, or abated.
- F. Any person who, through an act of commission or omission, procures, aids, or abets in the violation shall be considered to have committed a violation for the purposes of the civil penalty.
- G. After the Fact Permit Fee. After the fact permit application fees shall be double the amount established by the unified fee schedule.

16.16.295 Open Space and Conservation.

The following programs may be employed to ~~achieve the purposes of this chapter and~~ minimize the burden to individual property owners from application of the provisions of this chapter:

- A. Open Space. Any property owner whose property contains a critical area or buffer and who meets the applicable qualifying criteria may apply for open space taxation assessment pursuant to Chapter [84.34](#) RCW.
- B. ~~Native Growth Protection Area (NGPA) Conservation~~-Easement. Any person who owns an identified critical area or its associated buffer may place a ~~conservation-NGPA~~ easement over that portion of the property by naming the County or its qualified designee under RCW [64.04.130](#) as beneficiary of the conservation. This ~~conservation-NGPA~~ easement may be in lieu of separate critical areas tracts that qualify for open space tax assessment described in subsection A of this section. The purpose of the easement shall be to preserve, protect, maintain, and limit use of the affected property. The terms of the ~~conservation-NGPA~~ easement may include prohibitions or restrictions on access and shall be approved by the property owner and the County.
- C. Conservation Futures Fund. The County may consider using the conservation futures property tax fund as authorized by RCW [84.34.230](#) for the acquisition of properties containing significant critical areas and their associated buffers.

Article 3. Geologically Hazardous Areas

16.16.300 Purpose.

The purpose of this article is to reduce risks to human life and safety and reduce the risk of damage to structures and property from geologic hazards, to allow for natural geologic processes supportive of forming and maintaining fish and wildlife habitat, and to regulate and inform land use and planning decisions. It is recognized that the elimination of all risk from geologic hazards is not feasible to achieve but the purpose of this article is to reduce the risk to acceptable levels.

16.16.310 Geologically Hazardous Areas – Designation, Mapping, and Classification.

- A. Designation. Lands determined to be landslide, seismic, alluvial fan, volcanic, erosion (including channel migration zones), tsunami, seiche and landslide generated waves or mine hazard areas are hereby designated as geologically hazardous areas. Development in these geologic hazard areas can put human life, safety, health, and development at risk, alter geologic processes, adversely affect natural resources, and put the development and surrounding developments and uses at risk.
- B. Mapping. The approximate location and extent of known potential geologically hazardous areas are shown on maps maintained by the County. These maps are useful as a guide for project applicants and/or property owners, and County review of development proposals. However, they do not provide a conclusive or definitive indication of geologically hazardous area presence or extent. Potential geologically hazardous areas may exist that do not appear on the maps, and some potential geologically hazardous areas that appear on the maps may not meet the geologically hazardous areas designation criteria. The County shall update the maps periodically as new information becomes available and may require additional studies during the development review process to supplement and/or confirm the mapping. This chapter does not imply that land outside mapped geologically hazardous areas or uses permitted within such areas will be without risk. This chapter shall not create liability on the part of Whatcom County or any officer or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.
- C. Classification. For purposes of this chapter, geologically hazardous areas shall include all of the following:
 1. Landslide Hazard Areas. Landslide hazard areas shall include areas potentially susceptible to landslides based on a combination of geologic, topographic, and hydrologic factors, as specified below. They include any areas susceptible to mass movement due to any combination of bedrock, soil, slope (gradient), slope aspect, slope form (concave, convex, planar), geological structure, surface and subsurface hydrology, or other factors. Landslide hazard areas shall also include areas along which landslide material may be routed or which may be subject to deposition of landslide-delivered material. Potential landslide hazard areas include but are not limited to the following areas:
 - a. Potential Landslide Hazard Areas. Potential landslide hazard areas exhibit one or more of the following characteristics:

- i. Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by the U.S. Geological Survey, Washington State Department of Natural Resources, or other reputable sources;
- ii. Areas with all three of the following characteristics:
 - (A) Slopes steeper than ~~15%-percent~~;
 - (B) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - (C) Springs or groundwater seepage;
- iii. Areas that have shown movement and/or are underlain or covered by mass wastage debris;
- iv. Potentially unstable slopes resulting from river or stream erosion or undercutting by wave erosion;
- v. Slopes having gradients steeper than ~~80%-percent~~ subject to rockfall during seismic shaking;
- vi. Areas that show past sloughing or calving of sediment or rocks resulting in a steep slope that is poorly vegetated;
- vii. Slopes that are parallel or sub-parallel to planes of weakness (which may include but not be limited to bedding planes, soft clay layers, joint systems, and fault planes) in subsurface materials;
- viii. Areas that show evidence of, or are at risk from, snow avalanches;
- ix. Deep-seated landslide areas characterized by one or more of the following features: scalloped ridge crests at the top of the slope, crescent-shaped depressions, head scarps, side scarps, ponds or sag areas on midslopes, benches and scarps on midslope areas, hummocky ground, or linear fractures in the ground. These features may be evident in aerial images, topographic maps, LiDAR imagery or on the ground;
- x. Areas below unstable slopes that could be impacted by landslide run-out;
- xi. Areas above or adjacent to unstable slopes that could be impacted if the landslide area expands;
- xii. Any area with a slope of ~~40%-percent~~ or steeper and with a vertical relief of 10 or more feet except areas composed of competent bedrock or properly engineered slopes designed and approved by a geotechnical engineer licensed in the state of Washington and experienced with the site;
- xiii. Areas within which land use activities could affect the slope stability, including but not limited to areas with subsurface hydrologic flow, groundwater recharge areas and surface water flow;
- xiv. Areas of historical landslide movement including coastal shoreline areas mapped by the Department of Ecology Coastal Zone Atlas or the Department of Natural Resources slope stability mapping as unstable ("U" or Class 3), unstable old slides ("UOS" or Class 4), or unstable recent slides ("URS" or Class 5).

- b. Active Landslide Hazard Areas. Active landslide hazard areas are areas that exhibit indicators noted in subsection (C)(1)(a) of this section that have been determined through geological assessment to be presently failing or very likely to fail in the near future.
- 2. Seismic Hazard Areas. Whatcom County is located in a seismically active area that will be subject to ground motion during local and regional earthquakes. Seismic hazards and risk are partially addressed in the International Building Code (IBC) or International Residential Code (IRC). Additional seismic hazard areas for the purpose of this chapter include:
 - a. Areas designated as having a “high” and “moderate to high” risk of liquefaction susceptibility as mapped on the Liquefaction Susceptibility Map by the Washington State Department of Natural Resources.
 - b. Areas that are identified as underlain by liquefiable soils and due to local topography are also subject to or interpreted as being potentially impacted by lateral spreading.
 - c. Areas located within 500 feet of quaternary fault zones with surface offsets.
- 3. Alluvial Fan Hazard Areas. Any area located at the base of a confined mountain channel and determined to be susceptible to clear water flooding, debris-laden flows and floods, and erosional impacts shall be designated as an alluvial fan hazard area. Watershed hydrology, geology, slope conditions, topography, current and historic land uses, roads and road drainage, valley bottom conditions, and channel conditions upstream of an alluvial fan area are all fundamental to potential hazards and risks on alluvial fans. Alluvial fan hazard areas shall include those areas on alluvial fans potentially impacted by:
 - a. Sediment-laden flows (e.g., debris flows and debris floods);
 - b. Clear water floods;
 - c. Stream channel changes (including channel avulsion, incision, aggradation or lateral erosion and migration);
 - d. Erosion.
- 4. Volcanic Hazard Areas. Volcanic hazard areas are those areas that have been affected, or have the potential to be affected, by pyroclastic flows, pyroclastic surges, lava flows, or ballistic projectiles, ash and tephra fall, volcanic gases, and volcanic landslides. Also included are areas that have been or have the potential to be affected by Case M, Case I, or Case II lahars, or by debris flows or sediment-laden events originating from the volcano or its associated deposits. In addition, volcanic hazards include secondary effects such as sedimentation and flooding due to the loss of flood conveyance as a result of river channel and flood plain aggradation. The implications of secondary effects may be observed at some distance from the initiating event, and may continue to impact affected drainages over many decades following the initiating event. Secondary effects may significantly alter existing stream and river channels, associated channel migration zones and floodplains due to stream and river bed aggradation and channel avulsion. Volcanic hazards include areas that have not been affected recently, but could be affected by future events. Volcanic hazard areas are classified into the following categories:
 - a. Pyroclastic Flow Hazard Areas. Areas that could be affected by pyroclastic flows, pyroclastic surges, lava flows, and ballistic projectiles in future eruptions. During any single eruption,

some drainages may be unaffected by any of these phenomena, while other drainages are affected by some or all phenomena. Recurrence interval is not known.

- b. Ash/Tephra Fall Hazard Areas. The location of ash/tephra fall hazards at Mount Baker is predominantly controlled by the prevailing westerly winds observed on the west coast of North America. However, easterly winds do occur in the region and direct ash/tephra fall impacts to Whatcom County population centers are certainly a possibility. Health hazards, power outages, negative impacts to machinery and aircraft, structural damage (e.g., roof collapse) and extensive disruption of daily activities are all potential hazards.
- c. Lateral Blast Hazard Areas. Lateral blast hazards result from low-angle, explosive volcanic eruptions that emanate from the flank of a volcano. The occurrence of a lateral blast is largely unpredictable, both with respect to timing and direction, and does not appear to be a common feature of eruptive activity at Mount Baker or at other volcanoes globally. Extensive destruction is likely within the lateral blast zone, and mitigation is generally considered unachievable.
- d. Volcanic Landslide Hazard Areas. Landslides are common on volcanoes due to their relative height, steepness, and weakness in both the underlying bedrock and the volcanic deposits due to magma movement and chemical weathering. Landslide size is highly variable depending on site conditions and type, but may achieve high velocity and momentum which can carry a landslide across valleys and ridgelines. Given the range of possible landslide types and sizes, specific hazards, risk zones and recurrence interval have not been delineated at Mount Baker. Volcanic landslide hazards are associated with lahar hazards as they pose the potential to generate small- to large-scale cohesive lahars.
- e. Lahar Hazard Areas.
 - a. Case M Lahar Hazard Areas. Areas that could be affected by cohesive lahars that originate as enormous avalanches of weak, chemically-altered rock from the volcano. Case M lahars can occur with or without eruptive activity. A single, post-glacial Case M lahar deposit is known to have traveled down the Middle Fork Nooksack River, and is postulated to have continued down the main stem of the Nooksack River, eventually reaching Bellingham Bay, and to have also flowed north to Canada along the prehistoric path of the Nooksack River. Case M lahars are thus interpreted to pose a threat to the Sumas River drainage due to the potential for bed aggradation and channel avulsion to overtop the low-lying drainage divide that exists between the Nooksack and Sumas River drainages. Case M lahars are considered high-consequence, low-probability events.
 - b. Case I Lahar Hazard Areas. Areas that could be affected by relatively large non-cohesive lahars, which most commonly are caused by the melting of snow and glacier ice by magmatic activity and associated processes, but which can also have a non-eruptive origin. The average recurrence interval for Case I lahars, based on deposits identified along the flanks of Mount Baker, is postulated to be 500 years or greater. However, renewed magmatic activity at Mount Baker would be indicative of greatly increased

potential for Case I lahar generation; this may reduce the recurrence interval to approximate that of Case II lahars.

- c. Case II Lahar Hazard Areas. Areas that could be affected by moderately large debris avalanches or small cohesive lahars, or other types of debris flow generated on the east flank of Mount Baker at Sherman Crater or the upper Avalanche Gorge. Case II lahars impact the Baker Lake basin and drainage, and are considered correlative to Case I lahars that may impact the primary drainages on the west and north of Mount Baker, but with increased frequency and comparable volume. The postulated recurrence interval for Case II lahars at Mount Baker is less than 100 years.
5. Erosion Hazard Areas. Erosion hazard areas shall include:
 - a. Channel migration zones, also known as riverine erosion areas, are defined as the areas along a river or stream within which the channel(s) can be reasonably predicted to migrate over time. This is a result of natural and normally occurring geomorphic, hydrological, and related processes when considered with the characteristics of the river or stream and its surroundings, and in consideration of river and stream management plans. Channel migration hazard areas shall include potential channel migration, channel avulsion, bank erosion, and stability of slopes along the river or stream;
 - b. Coastal erosion areas that are subject to shoreline retreat from wind, wave, and tidal erosion.
6. Tsunami Hazard Areas. Tsunami hazard areas include coastal areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of a tsunami generated by seismic events.
7. Seiche and Landslide Generated Wave Hazard Areas. Seiche and landslide generated wave hazard areas include lake and marine shoreline areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of a seiche or landslide generated waves. No known best available science is currently available to characterize potential seiche hazards in Whatcom County.
8. Mine Hazard Areas. Mine hazard areas shall include those lands in proximity to abandoned mines and associated underground mine workings where mine workings are less than 200 feet below ground level. Mine workings include adits (mine entrances), gangways (haulage tunnels), rooms and chutes (large voids), drifts, pillars (rock left for support) and air shafts. Mine hazards include subsidence, which is the uneven downward movement of the ground surface caused by underground workings caving in; sink holes; contamination of ground and surface water from tailings and underground workings; concentrations of lethal or noxious gases; and underground mine fires.

16.16.320 Geologically Hazardous Areas – Protective Measures~~General standards.~~

In addition to the applicable general protective measures found in WCC [16.16.265](#), the following requirements shall apply to all activities in geologically hazardous areas:

- A. **Generally.** New developments shall be located and/or engineered and constructed to reduce risks to life, health, safety, and buildings, and not increase potential for landslides or erosion that could

impact either other properties, public resources, or other critical areas. The County may impose conditions on development activity in a geologically hazardous area as needed to:

1. Protect human life and safety;
2. Minimize the potential for property damage related to seismic events, erosion and/or landslides;
3. Minimize the need for stream or riverbank or coastal bluff stabilization in the future;
4. Reduce public liabilities for damages associated with geologic hazards;
5. Protect slope stability and minimize erosion, seismic, and/or landslide hazard risks;
6. Maintain natural sediment and erosion processes that are integral to the health and sustainability of freshwater and marine ecosystems as well as minimizing impacts to stream, river, and coastal processes such as channel infill, channel migration, sediment transport, or flooding;

B. **Impact Avoidance.** Impact avoidance measures shall include, but not be limited to, locating the use/development outside of the hazard area, reducing the number, size or scale of buildings and appurtenant features; altering the configuration or layout of the proposed development; implementing special engineering methods for construction, drainage, runoff management, etc.; preserving native vegetation; and other feasible protective measures as determined by an alternatives analysis. For some geologic hazards (except for lahar hazards), impact avoidance may mean no development will be permitted on a property. So long as an applicant complies with WCC [16.16.350\(B\)](#), the County shall not require lahar hazard impact avoidance measures that reduce the number, size, or scale of buildings or appurtenant features; or prevent uses otherwise allowed per the property's zoning district based solely on the property's location within a lahar hazard zone.

C. **Stormwater Management.** Development shall manage on-site stormwater by developing a properly sized stormwater management system using appropriate stormwater techniques to protect geologically hazardous areas. Low Impact Development and Low Impact Development Best Management Practices are preferred, unless demonstrated to be infeasible.

~~C.D.~~ **Location of Alterations.** New development shall be directed toward portions of a parcel or parcels under contiguous ownership that are not subject to, or at risk from, geological hazards (except for lahar hazards) and/or are outside any setback or buffer established by this chapter.

~~D. **Critical Facilities Prohibited.** Critical facilities as defined in WCC [16.16.900](#) shall not be constructed or located in geologically hazardous areas if there is a feasible alternative location outside geologically hazardous areas that would serve the intended service population. If allowed, the critical facility shall be designed and operated to minimize the risk and danger to public health and safety to the maximum extent practicable.~~

Comment [CES47]: Moved to 16.16.322

E. **Review by Qualified Professional.** A geologist or other qualified professional, licensed in the state of Washington, shall review development proposals that occur in potentially geologically hazardous areas to determine the potential risk. If development takes place within an identified geologically hazardous area requiring design or structural elements to minimize the hazard, the mitigation shall be designed by a qualified professional licensed in the state of Washington with expertise in mitigation of geological hazards.

- F. **Life of Structure.** Proposed development shall be sited far enough from erosion and landslide hazard areas to ensure at least 100 years of useful life for the proposed structure(s) or infrastructure. The location ~~should~~ shall be determined by a geologist or other qualified professional licensed in the state of Washington and ~~should~~ be based on site-specific evaluation of the landslide and/or erosion hazard.

16.16.322 Geologically Hazardous Areas – General Use or Modification.

- A. **Remodels and Additions.** Any proposed remodel or addition to an existing permitted or nonconforming structure that exceeds a valuation of greater than 50% ~~percent~~ of the fair market value shall be required to ensure that the entire structure is improved in accordance with all Article 3 requirements.

- B. **Critical Facilities Prohibited.** Critical facilities as defined in WCC 16.16.900 shall not be constructed or located in geologically hazardous areas if there is a feasible alternative location outside geologically hazardous areas that would serve the intended service population. If allowed, the critical facility shall be designed and operated to minimize the risk and danger to public health and safety to the maximum extent practicable.

Comment [CES48]: Moved from 16.16.320

- ~~B-C.~~ **Agricultural Activities.** Agricultural activities (uses and structures) may be allowed within geologically hazardous areas without a conservation farm plan as long as the activity does not increase the potential for landslides, channel migration, or alluvial fan hazards on or off the site; except, that a conservation farm plan shall be required for agricultural activities within landslide hazard areas and associated landslide hazard area setbacks (WCC [16.16.325\(C\)](#)).

- ~~C-D.~~ **Land Subdivision.** Land that is located wholly within a landslide hazard area, riverine or coastal erosion hazard area, alluvial fan hazard area, lahar hazard area, or mine hazard area or its buffer may not be subdivided to create buildable parcels entirely within the hazardous area. Land that is located partially within a hazard area or its setback may be divided; provided, that each resulting lot has sufficient buildable area outside of the hazardous area with provision for drainage, erosion control and related features that will not adversely affect the hazard area or its setback.

16.16.325 Landslide Hazard Areas – Use and Modification Standards.

- A. ~~General Standards.~~ **Allowed Uses and Modifications.** The following uses and modifications ~~activities~~ may be allowed in active landslide hazard areas when all reasonable measures have been taken to minimize risks and other adverse effects associated with landslide hazards, and when the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose:

1. **Reasonable Use.** Developments that will not increase the threat to the health or safety of people and will not increase potential for landslides on or off the site and meet the reasonable use standards as set forth in WCC [16.16.270](#).
2. **Utilities.** Utility lines and pipes that are above ground, properly anchored and/or designed so that they will continue to function in the event of a slope failure or movement of the underlying materials and will not increase the risk or consequences of static or seismic slope instability or result in a risk of mass wasting. Such utility lines may be permitted only when the applicant demonstrates that no other feasible alternative is available to serve the affected population.

3. **Trails.** Trails shall be meet all of the following:

- a. The applicant demonstrates that no other feasible alternative exists.
- b. The trail engineering design and construction methods minimize the need for major repair or reconstruction.
- c. Specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.
- d. Exceptions or deviations from technical standards for width or other dimensional measurements may require a variance.

4. **Development Access.** Access driveways and roads shall meet all of the following:

- a. The applicant demonstrates that no other feasible alternative exists, including through the provisions of Chapter 8.24 RCW.
- b. A qualified professional designs the driveway or access road to minimize the need for major repair or reconstruction. The design shall provide a greater level of protection than road or driveway standards outside of geological hazardous areas.
- c. Specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.
- d. Exceptions or deviations from technical standards for width or other dimensional measurements may require a variance.

~~3. Access roads and trails that are engineered and built to standards that minimize the need for major repair or reconstruction beyond that which would be required in nonhazard areas. Access roads and trails may be permitted only if the applicant demonstrates that no other feasible alternative exists, including through the provisions of Chapter 8.24 RCW. If such access through critical areas is granted, exceptions or deviations from technical standards for width or other dimensions and specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.~~

4.5. **Stormwater.** Stormwater conveyance through a properly designed stormwater pipe when no other storm-water conveyance alternative is ~~available~~ feasible. The pipe shall be located above ground and be properly anchored and/or designed so that it will continue to function in the event of a slope failure or movement of the underlying materials and will not increase the risk or consequences of static or seismic slope instability or result in increased risk of mass wasting activity.

B. **Landslide Hazard Management Zone Standards.** Alteration may be allowed within 300 feet of an active landslide hazard area when the ~~technical administrator~~ Director determines that the following standards are met:

- 1. The proposed alteration includes all appropriate measures to avoid, eliminate, reduce, or otherwise mitigate risks to health and safety.
- 2. The proposed alteration is located outside of a landslide hazard area and any required setback, as set forth in WCC [16.16.325\(C\)](#).
- 3. The development will not decrease slope stability on adjacent properties. The development shall not increase the risk or frequency of landslide occurrences.

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4. The removal and disturbance of vegetation, clearing, or grading shall be limited to the area of the approved development.
5. The development is outside of the area of potential upslope or downslope surface movement or potential deposition in the event of a slope failure.
6. The development will not increase or concentrate surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions.
7. The proposed alterations will not adversely impact other critical areas.
8. Structures and improvements shall minimize alterations to the slope contour, and shall be designed to minimize impervious lot coverage unless such alterations or impervious surfaces are needed to maintain slope stability.

C. **Landslide Hazard Area Setbacks.** ~~In addition to the applicable general protective measures found in WCC 16.16.265, the technical administrator shall have the authority to require~~ Setbacks shall be required from the edges of any identified landslide hazard area in accordance with the following:

1. The size of the setback shall be based on the findings of a qualified professional and shall minimize the risk of property damage, death, or injury resulting from landslides both on and off the property; provided, that the Director may require a minimum setback in accordance with International Building Codes adopted by Whatcom County.
2. The setback shall include consideration of the hydrologic contribution area to the potential landslide area and/or the area subject to the potential for mass movement, and the downhill area subject to potential deposition.
3. The setback shall include consideration of vegetation on the potential landslide area and in areas above and below the potential landslide area. ~~The technical administrator~~ Director shall have the authority to require vegetation or other measures to protect or improve slope stability and shall have the authority to require a mitigation plan developed in accordance with WCC 16.16.260, and a conservation easement in accordance with WCC 16.16.265(C) to ensure appropriate vegetation improvements are installed, maintained, and preserved.
4. Developments on sites that are directly adjacent to a wetland, marine shoreline, or other habitat conservation area as defined in Article 7 of this chapter may be subject to additional buffer requirements and standards as set forth in the subsequent articles of this chapter.

16.16.340 Seismic Hazard Areas – Use and ModificationStandards.

Development may be allowed in seismic hazard areas when all of the following apply:

- A. Structures in seismic hazard areas shall conform to applicable analysis and design criteria of the International Building Code.
- B. Public roads, bridges, utilities, and trails shall be allowed when there are no feasible alternative locations, and geotechnical analysis and design are provided that minimize potential damage to roadway, bridge, and utility structures, and facilities will not be susceptible to damage from seismically induced ground deformation. Mitigation measures shall be designed in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual or other appropriate document.

16.16.345 Alluvial Fan Hazard Areas – ~~Use and Modification~~Standards.

The following ~~uses and modification~~activities may be allowed in alluvial fan hazard areas when all reasonable measures have been taken to minimize risks and other adverse effects associated with alluvial fan hazards, when the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose, and when the applicable general protective measures found in WCC [16.16.265](#) have been applied:

- A. **Reasonable Use.** Developments that will minimize the threat to the health or safety of people and will not increase the risks of alluvial fan hazards on or off the site and meet the reasonable use standards as set forth in WCC [16.16.270](#).
- B. **Infrastructure.** Roads, utilities, bridges, and other infrastructure that are located and designed to minimize adverse impacts on critical areas and avoid the need for channel dredging or diking or other maintenance activities that have the potential to substantially degrade river and stream functions.
- C. Permanent residential structures and commercial developments shall be allowed in alluvial fan hazard areas only if the fan has undergone a County-approved study to assess potential hazards, determine risks, and identify mitigation measures and is deemed suitable for development. The ~~technical administrator~~ **Director** shall make this determination based on a detailed assessment by a qualified professional that identifies the risks associated with a 500-year return period debris flow or the maximum credible event that could impact the alluvial fan.
- D. Accessory structures not involving human occupancy shall be allowed as long as the structure will not increase the alluvial fan hazards on or off the site.

16.16.350 Volcanic Hazard Areas – ~~Use and Modification~~Standards.

- A. Ash/Tephra Fall and Lateral Blast Hazard Areas. Development may be allowed in these areas; provided, that all reasonable measures have been taken to minimize risks and adverse effects, and when the amount and degree of the alteration is limited to the minimum needed to accomplish the project purpose, and when the applicable general protective measures found in WCC [16.16.265](#) and the standards of WCC [16.16.320](#) have been applied.
- B. Lahar Hazard Zones.
 - 1. Subject to WCC [16.16.320](#)(A) through (C) and WCC [16.16.265](#), the following uses are allowed in any volcanic hazard areas:
 - a. Single-family residences and duplexes.
 - b. Accessory structures not involving human occupancy.
 - c. Sewer collection facilities, communication facilities, and other utilities that are not likely to cause harm to people or the environment if inundated by a lahar. Underground utilities such as pipelines shall be allowed if demonstrated through a geotechnical analysis to be sufficiently buried as to not likely be damaged by scour caused by a lahar.
 - d. Agricultural and forestry uses not including human habitation.
 - 2. Subject to WCC [16.16.320](#)(A) through (C) and WCC [16.16.265](#) (except subsection D when located wholly within a lahar hazard zone), the following uses are allowed in volcanic hazard areas subject to the submittal and approval of a volcanic hazard emergency management plan meeting the requirements of subsection (B)(3) of this section; however, this requirement may

be waived for properties located in an area with an estimated lahar arrival time of more than 60 minutes. The County will maintain travel time projection maps to estimate lahar approach times.

- a. Expansion of legal nonconforming uses meeting criteria of WCC [16.16.275](#) and WCC Chapter [20.83](#).
- b. All other uses allowed per the property's zoning district.
3. Where required by subsection (B)(2) of this section, a volcanic hazard emergency management plan shall be submitted for approval and meet the following requirements:
 - a. Is consistent with and integrated into a community emergency plan maintained by the sheriff's office of emergency management.
 - b. Includes an emergency evacuation plan.
 - c. Is required to be updated every five years.
 - d. Evacuation route maps must be posted on the premises.

16.16.355 Erosion Hazard Areas – ~~Use and Modification~~Standards.

- A. General Standards. For coastal, riverine, and stream erosion hazard areas, the following activities shall be allowed when the applicable general protective measures found in WCC [16.16.265](#) have been applied and as follows:
 1. Developments that minimize the threat to the health or safety of people and will not increase the risks of erosion hazards on or off the site and meet the reasonable use or variance standards as set forth in WCC [16.16.270](#) or [16.16.273](#), respectively.
 2. Discharge of surface water drainage into a coastal or riverine erosion hazard area, provided there are no other alternatives for discharge, and the drainage is collected upland of the top of the active erosion hazard area and directed downhill in an appropriately designed stormwater pipe that includes an energy dissipating device at the base of the hazard area. The pipe shall be located on the surface of the ground and be properly anchored so that it will continue to function under erosion conditions and not create or contribute to adverse effects on downslope critical areas. The number of pipes ~~should~~ shall be minimized along the slope frontage.
 3. Stormwater retention and detention systems, such as dry wells and infiltration systems using buried pipe or French drains, provided they are located outside the identified channel migration zone, designed by a qualified professional and shall not affect the stability of the site.
 4. Utility lines when no feasible conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will not preclude or interfere with channel migration and will continue to function under erosion conditions; provided, that utility lines may be located within channel migration zones if they are buried below the scour depth for the entire width of the Channel Migration Zone (CMZ).
 5. Public roads, bridges, and trails when no feasible alternative alignment is available. Facilities shall be designed such that the roadway prism and/or bridge structure will not be susceptible to damage from active erosion.
 6. Access to private development sites may be allowed to provide access to portions of the site that are not critical areas if there are no feasible alternative alignments. Alternative access shall

be pursued to the maximum extent feasible, including through the provisions of Chapter [8.24](#) RCW. Exceptions or deviations from technical standards for width or other dimensions and specific construction standards to minimize impacts may be specified.

7. Shoreline stabilization may be permitted when consistent with the shoreline stabilization regulations found in 23.40.190 (Shoreline Stabilization), regardless of whether the proposed project is within shoreline jurisdiction or not. ~~Stream bank stabilization and shoreline protection may be permitted subject to all of the following standards:~~
 - ~~a. Shoreline protection measures located within coastal or riverine erosion areas shall use soft armoring techniques (bioengineering erosion control measures as identified by the State Department of Ecology and the Department of Fish and Wildlife guidance) unless the applicant provides a geotechnical analysis demonstrating that bioengineering approaches will not adequately protect the property.~~
 - ~~b. The armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply from feeder bluffs.~~
 - ~~c. The armoring will not adversely affect critical areas including habitat conservation areas or mitigation will be provided to compensate for adverse effects where avoidance is not feasible.~~
 - ~~d. The proposal shall comply with WCC Title [23](#).~~
 - ~~e. Hard bank armoring is discouraged and may occur only when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by wave action or riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply.~~
 - ~~f. The erosion is not being caused by upland conditions, such as the removal of vegetation or human alteration of existing drainage.~~
 - ~~g. Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.~~
8. New residences shall be located outside of channel migration hazard areas or marine shoreline retreat areas. Accessory structures not involving human occupancy with a footprint equal to or less than 2,500 square feet shall be allowed; provided, that they are located at the outer edge of the migration zone as defined by this chapter; and provided, that the ~~technical administrator~~ Director may allow larger accessory structures where mitigating measures are feasible and provided for by the applicant.
9. New public flood protection measures and expansion of existing ones may be permitted, subject to WCC Title [17](#), Article 4 of this chapter, and a state hydraulic project approval; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection.
- B. Erosion Hazard Area Setbacks. In addition to the applicable general protective measures found in WCC [16.16.265](#), the ~~technical administrator~~ Director shall have the authority to require setbacks

from the edges of any coastal, stream, or riverine hazard erosion area in accordance with the following:

1. The size of the setback shall be based on the findings of a qualified professional and shall protect critical areas and processes and minimize the risk of property damage, death or injury resulting from erosion over the life of the development, typically identified as 100 years; provided, that the Director may require a minimum setback in accordance with International Building Codes adopted by Whatcom County.
2. The setback shall include the uphill area subject to potential erosion, the downhill area subject to potential deposition, and any area subject to landslide as a result of erosion.
3. The setback shall include woody vegetation adequate to stabilize the soil and prevent soil movement. If the designated setback area lacks adequate woody vegetation, the ~~technical administrator~~ Director shall have the authority to require vegetation enhancement or other measures to improve slope stability.
4. Developments on sites that are directly adjacent to a wetland or marine shoreline or other habitat conservation area as defined in Article 7 of this chapter may be subject to additional setback requirements and standards as set forth in the subsequent articles of this chapter.

16.16.365 Tsunami Hazard Areas – Use and Modification~~Standards.~~

The standards of WCC [16.16.320](#) shall apply. For development within tsunami hazard areas the proposed development shall be designed to provide protection from the tsunami hazard that meets the projected hazard on the Department of Natural Resources Tsunami Inundation Maps. For other low-lying coastal areas not included on the inundation maps, development shall be designed to provide protection for debris impact and an inundation as determined by current Department of Natural Resource modeling, unless other measures can be shown to provide equal or greater protection.

16.16.367 Seiche and Landslide Generated Wave Hazard Areas – Use and Modification~~Standards.~~

Standards for seiche and landslide generated wave hazards will only apply if the hazard area is mapped by the United States Geologic Survey or the Department of Natural Resources, Division of Geology and Earth Resources or other credible source approved by Whatcom County. If a mapped hazard is present, the standards of WCC [16.16.320](#) and [16.16.350](#) shall apply. For residential development within mapped seiche and landslide generated wave hazard areas, the proposed development ~~should~~ shall be designed to withstand the mapped hazard. If the risk of the event is less than 0.1% ~~percent~~ on a yearly basis, development standards may not be required, but notice on property title will be required.

16.16.370 Mine Hazard Areas – Use and Modification~~Standards.~~

The standards of WCC [16.16.320](#) and [16.16.350](#) shall apply.

16.16.375 Geologically Hazardous Areas – Review and Reporting Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration is, or may be, located within an active or potential geologically hazardous area, the ~~technical administrator~~ Director shall have the authority to require the submittal of a geological assessment report.

- B. A geologic hazards assessment report for a geologically hazardous area shall include a field investigation and contain an assessment of whether or not the type of potential geologic hazard identified is present or not present and if development of the site will increase the potential for landslides or erosion on or off the site. Geology hazard assessment reports shall be prepared, stamped, and signed by a qualified professional. The report should:
1. Be appropriate for the scale and scope of the project;
 2. Include a discussion of all geologically hazardous areas on the site and any geologically hazardous areas off site potentially impacted by or which could impact the proposed project. If the affected area extends beyond the subject property, the geology hazard assessment may utilize existing data sources pertaining to that area;
 3. Clearly state that the proposed project will not decrease slope stability or pose an unreasonable threat to persons or property either on or off site and provide a rationale as to those conclusions based on geologic conditions and interpretations specific to the project;
 4. Provide a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, and other adequate information to determine compliance with the requirements of this article;
 5. Provide conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties.
 - ~~5-6.~~ Geotechnical reports shall conform to accepted technical standards and ~~generally follow the~~ guidelines set forth in the Washington State Department of Licensing Guidelines for Preparing Engineering Geology Reports in Washington (2006). In some cases, such as when it is determined that no landslide or erosion risk is present, a full report may not be necessary to determine compliance with this article, and in those cases a stamped letter or abbreviated report may be provided;
 - ~~6-7.~~ If a landslide or erosion hazard is identified, provide minimum setback recommendations for avoiding the landslide or erosion hazard, recommendations on stormwater management and vegetation management and plantings, other recommendations for site development so that the frequency or magnitude of landsliding or erosion on or off the site is not altered, and recommendations are consistent with this article;
 - ~~7-8.~~ For projects in seismic hazard areas, the report shall also include a detailed engineering evaluation of expected ground displacements, amplified seismic shaking, or other liquefaction and/or dynamic settlement effects and proposed mitigation measures to ensure an acceptable level of risk for the proposed structure type or other development facilities such as access roads and utilities;
 - ~~8-9.~~ For projects in mine hazard areas, the report shall also include a description of historical data and remnant mine conditions, if available, dates of operation, years of abandonment, strength of overlying rock strata, and other information needed to assess stability of the site together with analysis of surface displacement or foundation stress from collapse of workings.

- C. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and site conditions affecting the site are unchanged. However, if any surface and subsurface conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.

Article 4. Frequently Flooded Areas

16.16.400 Purpose.

The purposes of this article are to:

- A. Reduce the risk to life and safety, public facilities, and public and private property that results from floods.
- B. Avoid or minimize impacts to fish and wildlife habitats that occur within frequently flooded areas.
- C. Protect and maintain the beneficial ecological functions and values of frequently flooded areas, including providing the necessary flow regime to form and maintain a full range of functional and accessible salmonid habitats both within and outside of frequently flooded areas.
- D. To ensure compliance with FEMA National Flood Insurance Program (NFIP) protection standards for critical habitats of species listed under the Endangered Species Act.
- E. In conjunction with the provisions of WCC Title 17, establish review procedures that provide an integrated approach to managing floodplain development and maintaining the capacity of the floodplain or floodway to convey and store flood waters.

16.16.410 Frequently Flooded Areas – Designation and Mapping—~~Frequently Flooded Areas.~~

- A. Frequently flooded areas are areas located along major rivers, streams, and coastal areas where the depth, velocity, intensity and frequency of flood water during major events present a risk to human life and property. Areas susceptible to these types of hazards are hereby designated as frequently flooded areas and subject to the provisions of this article.
- ~~B. The approximate location and extent of frequently flooded areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as new hazard areas are identified and as new information becomes available. This article does not imply that land outside mapped frequently flooded areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Whatcom County, any officer or employee thereof, or the Federal Insurance and Mitigation Administration (FIMA), for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.~~
- ~~C.~~ B. Frequently flooded areas shall include, but not be limited to:
 1. ~~Areas subject to a one percent recurrence interval of flood water inundation or a 100-year base flood~~ Special flood hazard areas as mapped on the current effective Federal Emergency Management Agency's Flood Insurance Rate Maps (FIRM). This includes coastal high hazard areas as defined by this chapter and as identified and designated on the FIRM maps as Zone VE or V; provided, that tsunami hazard areas are designated as geologically hazardous areas and subject to the provisions of Article 3 of this chapter.
 2. Other flood hazard areas identified by the County public works department based on review of historical data, high water marks, photographs of past flooding, or similar information from federal, state, county, or other valid sources when base flood elevation data from the Federal Insurance and Mitigation Administration has not been provided or is not accurate.

Comment [CES49]: Moved to 16.16.220

Comment [CES50]: FEMA definition added to definitions

16.16.420 Frequently Flooded Areas – General Standards.

- A. All development shall conform to the provisions of WCC Title [17](#), Flood Damage Prevention, and the applicable provisions of this chapter.
- B. Development within frequently flooded areas shall be allowed only when it is consistent with all of the following:
 - 1. FEMA’s National Flood Insurance Program (NFIP), including the protection standards for critical habitats for listed species;
 - 2. The mitigation sequence in WCC [16.16.260](#);
 - 3. Article 7, Habitat Conservation Areas, of this chapter;
 - 4. The applicable general protective measures found in WCC [16.16.265](#).
- C. The ~~technical administrator~~ Director shall have the authority to require a habitat assessment and, if necessary, a mitigation plan prepared by a qualified professional, in accordance with the FEMA Regional Guidance for the Puget Sound Basin, and mitigate for adverse impacts to the ecological functions of frequently flooded areas; provided, that such mitigation shall be consistent and compatible with the goal of protecting health and safety and minimizing risks to property.

16.16.430 Frequently Flooded Areas – Review and Report Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development is or may be located within a frequently flooded area, the County public works department’s river and flood division and/or the ~~technical administrator~~ Director shall have the authority to require a critical area assessment report.
- B. The public works department shall have primary responsibility for reviewing and approving proposed developments for consistency with WCC Title [17](#). The ~~technical administrator~~ Director shall review development proposals for consistency with the standards provided in this chapter. Either may place conditions for approval and/or require mitigation in accordance with this chapter.
- C. In addition to the requirements of WCC [16.16.255](#), critical areas assessment reports for frequently flooded areas shall:
 - 1. Identify any federally listed species and associated habitats, and demonstrate that no harm will occur to such species or habitats as a result of development (inclusive of mitigation) within frequently flooded areas.
 - 2. Address adverse impacts to ecological functions and processes, including riparian vegetation. Positive impacts may also be discussed.
 - 3. Include mitigation for adverse effects on frequently flooded areas’ ecological functions, where applicable.
- D. The ~~technical administrator~~ Director shall have the authority to modify the requirements of subsection C of this section when s/he determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development.
- E. The ~~technical administrator~~ Director shall have the authority to require additional information to that required in subsection C of this section that discloses and describes the effects of proposed development on frequently flooded area functions, including, but not limited to, impacts on: storage and conveyance of flood water; channel migration; peak flows and flow velocities; redd scour and displacement of rearing juvenile fish; sediment quality in streams; shear stress and bank erosion;

water quality; wildlife habitat; fish access; and nutrients cycling or other hyporheic functions that link surface and groundwater systems.

- F. Critical areas assessment report requirements may be waived for single-family developments and structures accessory to agricultural uses when the ~~technical administrator~~ Director and the Public Works department determine that the development does not meet the FEMA requirements for a habitat assessment in FEMA Regional Guidance for the Puget Sound Basin ~~no adverse impacts or risks to life, property, or ecological functions will occur.~~

Article 5. Critical Aquifer Recharge Areas

16.16.500 Purpose.

The purposes of this article are to:

- A. Preserve, protect, and conserve Whatcom County's groundwater resources and their functions and values for current and future generations by protecting critical aquifer recharge areas from contamination.
- B. Prevent adverse impacts on groundwater quantity by regulating development activities that could deplete aquifer storage, reduce groundwater levels, and/or diminish infiltration and replenishment of groundwater.
- C. Prioritize the management, protection, and conservation of groundwater recharge areas as sources of potable water supply.
- D. Establish review procedures for development activities that have the potential to adversely affect critical aquifer recharge areas.

16.16.510 ~~Critical Aquifer Recharge Areas – Designation, Classification and Mapping~~ ~~Critical Aquifer Recharge Areas.~~

- A. Critical aquifer recharge areas play a crucial role in supplying potable water (as defined by WAC [365-190-030\(2\)](#)). These recharge areas have geologic conditions that allow high infiltration rates, which contribute significantly to the replenishment of groundwater. These conditions also create a high potential for groundwater contamination. These areas are hereby designated as critical areas and subject to the provisions of this chapter.
- B. The approximate location and extent of critical aquifer recharge areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as recharge areas are identified and as new information becomes available.
- C. Critical aquifer recharge areas shall be designated and classified as follows:
 - 1. Low, Moderate, and High Susceptibility Aquifer Recharge Areas. Aquifer recharge areas susceptible to degradation or depletion because of hydrogeologic characteristics are those areas meeting the criteria established by the State Department of Ecology (Guidance Document for the Establishment of Critical Aquifer Recharge Area Ordinances, July 2000, Publication No. 97-30, Version 4.0).
 - 2. Wellhead Protection Areas. The area defined by the boundaries of the 10-year time of groundwater travel, in accordance with WAC [246-290-135](#). For purposes of this chapter, all wellhead protection areas shall be designated as highly susceptible critical aquifer recharge areas.
- D. If special groundwater management areas or susceptible groundwater management areas are established in Whatcom County in accordance with WAC [173-200-090](#) or [173-100-010](#), respectively, then these areas shall be incorporated into the highly susceptible aquifer designation.

16.16.520 Critical Aquifer Recharge Areas – General Standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#), all development in a critical aquifer recharge area shall meet the following standards:

- A. The proposed development will not cause contaminants to enter the aquifer and will not significantly affect the recharging of the aquifer in an adverse manner.
- B. The proposed development must comply with the water source protection requirements and recommendations of the Federal Environmental Protection Agency, State Department of Health, and the Whatcom County health department.
- C. The proposed development must be designed and constructed in accordance with the County stormwater management requirements or other applicable stormwater management standards (Whatcom County Development Standards Chapter 2, WCC Title [20](#)).

16.16.525 Critical Aquifer Recharge Areas – Use and Modification Activity Subject to Critical Areas Review.

The following development activities, when proposed in moderate and high susceptibility critical aquifer recharge areas, have the potential to adversely affect groundwater quality and/or quantity and shall require submittal of a critical areas assessment report as defined in WCC [16.16.255](#) and [16.16.535](#):

- A. Any development with an on-site domestic septic system at a gross density greater than one system per residence per acre.
- B. All storage tanks and storage facilities for hazardous substances and/or hazardous wastes; provided, that:
 1. The tanks must comply with Department of Ecology regulations contained in Chapters [173-360](#) and [173-303](#) WAC as well as International Building Code requirements;
 2. All new underground tanks and facilities shall be designed and constructed so as to prevent releases due to corrosion or structural failure for the operational life of the tank, or have a secondary containment system to prevent the release of any stored substances;
 3. All new aboveground storage tanks and facilities shall be designed and constructed so as to prevent the release of a hazardous substance to the ground, groundwaters, or surface waters by having primary and secondary containment.
- C. Vehicle repair, servicing and salvaging facilities; provided, that the facility must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. Dry wells shall not be allowed on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the State Department of Ecology prior to commencement of the proposed activity.
- D. Use of reclaimed wastewater must be in accordance with adopted water or sewer comprehensive plans that have been approved by the State Departments of Ecology and Health and the Whatcom County council per Chapter [57.16](#) RCW; provided, that:
 1. Surface spreading must meet the groundwater recharge criteria given in RCW [90.46.010](#)(10) and [90.46.080](#).

2. Direct injection must be in accordance with the standards developed by authority of RCW [90.46.042](#).

- E. Any other development activity that the ~~technical administrator~~ Director determines is likely to have a significant adverse impact on groundwater quality or quantity, or on the recharge of the aquifer. The determination must be made based on credible scientific information.
- F. Metals and hard rock mining and new sand and gravel mining subject to the provisions of the County's current mineral resource lands (MRL) review procedures in WCC Chapter [20.73](#); provided, that for new MRLs such activities shall be prohibited within the 10-year travel time zone of wellhead protection areas.

16.16.530 Critical Aquifer Recharge Areas – Prohibited Uses.

The following developments and uses are prohibited in critical aquifer recharge areas:

- A. New landfills, including hazardous or dangerous waste, municipal solid waste, special waste, wood waste of more than 2,000 cubic yards, and inert and demolition waste landfills.
- B. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells.
- C. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade).
- D. Facilities that store, process, or dispose of chemicals containing perchloroethylene (PCE) or methyl tertiary butyl ether (MTBE).
- E. Facilities that store, process, or dispose of radioactive substances.
- F. Other activities that the ~~technical administrator~~ Director determines would significantly degrade groundwater quality and/or reduce the recharge to aquifers currently, or potentially used as a potable water source, or that may serve as a significant source of base flow to a regulated stream. The determination must be made based on credible scientific information.

16.16.535 Critical Aquifer Recharge Areas – Review and Report Requirements.

- A. When County critical area maps or other sources of credible information indicate that the proposed development activities listed in WCC [16.16.525](#) occur within a critical aquifer recharge area, the ~~technical administrator~~ Director shall have the authority to require a critical area assessment report and to regulate developments accordingly. Critical areas assessment reports for aquifer recharge areas shall meet the requirements of WCC [16.16.255](#) and this section. Assessment reports shall include the following site- and proposal-related information unless the ~~technical administrator~~ Director determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:
 1. Available information regarding geologic and hydrogeologic characteristics of the site, including the surface location of all critical aquifer recharge areas located on site or immediately adjacent to the site, and permeability of the unsaturated zone;
 2. Groundwater depth, flow direction and gradient based on available information;
 3. Currently available data on wells and springs within 1,300 feet of the project area;
 4. The presence and approximate location of other critical areas, including surface waters, within 1,300 feet of the project area based on available data and maps;

5. Existing and available historic water quality data for the area to be affected by the proposed activity;
 6. Proposed best management practices;
 7. The effects of the proposed project on the groundwater quality and quantity, including:
 - a. Potential effects on stream flow, wetlands and/or other resources, and on ecosystem processes;
 - b. Predictive evaluation of groundwater withdrawal effects on nearby wells and surface water features; and
 - c. Predictive evaluation of contaminant transport based on potential releases to groundwater; and
 8. A spill plan that identifies equipment and/or structures that could fail, resulting in an impact. Spill plans shall include provisions for emergency response provisions as well as regular inspection, repair, and replacement of structures and equipment that could fail.
- B. If the applicant can demonstrate through a valid hydrogeological assessment that geologic and soil conditions underlying their property do not meet the criteria for low, moderate, or high susceptibility, the property shall not be considered a critical aquifer recharge area.

Article 5.5. Areas within the Rural Residential District of Lummi Island

16.16.540 Areas within the Rural Residential District of Lummi Island.

16.16.541 Exempt Wells.

Wells drilled as a replacement of an existing well are exempt from this article as long as the withdrawal rate is not increased by more than ~~20% percent~~ of the existing well. If baseline withdrawal rate information is not available, this must be established by a licensed well driller prior to well replacement.

16.16.542 Minimum Well Spacing for all New Wells.

Wells shall have a minimum of 200 feet distance between a new well and an existing operating well.

16.16.543 Requirements for Public Water System Wells, Non-Group B Two Party Wells, and Non-Domestic Wells.

In addition to the minimum well spacing, the following measures are required for public water system wells, non-Group B two party wells, and nondomestic wells. (Includes “public water system” wells and non-Group B two party wells as defined under Whatcom County drinking water regulations and nondomestic use wells pumping greater than 250 gpd. “Public water system” is defined under WCC Chapter [24.11](#) as any water system providing piped water for consumption, excluding a system serving only one single-family residence and any system with four or fewer connections serving only residences on the same farm. A “non-Group B two party well” is defined in WCC Chapter [24.11](#) as a water system using one well to serve two single-family residences for which the director of health has waived all public water system requirements.)

A. Chloride Monitoring and Testing.

1. Monitoring. Well owners shall collect and have water samples analyzed for chloride concentration twice annually, in April and August, and submitted to the Whatcom County health department.
2. Chloride Determinations for New Wells or Increased Pumping of Existing Wells. Applications for new wells, applications to convert an existing private well into a two party well, any application to expand the number of connections of a public water system, and nondomestic use wells proposing a greater than ~~20% percent~~ increase in groundwater withdrawals in an existing well re-quire a minimum 24-hour-duration pumping test at ~~100% percent~~ of the proposed average daily demand, at the end of which a water sample will be collected for analysis of chloride concentration. Subdivisions using individual wells are required to test wells simultaneously or, alternatively, have a licensed hydrogeologist evaluate well interference and water quality changes. Subdivision wells shall remain accessible for future testing in the event of subdivision expansion.
3. Restrictions on New Wells or Increased Pumping of Existing Wells. New wells cannot be permitted, existing private wells cannot be converted to two party wells, existing public water systems cannot expand beyond their existing number of approved connections, and nondomestic wells cannot increase pumping rates greater than ~~20% percent~~ if chloride concentrations measured at the end of the test specified in subsection (A)(2) of this section are

greater than 100 mg/L. For systems expanding ~~20%-percent~~ or less within one year, the highest chloride determination within the past year in subsection (A)(1) of this section cannot be greater than 100 mg/L.

4. Limit on Water Use by Existing Wells. Any increase (0 to ~~20%-percent~~) in water use will not be permitted if either semiannual analysis in the previous 12-month period indicates greater than 100 mg/L chloride concentration. If the semi-annual chloride determinations have not been submitted as required, then the pump testing requirement of subsection (A)(2) of this section shall apply.
5. Prior to 10 days before the pumping test, all property owners within 1,000 feet of the well location shall be notified by first class mail informing them of the test and providing contact information of the person responsible for the testing.

B. Arsenic Monitoring and Testing in the Unconsolidated Aquifer.

1. The following monitoring and testing is required unless the well is determined not to be located in the unconsolidated sandstone aquifer. A Washington State licensed hydrogeologist must make the determination in a submitted report.
2. Arsenic Determinations for New Wells or Increased Pumping of Existing Wells. Applications for new wells, applications to convert an existing private well into a two party well, any application to expand the number of connections of a public water system, and nondomestic use wells proposing a greater than ~~20%-percent~~ increase in groundwater withdrawals in an existing well require a minimum 24-hour-duration pumping test at ~~100%-percent~~ of the proposed average daily demand, at the end of which a water sample will be collected for analysis of arsenic concentration.
3. Restrictions on New Wells or Increased Pumping of Existing Wells. New wells cannot be permitted, existing private wells cannot be converted to two party wells, existing public water systems cannot expand beyond their existing number of approved connections, and nondomestic wells cannot increase pumping rates greater than ~~20%-percent~~ if arsenic concentrations measured at the end of the test specified in subsection (B)(2) of this section are greater than 10 µg/L.
4. Limit on Water Use by Existing Wells. Any increase (0 to ~~20%-percent~~) in water use will not be permitted if the most recent arsenic determination indicated greater than 10 µg/L arsenic concentration. If no arsenic concentration has been determined in the past three years, the pumping test requirement in subsection (B)(2) of this section shall apply.
5. Prior to 10 days before the pumping test, all property owners within 1,000 feet of the well location shall be notified by first class mail informing them of the test and providing contact information of the person responsible for the testing.

16.16.544 Administrative Waiver.

Administrative waivers may be granted to any section of these requirements by petition to the administering agency. Waiver request must demonstrate that the project is consistent with the intent of these requirements; no health hazard would result from this action; and must be stamped by a licensed Washington State hydrogeologist.

Article 6. Wetlands

16.16.600 Purpose.

The purposes of this article are to:

- A. Recognize and protect the beneficial functions, values, and services performed by wetlands, which include, but are not limited to, providing food, breeding, nesting and/or rearing habitat for fish and wildlife; recharging and discharging groundwater; contributing to stream flow during low flow periods; stabilizing stream banks and shorelines; storing storm and flood waters to reduce flooding and erosion; and improving water quality through biofiltration, adsorption, retention and transformation of sediments, nutrients, and toxicants.
- B. Regulate land use to avoid adverse effects on wetlands and maintain the functions, services, and values of freshwater and estuarine wetlands throughout Whatcom County.
- C. Establish review procedures for development proposals in and adjacent to wetlands.
- D. Establish minimum standards for identifying and delineating wetlands.

16.16.610 Wetlands – Designation, Rating, and Mapping.

- A. Wetlands shall be delineated in accordance with the requirements of RCW [36.70A.175](#). Unless otherwise provided for in this chapter, all areas within the county determined to be wetlands in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual, 1987 Edition, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0), 2010 or as revised, are hereby designated critical areas and are subject to the provisions of this article.
- B. The approximate location and extent of wetlands are shown on the County's critical area maps. ~~However, this information has come from multiple sources over many years' time and is not precise, only general. Thus, these maps are to be used as a guide and do not provide a definitive critical area designation; a property-specific assessment is necessary for that to determine the wetland boundary. The County shall update the maps as new wetlands are identified and as new information becomes available.~~
- C. Wetlands shall be rated based on categories that reflect the functions and values of each wetland. Wetland categories shall be based on the criteria provided in the Washington State Wetland Rating System for Western Washington, revised 2014, and as amended thereafter, as determined using the appropriate rating forms and associated figures contained in that publication. These categories are generally defined as follows:
 - 1. Category I. Category I wetlands are: (a) relatively undisturbed estuarine wetlands larger than one acre; (b) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (c) bogs; (d) mature and old-growth forested wetlands larger than one acre; (e) wetlands in coastal lagoons; (f) interdunal wetlands that score eight or nine habitat points and are larger than one acre; and (g) wetlands that perform many functions well (scoring 23 points or more). These wetlands: (a) represent unique or rare wetland types; (b) are more sensitive to disturbance than most wetlands; (c) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (d) provide a high level of functions.

Comment [CES51]: Deleted sections moved to 16.16.220 Identification of critical areas

2. Category II. Category II wetlands are: (a) estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; (b) interdunal wetlands larger than one acre or those found in a mosaic of wetlands; or (c) wetlands with a moderately high level of functions (scoring between 20 and 22 points).
3. Category III. Category III wetlands are: (a) wetlands with a moderate level of functions (scoring between 16 and 19 points); (b) can often be adequately replaced with a well-planned mitigation project; and (c) interdunal wetlands between 0.1 and one acre. Wetlands scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
4. Category IV. Category IV wetlands have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed. These are wetlands that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.

16.16.612 Exceptions to Regulation.

- A. All wetlands shall be regulated regardless of size; provided, that the following wetlands may be exempt from the requirement to avoid impacts (WCC 16.16.225 General Regulations), and they may be filled if the impacts are fully mitigated based on the remaining actions in WCC 16.16.260 (General Mitigation Requirements). In order to verify the following conditions, a critical area report for wetlands meeting the requirements in WCC 16.16.255 (Critical Areas Assessment Reports) must be submitted. ~~hydrologically isolated Category IV wetlands less than 1,000 square feet in size may be adversely impacted when all of the following criteria are met:~~
 1. All isolated Category IV wetlands less than 4,000 square feet that:
 - a. Are not associated with riparian areas or their buffers;
 - b. Are not associated with shorelines of the state or their associated buffers;
 - c. Are not part of a wetland mosaic;
 - d. Do not score 5 or more points for habitat function based on the 2014 update to the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication #14-06-029, or as revised and approved by Ecology);
 - e. Do not contain a Priority Habitat or a Priority Area for a Priority Species identified by the Washington Department of Fish and Wildlife, do not contain federally listed species or their critical habitat, or species of local importance identified in WCC 16.16.710 (Habitat Conservation Areas – Designation, Mapping, and Classification).
 2. Wetlands less than 1,000 square feet that meet the above criteria and do not contain federally listed species or their critical habitat are exempt from the buffer provisions contained in this Chapter.
 1. ~~The wetland does not provide significant suitable breeding habitat for native amphibian species. Suitable breeding habitat may be indicated by adequate and stable seasonal inundation, presence of thin-stemmed emergent vegetation, and clean water;~~

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2. ~~The wetland does not have unique characteristics that would be difficult to replace through standard compensatory mitigation practices;~~
3. ~~The wetland is not located within a habitat conservation area, as defined in WCC 16.16.710, or buffer;~~
4. ~~The wetland is not located within a floodplain and/or not associated with a shoreline of the state as defined by the County's shoreline master program (WCC Title 23);~~
5. ~~The wetland is not part of a mosaic of wetlands and uplands. This criterion shall be determined using the guidance provided in Ecology's Wetland Rating System for Western Washington (Publication No. 14-06-029); and~~
6. ~~The wetland is not identified as locally significant by a local watershed plan prepared pursuant to Chapter 400-12 WAC.~~

Comment [CES52]: Updated, using language from DOE Wetland Guidance for CAO Updates, Western Washington Version, 2016

16.16.620 Wetlands – ~~Use and Modification~~**general standards.**

The following uses and modifications ~~activities~~ may be permitted in wetlands and/or wetland buffers as specified when, pursuant to WCC 16.16.255, 16.16.260, and 16.16.630, all reasonable measures have been taken to avoid adverse effects on wetland functions and values as documented through an alternatives analysis, the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose, and ~~compensatory~~ mitigation is provided for all adverse impacts to wetlands and their buffers that cannot be avoided:

A. **Reasonable Use.** Developments that meet the reasonable use ~~exception or variance~~ standards as set forth in WCC 16.16.270 and 16.16.273, respectively.

B. **Utilities.**

1. **Utility lines** in Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers when no feasible conveyance alternative is available shall be designed and constructed to minimize physical, hydrologic, and ecological impacts to the wetland, and meet all of the following:
 - a. The utility line is located as far from the wetland edge and/or buffer as possible and in a manner that minimizes disturbance of soils and vegetation.
 - b. Clearing, grading, and excavation activities are limited to the minimum necessary to install the utility line and the area is restored following utility installation.
 - c. Buried utility lines shall be constructed in a manner that prevents adverse impacts to surface and subsurface drainage. This may include regrading to the approximate original contour or the use of trench plugs or other devices as needed to maintain hydrology.
 - d. Best management practices are used in maintaining said utility corridors such that maintenance activities do not expand the corridor further into the critical area.
 - ~~d-e.~~ The least impactful construction or installation method is used as demonstrated through an alternatives analysis.
2. **On-site sewage disposal systems (OSS)** may be permitted in wetland buffers when accessory to an approved single-family residence ~~residential structure~~ when:
 - a. ~~When it~~ is not feasible to connect to a public sanitary sewer system; and
 - b. It is located as far as possible from the wetland; and

- c. ~~When it~~ is operated and maintained in accordance with WCC 24.05.160; provided, that adverse effects on water quality are avoided.

B.C. Public Roads or Bridges. New or expanded public roads or bridges in Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers when no feasible alternative alignment is available and the road or bridge is designed and constructed to minimize physical, hydrologic, and ecological impacts to the wetland, including placement on elevated structures as an alternative to fill, where feasible.

D. Private Access. Access to private development sites may be permitted to cross Category II, III, or IV wetlands or their buffers, provided the access meets the following:

1. For direct wetland fill, there are no feasible alternative alignments. **Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.**
2. Design and construction methods ~~there are no feasible alternative alignments and measures are taken to~~ maintain preconstruction hydrologic connectivity across the access road or driveway. **Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.**
3. The access is designed to cause the least impact to the wetland and/or its buffer (which may ~~require the applicant to apply for an~~ Exceptions or deviations from the technical Development Standards) ~~for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.~~
- ~~1-4. Access is not achievable through the administrative provisions of WCC 16.16.640 (Wetland Buffer Modification).~~

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D.E. Agricultural Uses ~~as follows:~~

1. Construction of an appurtenant structure that is associated with a primary agricultural use; or the reconstruction, remodeling, or maintenance of such structures in wetland buffers, subject to all of the following specific criteria:
 1. The structure is located within an existing lot of record and is an ongoing agricultural use.
 2. There is no other feasible location with less impact to critical areas.
 3. Clearing and grading activity and impervious surfaces are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.
2. Ongoing agricultural activities, subject to the following:
 - a. The activities are conducted in accordance with all applicable provisions of this chapter and WCC Title 17; or
 - b. The agricultural activity is in compliance with the Conservation Program on Agricultural Lands (CPAL) as described in Article 8 of this chapter.

E.F. Domestic wells serving single-family developments (including plats, short plats, and individual single-family residences) and necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, in wetland buffers when all of the following conditions are met:

1. There is no viable alternative to the well site outside of the buffer and the well is located as far back from the wetland edge as is feasible;
2. The well is more than 75 feet deep; and
3. Any impacts to the wetland and buffer from staging equipment and the well-drilling process are mitigated.

F.G. Stormwater Management Facilities.

1. Stormwater management facilities, limited to detention/retention/treatment ponds, media filtration facilities, and lagoons or infiltration basins, or bioretention cells (engineered or rain gardens) may be permitted within the outer ~~50% percent~~ of a Category II, III or IV wetland buffer; provided, that:
 - a. Construction of the stormwater facility does not displace or impact a forested buffer;
 - b. The width of the buffer between the stormwater facility and the wetland edge is not less than the low intensity land use buffer standards in WCC [16.16.630](#);
 - c. There is no other feasible location for the stormwater facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;
 - d. The stormwater facility is designed to mimic and resemble natural wetlands and meets applicable county or state stormwater management standards and the discharge water meets state water quality standards; and
 - e. Low impact development approaches have been implemented to the maximum extent feasible per the Department of Ecology stormwater manual.
2. Surface water or stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted within a Category III or IV wetland buffer on a case-by-case basis when the ~~technical administrator~~ Director determines that all of the following are met:
 - a. Due to topographic or other physical constraints, there are no feasible alternative locations for these facilities in the outer buffer area or outside the buffer.
 - b. The discharge is located as far from the wetland edge and/or buffer as possible and in a manner that minimizes disturbance of soils and vegetation.
 - c. The discharge outlet is designed to prevent erosion and promote infiltration.
 - d. The dispersion outfall is within the outer ~~25% percent~~ of the buffer, unless a closer location is demonstrated to be the only feasible location. Alternative locations shall be the maximum distance from the wetland to alleviate the site constraint.
3. Phosphorus-reducing BMP structures approved and installed through the homeowners' improvement program (or as may be renamed) within the Lake Whatcom watershed to treat runoff from existing development may be permitted within the outer ~~50% percent~~ of a Category II, III or IV wetland buffer.

G.H. Recreation. Passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails; provided, that all of the following criteria are met:

1. There is no other feasible alternative route with less impact on the critical area.

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2. The trail minimizes erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as wood recruitment and natural wildlife movement patterns.

~~3.~~ Private trails shall not exceed ~~six~~ four feet in width, and public trails shall not exceed 10 feet in width, though some portions may be wider to meet the requirements of the Americans with Disabilities Act.

~~4.~~ They shall be made of pervious material or elevated where feasible.

~~5.~~ They shall be designed to avoid removal of significant trees.

6. Trails may include limited viewing platforms that shall not exceed eight feet in width and shall be made of pervious materials where feasible.

~~7.~~ When located in the buffer, they should be located in the outer 25% percent of the buffer, except, that public trails may be permitted closer to the wetland when necessary to provide wetland educational opportunities or for public health and safety; provided, that when closer than the outer 25%, the trail width is the minimum necessary for the trail class.

~~8.~~ They shall be constructed and maintained in a manner that minimizes disturbance of the buffer and associated critical areas.

~~9.~~ If they must cross a wetland, they shall be elevated, constructed to minimize supports, and be the minimum size necessary to accommodate the level of service.

~~H. Single family developments may be permitted to encroach into wetland buffers subject to the technical administrator's approval; provided, that all of the criteria in WCC 16.16.270(B) (Reasonable Use) are met.~~

Comment [CES53]: Added per Scoping Document item #13c to give County Parks flexibility to increase public awareness and stewardship of critical areas.

Comment [CES54]: Not needed. 16.16.270 would apply to any type of development and is covered by (A)

16.16.630 Wetland Buffers widths.

To protect the integrity, functions, and values of wetlands, the technical administrator Director shall have the authority to require buffers from the edges of all wetlands, including reestablished or created wetlands, (in addition to the building setback required by WCC 16.16.265(DA)(1)) in accordance with the following:

A. Wetland buffers shall be established to protect the integrity, functions and values of the wetland.

Wetland buffers shall be measured horizontally from a perpendicular line established by the wetland boundary based on the base buffer width identified in Table 1.

~~A-B. Wetland B~~ buffers shall not include areas that are functionally and effectively disconnected from the wetland by an existing, legally established road or other that are functionally and effectively disconnected from the wetland by an of existing, legally established road or other substantially developed surface.

Comment [P/C55]: P/C moved to retain existing text. Passed 4-3

~~B-C.~~ The wetland buffer standards required by this Article presume the existence of a dense, multi-storied native vegetation community in the buffer adequate to protect the wetland functions and values. When a buffer lacks adequate vegetation, the technical administrator Director may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

~~C-D.~~ The standard wetland buffer shall be based on a combination wetland category, habitat function score (from the wetland rating form), and land use intensity. The intensity of the land use shall be determined in accordance with the definitions found in Article 9 of this chapter unless the technical

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~~administrator~~ Director determines that a lesser level of impact is appropriate based on information provided by the applicant demonstrating that the proposed land use will have a lesser impact on the wetland than that contemplated under the buffer standard otherwise appropriate for the land use, as specified in WCC 16.16.640.

~~D.E.~~ Standard buffer widths are shown in Table 1. However, for Category I or II wetlands with “special characteristics” as determined and defined through the Washington State Department of Ecology (2014) Wetland Rating System (including estuarine, coastal lagoons, wetlands of high conservation value, bogs, forested, and interdunal wetlands), only buffers in the highest habitat score (8 to 9) group are applied.

Table 1. Standard Wetland Buffer Widths

Wetland Category	Habitat Function Score	Land Use Intensity*		
		High Buffer Width (feet)	Moderate Buffer Width (feet)	Low Buffer Width (feet)
Category I				
	8 – 9	300	225	150
	5-6 – 7	150	110	75
	<3 – 5	100	75	50
Category II				
	8 – 9	275 <u>300</u>	150 <u>225</u>	100 <u>150</u>
	5-6 – 7	150	110	75
	3 – <5	80 <u>100</u>	60 <u>75</u>	50
Category III				
	8 – 9	150 <u>300</u>	110 <u>225</u>	75 <u>150</u>
	5-6 – 7	150	100 <u>110</u>	60 <u>75</u>
	3 – <5	80	60	50 <u>40</u>
Category IV				
	8-3 – <5 <u>9</u>	50	40	25

* Definitions for high, moderate, and low intensity land use are provided in Article 9 of this chapter.

16.16.640 Wetland Buffer Modification.

Buffer widths may be increased, decreased, or averaged in accordance with the following provisions, which provide flexible approaches to maximize both ecological functions and allowed uses. All mitigation proposed shall be consistent with State and this Chapter.

A. **Buffer Width Increasing.** The Director may require the standard buffer width to be increased by the distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas for one of the following:

1. To protect the function and value of that wetland including, but not limited to, compensating for a poorly vegetated buffer or a buffer that has a steep slope (greater than 30% percent); or
2. To prevent windthrow damage; or

Comment [CES56]: Amending wetland buffer widths and habitat function score thresholds to make them consistent with the Department of Ecology’s most recent 2018 guidance. We have been notified by the DOE that though the Critical Areas Ordinance was only updated a few years ago, our wetland buffer widths and habitat function score thresholds do not meet their current guidance, and that they would be reviewing our SMP update to ensure we updated these during this process (linked because our CAO is a part of our SMP, see above). While many of the buffer widths would increase, the change in the habitat function score thresholds would place fewer wetlands in the higher buffer categories. Staff has worked with the local wetland consultants over the past year to analyze what differences this would make for most property owners, and based on data received from them it appears to be awash for the most common types of wetlands.

Comment [CES57]: Combined 16.16.640, 650, & 660 into better language from Skagit County

3. To protect wetlands or other critical areas from landslides, erosion or other hazards.

Comment [CES58]: Moved from 16.16.660

4. To maintain viable populations of existing species listed by the Federal or State government as endangered, threatened or sensitive; or

5. When a Category I or II wetland is located within 300 feet of:

- a. Another Category I, II or III wetland; or
- b. A fish and wildlife HCA; or
- c. A Type S or F stream; or
- d. A high impact land use that is likely to have additional impacts.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect wetland and habitat functions. If the wetland contains variations in sensitivity, increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the wetland.

B. Buffer Width Averaging. Buffer width averaging allows limited reductions of buffer width in specified locations while requiring increases in others. The widths of buffers may be averaged if this will improve the protection of wetland functions.

1. Averaging of required buffer widths will be allowed only if the applicant demonstrates that all of the following criteria are met:

- a. The area of the buffer proposed for averaging has not been reduced pursuant to subsection (C). Buffer averaging is not allowed if the buffer has been reduced.
- b. Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and
- c. Averaging width will not adversely impact the wetland functions and values; and
- d. The wetland has significant differences in characteristics that affect its habitat functions; and
- e. The total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
- f. The buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion; and
- g. The buffer width of a Category I, II, or III wetland shall not be reduced below 75% of the standard buffer width.

2. Averaging of required buffer widths will be allowed for the following when the dimensional standards of subsection (B)(1) are met:

- a. To protect a natural feature (e.g., a stand of trees or snags) that otherwise would fall outside of the standard buffer.
- b. To provide connections with adjacent habitats or to address those situations where pre-existing development has reduced a buffer area to a width less than the required standard.

In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.

Comment [CES59]: Based on public comments, staff has amended this section to better meet DOE Guidance.

C. **Buffer Width Reduction.** The Director shall have the authority to reduce the standard buffer widths identified in WCC 16.16.630 (Wetland Buffers) as follows:

1. The buffers of moderate and low impact land use projects may be reduced when all of the following apply:

- a. The area of the buffer proposed for reduction has not been averaged pursuant to subsection (B). Buffer reduction is not allowed if the buffer has been averaged.
- b. The applicant demonstrates buffer averaging is not feasible.
- c. The buffer shall not be reduced to less than 75% of the required buffer.
- d. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in WCC 16.16.260 (General Mitigation Requirements).
- e. To minimize impacts and provide equivalent functions and values as required by this section, the Director may require any or all of the following:
 - i. The use of alternative on-site wastewater systems in order to minimize site clearing, where appropriate;
 - ii. Using low impact development (LID) and LID best management practices where appropriate;
 - iii. ~~In order to offset habitat loss from buffer reduction, retaining existing native vegetation on other portions of the site equal to no more than the area impacted.~~
- f. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;
- g. All buffer reduction impacts are mitigated and result in equal or greater protection of the wetland functions and values. This includes enhancement of existing degraded buffer area and provide mitigation for the disturbed buffer area.

2. High impact land use projects may apply moderate land use intensity buffers when:

- a. For wetlands that score 3-5 habitat points, all applicable impact reduction measures from the following list are implemented (from Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Appendix 8C (as updated in 2018):
 - i. Directing lights away from the wetland and buffer.
 - ii. Locating activities that generate noise away from the wetland and buffer.
 - iii. Routing all new, untreated runoff away from wetland while ensuring wetland is not dewatered.
 - iv. Establishing covenants limiting use of pesticides within 150 feet of wetland.
 - v. Applying integrated pest management.
 - vi. Retrofitting stormwater detention and treatment for roads and existing adjacent development.
 - vii. Preventing channelized flow from lawns that directly enters the buffer.
 - viii. Infiltrating or treating, detaining, and dispersing into the buffer new runoff from impervious surfaces and new lawns.
 - ix. Posting signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the County.
 - x. Using privacy fencing.

Comment [CES60]: Section amended to be consistent with DOE guidance (Wetlands in Washington State, Volume 2, Appendix 8C, updated 2018 and Guide for Developing CAOs, 2016)

Comment [CES61]: Based on public comments, staff has amended this section to better meet DOE Guidance.

Comment [P/C62]: P/C motion to strike. Carries 7-1-1

- xi. Planting with dense native vegetation appropriate for the County to delineate buffer edge and to discourage disturbance.
- xii. Using low impact development (LID) and LID best management practices where appropriate.
- xiii. Establishing a permanent conservation easement or tract to protect the wetland and the associated buffer.
- xiv. Using best management practices to control dust.

Comment [CES63]: Moved from the old 16.16.640

b. For wetlands that score 6 points or more for habitat function:

- i. All applicable impact reduction measures of subsection (C)(2)(a) are implemented, and;
- ii. A relatively undisturbed, vegetated corridor at least 100 feet wide between the wetland and any other Priority Habitats is protected pursuant to WCC 16.16.260(I) (General Mitigation Requirements – Permanent Protection). If no option for providing such a corridor is available, then only subsection (i) applies.

3. In all circumstances when the buffer between the area of reduction and the wetland is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.

Comment [P/C64]: P/C Motion to approve. Carries 9-0

4. Any person who alters or proposes to alter regulated wetlands shall reestablish, create, rehabilitate, or enhance (or a combination thereof) areas of wetland in order to compensate for wetland losses at the ratios described in mitigation ratios for projects in Western Washington in Table 8C-11 (as updated in 2014) in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Section 8C.2.3.

D. **Buffer Width Variance.** Standard buffer widths may be reduced by more than 25% through a variance pursuant to WCC 16.16.273 (Variances); provided, that buffer averaging beyond that allowed in subsection (B) is prohibited.

~~16.16.640 Wetland buffer reduction.~~

~~The technical administrator shall have the authority to reduce the standard buffer widths identified in WCC 16.16.630; provided, that the general standards for avoidance and minimization per WCC 16.16.260(A)(1)(a) and (b) shall apply; and provided further, that all of the following apply:~~

- ~~A. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;~~
- ~~B. The buffer of a Category I, II, or III wetland shall not be reduced to less than 75 percent of the required buffer or 50 feet, whichever is greater;~~
- ~~C. The buffer of a Category IV wetland shall not be reduced to less than 50 percent of the required buffer, or 25 feet, whichever is greater;~~
- ~~D. The applicant implements all reasonable measures to minimize the adverse effects of adjacent land uses and ensure no net loss of buffer functions and values. Such measures may include, but are not limited to, the following:~~

- ~~1. Direct lights away from the wetland and buffer.~~
- ~~2.1 Locate activities that generate noise away from the wetland and buffer.~~
- ~~3.1 Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered.~~
- ~~4.1 Establish covenants limiting use of pesticides within 150 feet of wetland.~~

- ~~5.1. Apply integrated pest management.~~
- ~~6.1. Retrofit stormwater detention and treatment for roads and existing adjacent development.~~
- ~~7.1. Prevent channelized flow from lawns that directly enters the buffer.~~
- ~~8.1. Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.~~
- ~~9.1. Post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the County.~~
- ~~10.1. Use privacy fencing.~~
- ~~11.1. Plant with dense native vegetation appropriate for the County to delineate buffer edge and to discourage disturbance.~~
- ~~12.1. Use low impact development (LID) and LID best management practices where appropriate.~~
- ~~13.1. Establish a permanent conservation easement or tract to protect the wetland and the associated buffer.~~
- ~~14.1. Use best management practices to control dust.~~

16.16.650 Wetland buffer averaging.

The technical administrator shall have the authority to average wetland buffer widths on a case-by-case basis; provided, that the general standards for avoidance and minimization per WCC ~~16.16.260~~(A)(1)(a) and (b) shall apply, and when all of the following criteria are met:

- A. The buffer averaging does not reduce the functions or values of the wetland;
- B. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer, and all increases in buffer dimension for averaging must be generally parallel to the wetland boundary to avoid creating buffer “panhandles” unless it constitutes a wildlife corridor;
- C. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;
- D. The minimum buffer width of a Category I, II, or III wetland shall not be less than 75 percent of the widths established under WCC ~~16.16.630~~, or 50 feet, whichever is greater;
- E. The minimum buffer width of a Category IV wetland shall not be less than 50 percent of the widths established under WCC ~~16.16.630~~, or 25 feet, whichever is greater; and
- F. The buffer has not been reduced in accordance with WCC ~~16.16.640~~. Buffer averaging is not allowed if the buffer has been reduced.

16.16.660 Wetland buffer increases.

The technical administrator shall have the authority to increase the width of the standard buffer width on a case-by-case basis when there is sound evidence that a larger buffer is required by an approved habitat management plan as outlined in WCC ~~16.16.750~~, or such increase is necessary to:

- ~~A. Protect the function and value of that wetland including, but not limited to, compensating for a poorly vegetated buffer or a buffer that has a steep slope (greater than 30 percent); or~~
- ~~B. A. Prevent windthrow damage; or~~
- ~~C. A. Maintain viable populations of species such as herons and other priority fish and wildlife; or~~

~~D.A. — Protect wetlands or other critical areas from landslides, erosion or other hazards.~~

16.16.670 Wetlands – Review and Reporting Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration may contain wetland indicators, ~~contain~~ or abut wetlands or wetland buffers, the ~~technical administrator~~ Director may require a site evaluation (reconnaissance) or critical area assessment report by a qualified professional to determine whether or not a regulated wetland is present and, if so, its relative location in relation to the proposed project area or site. If no regulated wetlands are present, then wetland review will be considered complete.
- B. If the ~~technical administrator~~ Director determines that a wetland indicator is more likely than not present, ~~is~~ he ~~technical administrator~~ shall require a wetland assessment report pursuant to WCC [16.16.255](#) and sub-sections C and D of this section.
- C. A wetland assessment is an element of a critical area assessment report that describes the characteristics of the subject property and adjacent areas. The wetland assessment shall include the occurrence, distribution, delineation, and determination of the wetland category and standard wetland buffers as set forth in WCC [16.16.630](#), and may include analysis of historical aerial photos, and review of public records.
- D. A wetland assessment shall include the following site- and proposal-related information unless the ~~technical administrator~~ Director determines that any portion of these requirements is already required by Article 2, or unnecessary given the scope and/or scale of the proposed development:
1. Location information (legal description, parcel number, and address);
 2. A vicinity map;
 3. A site plan that includes scale and wetlands and associated buffers and proposed development if appropriate;
 4. A qualitative written assessment and accompanying maps of wetlands and buffers within 300 feet of the site and an estimate of the existing acreage for each. For on-site wetlands, the assessment shall include the dominant and subdominant plant species; soil type, color and texture; sources of hydrology (patterns of surface and subsurface water movement, precipitation, etc.); topography; and other pertinent information. The assessment of off-site wetlands shall be based on available information and shall not require accessing off-site properties;
 5. Wetland Analysis. An analysis of all wetlands and buffers (to the extent they can be legally accessed) including, at a minimum, the following information:
 - a. Wetland delineation conducted by a qualified professional and completed in accordance with WCC [16.16.610](#)(A).
 - b. The wetland boundary shall be marked in the field (with flagging left in the field for Whatcom County verification and placed high enough to allow line of sight with vegetation growth) and surveyed using a methodology appropriate to scale of development. The surveyed wetlands areas shall be mapped showing location and size of all wetlands.

Methodology used shall be in the report with description of equipment (specs), accuracy, and pertinent description of how the coordinates were gathered.

- c. Determination of each wetland size.
 - d. Description of each wetland class and category.
 - e. Description of overall water sources and drainage patterns on site. Include all streams and drainages (Type S, F, Np, or Ns streams), shorelines, floodplains, flood-prone areas.
 - f. Description of vegetation, hydrologic conditions, and soil and substrate conditions.
 - g. Description of wildlife and habitat. Include all critical habitat for threatened and endangered species within 300 feet of the development footprint.
 - h. Topographic elevation, at two-foot contours provided by Whatcom County PDS for single-family proposals.
 - i. Functional assessment of the wetland and adjacent buffer using a local or state agency-recognized method and including the reference of the method and all data sheets.
 - j. Standard buffer requirements for each wetland. Copies of the wetland rating forms and associated figures from the Ecology Wetland Rating System for Western Washington, as amended.
- E. For single-family building permits, the applicant may hire a qualified professional to prepare the assessment report or may request that the County assess the regulated wetland(s) and buffers and determine the impacts associated with the project, subject to the following:
1. ~~Availability of Field investigation by~~ County staff shall be at the discretion of the ~~technical administrator~~ Director and subject to workload and scheduling constraints.
 2. Fees for County staff services shall be in accordance with the unified fee schedule.
- F. If a regulated wetland buffer from a neighboring property extends onto a proposed development site for which review under this chapter is required, the ~~technical administrator~~ Director shall have the authority to require that deterrent devices be placed at the edge of the buffer in accordance with WCC [16.16.265](#). The applicant shall provide ~~written~~ documentation that no buffer encroachment will occur. The documentation shall be on a form provided by the Department ~~in the form of a letter or similar affidavit~~.

16.16.680 Wetlands – Mitigation Standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#), activities that adversely affect wetlands and/or wetland buffers shall include mitigation sufficient to achieve no net loss of wetland function and values in accordance with WCC [16.16.260](#) and this section.

- A. In determining the extent and type of mitigation required, the ~~technical administrator~~ Director may consider all of the following when applicable:
1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;
 2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;
 3. Observed or predicted trends regarding the gains or losses of specific wetland types in the watershed, in light of natural and human processes;

4. The likely success of the proposed mitigation measures;
5. Effects of the mitigation actions on neighboring properties; and
6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a watershed plan prepared pursuant to Chapter 400-12 WAC, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement, a fully authorized mitigation bank (WCC 16.16.263), or an in-lieu-fee program.

~~Compensatory mitigation shall be provided on site or off site in the location that will provide the greatest ecological benefit and have the greatest likelihood of success; provided, that mitigation occurs as close as possible to the impact area and within the same watershed as the permitted alteration. This provision may be waived upon demonstration through a watershed- or landscape-based analysis that mitigation within an alternative sub-basin of the same basin would have the greatest ecological benefit and the greatest likelihood of success; provided, that limiting functions shall not be removed from sensitive watersheds identified in WCC Title 20. Mitigation shall occur within WRIA 1 or 3.~~

~~All mitigation areas shall be protected and managed to prevent degradation and ensure permanent protection of critical area functions and values. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC 16.16.265.~~

~~Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~

Comment [CES65]: Now covered in 16.16.260

B. Type of Mitigation.

1. **Wetland Alterations.** Compensatory mitigation projects shall restore, create, rehabilitate, enhance, and/or preserve equivalent wetland functions and values pursuant to no net loss of function and area. Compensation for wetland alterations shall occur in the following order of preference:
 - a. Reestablishing (also referred to as restoring) wetlands on upland sites that were formerly wetlands.
 - b. Creating wetlands on disturbed upland sites such as those consisting primarily of nonnative, invasive plant species.
 - c. Rehabilitation of existing wetlands for the purposes of repairing or restoring natural and/or historic hydrologic functions.
 - d. Enhancing existing significantly degraded wetlands.
 - e. Preserving Category I or II wetlands that are under imminent threat; provided, that preservation shall only be allowed in combination with other forms of mitigation and when

the ~~technical administrator~~ Director determines that the overall mitigation package fully replaces the functions and values lost due to development.

2. **Buffer Alterations.** Compensatory mitigation for buffer impacts:

- a. Shall be consistent with WCC [16.16.630](#) through [16.16.660](#); and
- b. May include enhancement of degraded buffers by planting native species, removing structures and impervious surfaces within buffers, and other measures to achieve equivalent or greater buffer functions.

C. Mitigation Ratios.

1. ~~Compensation for wetland buffer impacts shall occur at a minimum 1:1 ratio on an area basis.~~ Compensatory mitigation for wetland alterations shall be based on the wetland category and the type of mitigation activity proposed. The replacement ratio shall be determined according to the ratios provided in Table 2; provided, that the replacement ratio for preservation shall be 10 times the ratio for reestablishment or creation. The created, reestablished, rehabilitated, or enhanced wetland area shall, at a minimum, provide a level of function equivalent to the wetland being altered and shall be located in an appropriate landscape setting.
2. The mitigation ratios noted in Table 2 shall not apply to mitigation banks as defined by this chapter. Credit and debit procedures for mitigation banks shall be determined in accordance with the mitigation banking provisions outlined in WCC [16.16.263](#).
3. The ~~technical administrator~~ Director shall have the authority to adjust the ~~replacement~~ mitigation ratios in Table 2 when one or more of the following apply:
 - a. When a combination of mitigation approaches is proposed. In such cases, the area of altered wetland shall be replaced at a 1:1 ratio through reestablishment or creation, and the remainder of the area needed to meet the ratio can be replaced by enhancement or rehabilitation using Table 2.
 - b. When the project proponent has a demonstrated ability, based on past performance, to successfully design, construct, monitor and maintain wetland mitigation projects/sites.
 - c. When use of the guidance for Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington (Department of Ecology Publication No. 10-06-011, as amended) results in a lower mitigation ratio than the standard ratios.
4. For permanent impacts to wetland buffers, unless the Director approves a habitat management plan with different ratios, mitigation shall be provided at the following ratios:
 - a. Where the mitigation is in place and functional before the impact occurs (i.e., advanced mitigation), at a ratio determined by the functions, values, and goals of an advanced mitigation plan.
 - b. Where the mitigation is in place and functional before within 1 year of the impacts occur occurring (i.e., advanced mitigation), at a 1:1 ratio (area or function); and
 - c. Where the mitigation is placed after 1 year of the impact occurs occurring, at a 1.25:1 ratio (area or function); and
 - d. For retroactive permits the Director may require the ratio to be up to shall be double the ratio in subsection (c) above.

Comment [P/C66]: P/C motion to amend as shown. Passes 7-0

Planning Commission Approved Draft with DOE Required & Recommended Edits

SMP Update – WCC Ch. 16.16 Amendments

October 29, 2021

Table 2. Compensatory Mitigation Ratios for Projects in Western Washington¹

Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only	Reestablishment or Creation (R/C) and Rehabilitation (RH)	Reestablishment or Creation (R/C) and Enhancement (E)	Enhancement Only
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
All other Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I	No alteration allowed unless an essential public facility				

(Ratios indicate mitigation area to area disturbed.)

~~D. Reestablished or created wetlands established pursuant to these mitigation provisions shall have adequate buffers to ensure their protection. The buffer shall be based on the category of the reestablished, created, rehabilitated, enhanced, or preserved wetland.~~

~~E. A. Compensatory mitigation shall be provided on-site or off-site in the location that will provide the greatest ecological benefit and have the greatest likelihood of success; provided, that mitigation occurs as close as possible to the impact area and within the same watershed as the permitted alteration. This provision may be waived upon demonstration through a watershed- or landscape-based analysis that mitigation within an alternative sub-basin of the same basin would have the greatest ecological benefit and the greatest likelihood of success; provided, that limiting functions shall not be removed from sensitive watersheds identified in WCC Title 20. Mitigation shall occur within WRIA 1 or 3.~~

~~F. A. All mitigation areas shall be protected and managed to prevent degradation and ensure permanent protection of critical area functions and values. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC 16.16.265.~~

~~G. A. Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~

16.16.690 Wetland Compensatory Wetland Mitigation Plan.

A. In addition to meeting the requirements of WCC 16.16.260(B), a ~~compensatory~~ mitigation plan for wetland and wetland buffer impacts shall meet the following:

¹ From Wetlands in Washington, Volume 2, Appendix 8C, Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System, Table 8C-11.

1. Provide an analysis of existing wetland functions and values and a detailed description of the effects of the proposed development on wetland and buffer function and value, including the area of direct wetland disturbance, area of buffer disturbance, area of buffer reduction, and area of buffer averaging, including documentation that the functions and values will be increased through reduction or average; effects of stormwater management; proposed hydrologic alteration including changes to natural drainage or infiltration patterns; effects on fish and wildlife species and their habitats; clearing and grading impacts; temporary construction impacts; and effects of increased noise, light, and human intrusion.
2. The plan shall be based on applicable portions of the Washington State Department of Ecology's Guidelines for Developing Freshwater Wetland Mitigation Plans and Proposals, 2004, or other appropriate guidance document that is consistent with best available science.
3. The plan shall contain sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall include:
 - a. The rationale for site selection;
 - b. General goals of the plan, including wetland function, value, and acreage;
 - c. Description of baseline (existing) site conditions including topography, vegetation, soils, hydrology, habitat features (e.g., snags), surrounding land use, and other pertinent information;
 - d. Field data confirming the presence of adequate hydrology (surface and/or groundwater) to support existing and ~~compensatory-mitigated~~ wetland area(s);
 - e. Nature of mitigation activities, including area of restored, created, enhanced, rehabilitated and preserved wetland, by wetland type;
 - f. Detailed grading and planting plans showing proposed post-construction topography; general hydrologic patterns; spacing and distribution of plant species; size and type of proposed planting stock; watering or irrigation plans; and other pertinent information;
 - g. ~~To facilitate establishment of a stable community of native plants,~~ A description of site treatment measures including removal of noxious weeds and/or invasive species ~~removal~~, use of mulch and fertilizer, placement of erosion and sediment control devices, and best management practices that will be used to protect existing wetlands and desirable vegetation;
 - g-h. A demonstration that the site will have adequate buffers sufficient to permanently protect the wetland functions.
- B. All ~~compensatory~~ mitigation projects shall be monitored in accordance with WCC 16.16.260(C) for a period necessary to establish that performance standards have been met. The ~~technical administrator~~ Director shall have the authority to extend the monitoring period for up to 10 years and require additional monitoring reports when any of the following conditions apply:
 1. The project does not meet the performance standards identified in the mitigation plan.
 2. The project does not provide adequate replacement for the functions and values of the impacted critical area.

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3. The project involves establishment of forested plant communities, which require longer time for establishment.
- C. Reports shall be submitted annually for the first three years following construction and at the completion of years five, seven and 10 if applicable to document milestones, successes, problems, and contingency actions of the ~~compensatory~~ mitigation.

Article 7. Fish & Wildlife Habitat Conservation Areas (HCA)

16.16.700 Purpose.

The purposes of this article are to:

- A. Protect, restore, and maintain native fish and wildlife populations by protecting and conserving fish and wildlife habitat and protecting the ecological processes, functions and values, and biodiversity that sustain these resources.
- B. Protect marine shorelines, valuable terrestrial habitats, lakes, ponds, rivers, and streams and their associated riparian areas, and the ecosystem processes on which these areas depend.
- C. Regulate development so that isolated populations of species are not created and habitat degradation and fragmentation are minimized.
- D. Maintain the natural geographic distribution, connectivity, and quality of fish and wildlife habitat and ensure no net loss of such important habitats, including cumulative impacts.

16.16.710 Habitat Conservation Areas – Designation, Mapping, and Classification.

A. Habitat conservation areas, as defined in Article 9 of this chapter, are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the county meeting these criteria are hereby designated critical areas and are subject to the provisions of this article.

B. The approximate location and extent of identified fish, wildlife, and sensitive plant habitat areas are shown on the County's critical area maps as well as state and federal maps. ~~However, these maps are to be used as a guide and do not provide a definitive critical area determination; each applicant is responsible for having a property-specific determination assessment is necessary to determine the extent of the HCA made pursuant to Article 2 of this chapter. The County shall update the maps as new habitat conservation areas are identified and/or more comprehensive information on function, condition, cover type, and resolution is developed.~~

C. Habitat conservation areas shall include all of the following:

1. ~~Surface Waters of the State~~Streams.

- a. All ~~waterbodies streams which that~~ meet the criteria for Type S, F, Np, or Ns waters as set forth in WAC [222-16-030](#) of the Washington Department of Natural Resources' (DNR) Water Typing System, as now or hereafter amended.
 - i. Type S ~~streams waters~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(1) as now or hereafter amended, as a Type S water and are inventoried as "shorelines of the state" under the Shoreline Management Master Program for Whatcom County, pursuant to Chapter [90.58](#) RCW. Type S waters contain salmonid fish habitat.
 - ii. Type F ~~waters streams~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(2) as now or hereafter amended, as Type F water. Type F streams contain habitat for salmonid fish, game fish and other anadromous fish.

Comment [CES67]: Covered by 16.16.220

- iii. Type Np ~~waters streams~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(3) as now or hereafter amended, as Type Np water. Type Np waters do not contain fish habitat.
- iv. Type Ns ~~waters streams~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(4) as now or hereafter amended, as a Type Ns water. These streams are areas of perennial or intermittent seepage, ponds, and drainage ways having short periods of spring or storm runoff. Type Ns waters do not contain fish.
- 2. Ditches or other artificial watercourses are considered streams for the purposes of this chapter when:
 - a. Used to convey natural streams existing prior to human alteration; and/or
 - b. The waterway is used by anadromous or resident salmonid or other resident fish populations; or
 - c. Flows directly into shellfish habitat conservation areas.
- 3. Areas in which federally listed species are found, have a primary association with, or contain suitable or federally defined critical habitat for said listed species, as listed in the U.S. Fish and Wildlife's Threatened and Endangered Species List or Critical Habitat List (<http://ecos.fws.gov/ecp/>) or the National Marine Fisheries Service (NMFS) (<https://www.fisheries.noaa.gov/species-directory/threatened-endangered>), as amended.
- 4. Areas in which state-listed priority species are found, have a primary association with, or contain suitable habitat for said listed species, as listed in the Washington Department of Fish and Wildlife's Priority Habitats and Species List, (<http://wdfw.wa.gov/mapping/phs/> or <http://wdfw.wa.gov/conservation/phs/list/>), as amended.
- 5. State priority habitats and areas associated with state priority species as listed in Washington Department of Fish and Wildlife's Priority Habitats and Species List (<http://wdfw.wa.gov/mapping/phs/> or <http://wdfw.wa.gov/conservation/phs/list/>), as amended.
- 6. Areas in which state-listed rare plant species are found, or contain suitable habitat for said listed species, as listed in the Department of Natural Resources' Natural Heritage Program (<http://www1.dnr.wa.gov/nhp/refdesk/plants.html>), as amended.
- 7. Areas in which state-listed saltwater critical areas are found, as listed in WAC [173-26-221](#)(2)(c)(iii).
- 8. Areas in which state-listed freshwater critical areas are found, as listed in WAC 173-26-221(2)(c)(iv).
- ~~8-9.~~ Naturally occurring ~~ponds~~ or manmade ponds and lakes under 20 acres in size and created prior to September 30, 2005, excluding agricultural, fire protection, and stormwater facilities.
- ~~9-10.~~ All other waters defined as wWaters of the state, including marine waters.
- ~~10-11.~~ Natural area preserves, aquatic reserves, and natural resource conservation areas as defined by the Washington Department of Natural Resources.

Comment [P/C68]: Reinserted by the P/C 7-0-2-0.

Comment [RE69]: This is covered by Type S or Type F, Np, Ns water types

- ~~11-12.~~ 12-12. Portions of the San Juan Islands National Monument within Whatcom County (including Chuckanut Rock, tip of Eliza Island, Eliza Island Rocks, Lummi Rocks, Baker's Reef, Carter Point, Carter Point Rock, and Seal Rock at the north end of Lummi Island, and subsequently designated areas).
- ~~12-13.~~ 12-13. Frequently flooded areas that are subject to the Federal Emergency Management Agency's National Flood Insurance Program Biological Opinion (FEMA BiOp).
- ~~13-14.~~ 13-14. Species and Habitats of Local Importance. Locally important species and habitats that have recreational, cultural, and/or economic value to citizens of Whatcom County, including the following:
- a. Species. The Department of Planning and Development Services shall maintain a current list of species of local importance as designated by the County Council.
 - b. Habitats.
 - i. The marine nearshore habitat, including coastal lagoons, and the associated vegetated marine riparian zone. These areas support productive eelgrass beds, marine algal turf, and kelp beds that provide habitat for numerous priority fish and wildlife species including, but not limited to, forage fish, seabird and shorebird foraging and nesting sites, and harbor seal pupping and haulout sites. This designation applies to the area from the extreme low tide limit to the upper limits of the shoreline jurisdiction; provided, that reaches of the marine shoreline that were lawfully developed for commercial and industrial uses prior to the original adoption of this chapter may be excluded from this designation, but not otherwise exempt from this chapter.
 - ii. The Chuckanut wildlife corridor, which extends east from Chuckanut Bay and adjacent marine waters, including Chuckanut Mountain, Lookout Mountain, the northern portions of Anderson Mountain, and Stewart Mountain continuing along the southern Whatcom County border to Mount Baker/Snoqualmie National Forest boundary. This area represents the last remaining place in the Puget Trough where the natural land cover of the Cascades continues to the shore of Puget Sound.
 - iii. The Department of Planning and Development Services shall maintain a current list and map of habitats of local importance, as designated by the County Council.
- D. In addition to the species, habitats, and wildlife corridors identified in subsection (C)(12) of this section, the Council may designate additional species, habitats of local importance, and/or wildlife corridors as follows:
1. In order to nominate an area, species, or corridor to the category of "locally important," an individual or organization must:
 - a. Demonstrate a need for special consideration based on:
 - i. Identified species of declining population;
 - ii. Documented species sensitive to habitat manipulation and cumulative loss;
 - iii. Commercial, recreational, cultural, biological, or other special value; or
 - iv. Maintenance of connectivity between habitat areas;
 - b. Propose relevant management strategies considered effective and within the scope of this chapter;

- c. Identify effects on property ownership and use; and
- d. Provide a map showing the species or habitat location(s).
2. Submitted proposals shall be reviewed by the County and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.
3. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter and the various goals and objectives of the Whatcom County comprehensive plan and the Growth Management Act, the County Council will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats, species, or corridors and will be subject to the provisions of this chapter.
4. The Council may remove species, habitats, or corridors from this list if it can be shown that there is no longer a need to provide protection beyond that afforded by WDFW management strategies. Species and habitats of local importance that are not regulated elsewhere in this chapter may be removed if sufficient evidence has been provided by qualified professionals that demonstrates that the species no longer meets any provisions of subsection (D)(1)(a) of this section.

16.16.720 Habitat Conservation Areas – General standards Use and Modification.

The following activities may be permitted in habitat conservation areas and/or their buffers when, pursuant to WCC Chapter 16.16 (Critical Areas), ~~255 and 16.16.260,~~ all reasonable measures have been taken to avoid adverse effects on species and habitats, any applicable Washington Department of Fish and Wildlife management recommendations have been applied, mitigation is provided for all adverse impacts that cannot be avoided, and the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose; provided, that locally important species and habitats shall be subject to WCC 16.16.730-710(C)(12):

A. **Reasonable Use.** Developments that meet the reasonable use ~~and~~ or variance standards set forth in WCC 16.16.270 and 16.16.273, respectively.

B. Utilities.

1. ~~New~~ **Utility lines** and facilities may be permitted when all of the following criteria are met:
 - a. The least impactful construction or installation methodology is used as demonstrated through an alternatives analysis.
 - ~~a-b.~~ Impacts to fish and wildlife habitat and/or corridors shall be avoided to the maximum extent possible.
 - ~~b-c.~~ Where feasible, installation shall be accomplished by boring beneath the scour depth of the stream or waterbody and the width of the channel migration zone where present.
 - ~~c-d.~~ Trenching of utilities across a stream channel shall be conducted as perpendicular to the channel centerline as possible whenever boring under the channel is not feasible. Utilities shall be installed below potential scour depth regardless of method.
 - ~~d-e.~~ Crossings shall be contained within the footprint of an existing road or utility crossing where possible.

Comment [CES70]: Note: The order of the existing text has been changed to match that in 16.16.620, though not shown in track changes as it would become too confusing.

e-f. The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.

2. On-site sewage disposal systems (OSS) may be permitted in FWHCA buffers when accessory to an approved single-family residence when:

a. It is not feasible to connect to a public sanitary sewer system; and

b. It is located as far as possible from the FWHCA buffer; and

~~a-c. It is operated and maintained in accordance with WCC 24.05.160; provided, that adverse effects on water quality are avoided, may be permitted in nonaquatic HCA buffers and in the outer 50 percent of streams or other aquatic HCA buffers when accessory to an approved residential structure for which there are no alternatives and when it is not feasible to connect to a public sanitary sewer system and when operated and maintained in accordance with WCC Chapter 24.05; provided, that adverse effects on water quality and slope stability are avoided.~~

2.3. Domestic wells serving single-family developments (including plats, short plats, and individual single-family residences) and necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, in HCA buffers when all of the following conditions are met:

- a. There is no viable alternative to the well site outside of the buffer and the well is located as far back from the wetland edge as is feasible;
- b. Any impacts to the HCA buffer from staging equipment and the well-drilling process are mitigated.

B-C. Stream crossings, provided they meet all the following criteria:

1. The stream crossing is for an allowed use.

~~1-2.~~ There is no other feasible alternative route with less impact on critical areas.

2-3. The crossing minimizes interruption of natural processes such as channel migration, the downstream movement of wood and gravel, and the movement of all fish and wildlife. Bridges are preferred for all stream crossings and should be designed to maintain the existing stream substrate and gradient, span the bankfull width, or be proven to not have an appreciable increase in backwater elevation at a minimum of a 100-year event and provide adequate vertical clearance for debris likely to be encountered at high water.

3-4. Culverts shall be designed according to applicable state and federal guidance criteria for fish passage as identified in Water Crossing Design Guidelines, WDFW 2013, as amended, and/or the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000 (and subsequent revisions), and in accordance with a state hydraulic project approval. The applicant or property owner shall maintain fish passage through the bridge or culvert.

4-5. The County may require that existing culverts be removed, replaced, or fish passage barrier status corrected as a condition of approval if the culvert is detrimental to fish passage or water quality.

5-6. Roadway widths at culvert crossings shall be limited to the minimum width necessary to accommodate the roadway's classification. Culvert length shall be the minimum that is compatible with the roadway width.

Comment [JPS71]: Guidelines also indicate relocation is an acceptable solution and may provide ecological lift if relocation is back to original stream bed location.

~~6.7.~~ Shared common crossings are the preferred approach where multiple properties can be accessed by one crossing.

D. **Private Access.** Access to private development sites may be permitted to cross ~~habitat conservation areas~~ FWHCAs and their buffers ~~if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW. Exceptions or deviations from technical standards may be considered by the technical administrator on a case-by-case basis where the resulting outcome reduces overall impacts to any identified critical area.~~

1. ~~If there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.~~
2. ~~The access is designed to cause the least impact to the habitat conservation area and/or its buffer (which may require the applicant to apply for an exception or deviation from the Development Standards)~~

~~7.3.~~ Access is not achievable through the administrative provisions of WCC 16.16.740 (Buffer Modification).

Comment [CES72]: Reworded for clarity

C.E. Agricultural Uses. Construction or improvements, other than ~~a~~ buildings, that are associated with an agricultural use in the outer 25% ~~percent~~ of the CPAL designated buffer; or the reconstruction, remodeling, or maintenance of such structures in a habitat conservation area buffer, subject to all of the following criteria:

1. The structure is located within an existing lot of record and is an ongoing agricultural use.
2. There is no other feasible location with less impact to critical areas. However, this provision does not apply to the reconstruction, maintenance and/or remodeling of preexisting structures.
3. Clearing and grading activity and impervious surfaces are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.
4. Unavoidable adverse effects on critical areas are mitigated in accordance with this chapter.

F. **Stormwater Management Facilities.**

~~D.1.~~ Stormwater management facilities limited to detention/retention/treatment ponds, media filtration, lagoons and infiltration basins may be permitted in a stream buffer, subject to all of the following standards:

- ~~1.a.~~ The facility is located in the outer 50% ~~percent~~ of the standard stream buffer and does not displace or impact a forested riparian community;
- ~~2.b.~~ There is no other feasible location for the stormwater facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;
- ~~3.c.~~ The stormwater facility meets applicable county or state stormwater management standards and the discharge water meets state water quality standards; and
- ~~4.d.~~ Low impact development approaches have been considered and implemented to the maximum extent feasible.

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~~E.2.~~ Stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted in a habitat conservation area buffer on a case-by-case basis when the ~~technical administrator~~ Director determines that all of the following are met:

~~1.a.~~ Due to topographic or other physical constraints, there are no feasible locations for these facilities outside the buffer;

~~2.b.~~ The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation, except on shoreline slopes where location shall be determined by site characteristics to minimize adverse impacts;

~~3.c.~~ The discharge outlet is designed to prevent erosion and promote infiltration;

~~4.d.~~ The discharge meets freshwater and marine state water quality standards, including the need to evaluate cumulative impacts to 303(d) impaired water bodies and total maximum daily load (TMDL) standards as appropriate at the point of discharge. Standards should include filtration through mechanical or biological means, vegetation retention, timely reseeding of disturbed areas, use of grass-lined bioswales for drainage, and other mechanisms as appropriate within approved stormwater “special districts”; and

~~5.e.~~ The discharge outlet is designed to exclude fish from entering or migrating into stormwater conveyance systems.

~~6.3.~~ Phosphorus-reducing BMP structures approved and installed through the homeowners’ improvement program (or as may be renamed) within the Lake Whatcom watershed to treat runoff from existing development may be permitted within fish and wildlife habitat conservation area buffers, provided that they are located the maximum feasible distance from the ordinary high water mark ~~25 feet of the lake shoreline.~~

G. Recreation.

~~F.1.~~ Trails. Construction of trails ~~and roadways~~ may be permitted in a habitat conservation area buffer when not directly related to a crossing and are subject to all of the following standards:

~~1.a.~~ There is no other feasible alternative route with less impact on the critical area.

~~2.b.~~ The ~~road or~~ trail minimizes erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as channel migration, wood recruitment and natural wildlife movement patterns.

~~3.c.~~ Private trails shall not exceed four feet in width, and public trails shall not exceed 10 feet in width, though some portions may be wider to meet the requirements of the Americans with Disabilities Act.

~~d.~~ ~~and They~~ shall be made of pervious material or ~~on an elevated structure~~ where feasible.

~~e.~~ They shall be designed to avoid removal of significant trees.

~~a.f.~~ Trails may include limited viewing platforms that shall not exceed eight feet in width and shall be made of pervious materials where feasible.

~~4.g.~~ The ~~road or~~ trail through riparian (stream) buffer shall be located in the outer 25% ~~percent~~ of the standard buffer, unless necessary to provide educational opportunities.

~~5.h.~~ The ~~road or~~ trail is constructed and maintained in a manner that minimizes disturbance of the buffer and associated critical areas.

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Comment [CES73]: Amended per Scoping Document item #13c

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G-2. Marinas and Launch Ramps. Construction, reconstruction, repair, and maintenance of marinas and launch ramps may be permitted when consistent with the regulations found in WCC 23.40.060 (Marinas and Launch Ramps), regardless of whether the proposed project is within shoreline jurisdiction or not.

H-3. Docks. Construction, ~~of docks and public launching ramps,~~ and reconstruction, repair, and maintenance of docks ~~and public or private launching ramps~~ may be permitted when consistent with the Army Corps of Engineers' Regional General Permit 6 (Structures in Inland Marine Waters of Washington State) and the regulations found in WCC 23.40.150 (Mooring Structures), regardless of whether or not the proposed project is within shoreline jurisdiction. ~~subject to the following:~~

1. ~~The dock or ramp is located and oriented and constructed in a manner that minimizes adverse effects on navigation, wave action, water quality, movement of aquatic and terrestrial life, ecological processes, critical saltwater habitats, wetlands, or other critical areas.~~
2. ~~Docks or ramps on shorelines of the state shall comply with WCC Title 23 and state hydraulic project approval requirements.~~
3. ~~Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.~~
4. ~~No net loss to habitat conservation areas or associated wetlands will occur.~~
5. ~~No net loss of juvenile fish migration corridors will occur.~~
6. ~~No net loss of intertidal or riparian habitat function will occur.~~

4. **Accessory Uses Structures.** When located in the shoreline jurisdiction, residential water-oriented recreational accessory structures—such as a boat equipment storage shed, an small uncovered boat storage rack, a fire pit, and a pathway leading to the shoreline—may be permitted in an HCA buffer; provided,

- a. Such structures are located as far from the shoreline as feasible and on previously-impacted buffer areas;
- b. The maximum area, inclusive of existing lawfully-established accessory structures, ~~They~~ shall be limited to 10% of the buffer's area or 500 square feet, whichever is less;
- c. No more than 20% of the linear length of shoreline is occupied by a building or structure;
- d. Individual structures shall be limited to a total footprint area of 100-square feet and 10-feet in height; and
- e. The shoreline is 75% or at ratios outlined in WCC 16.16.760, whichever is greater, planted (or replanted) with native vegetation to a minimum depth of 15 feet landward from the ordinary high water mark.
- f. This provision shall not apply to residential developments authorized using the constrained lot provisions of WCC 23.40.150(B).

H-4. Relocation of streams, or portions of streams, when there is no other feasible alternative and when the relocation will result in equal or better habitat and water quality and quantity, and will not diminish the flow capacity of the stream or other natural stream processes; provided, that the

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Comment [CES74]: Policy Change. This section allows for some recreational uses at the water's edge while meeting no net loss.

Comment [DOE-Req75]: Required Changes – These changes are required for consistency with the SMP Guidelines governing principle that SMP regulations must be designed to achieve no net loss of ecological functions (WAC 173-26-186(8)). The changes add appropriate sideboards to allow a limited and predictable list of common residential developments that may be located within regulated buffers. The changes include more emphasis on the required mitigation sequence including avoidance, minimization and mitigation of impacts to buffers [WAC 173-26-201(2)(e)]

relocation meets state Hydraulic Project Approval requirements and that relocation of shoreline streams shall be prohibited unless the relocation has been identified formally by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement or identified in watershed planning documents prepared and adopted pursuant to Chapter [90.82](#) RCW, the WRIA 1 Salmonid Recovery Plan, or the WRIA 1 Watershed Management Board Habitat Project List, or the County's Shoreline Restoration Plan.

J. Clearing and grading, when allowed as part of an authorized activity or as otherwise allowed in these standards, may be permitted; provided, that the following shall apply:

1. Grading is allowed only during the designated dry season, which is typically regarded as May to October of each year; provided, that the County may extend or shorten the designated dry season on a case-by-case basis, based on actual weather conditions. Special scrutiny shall be given to Lakes Samish, Padden, and Whatcom watersheds, and water resource special management areas as described in WCC [20.80.735](#).
2. Appropriate erosion and sediment control measures shall be used at all times, consistent with best management practices in the Department of Ecology's Stormwater Management Manual for Western Washington. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be salvaged and/or redistributed to other areas of the site. Areas shall be revegetated as needed to stabilize the site.
3. The moisture-holding and infiltration capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all are-as of the project area not covered by impervious surfaces.

K. Shoreline Streambank Stabilization and shoreline protection may be permitted when consistent with the shoreline stabilization regulations found in 23.40.190 (Shoreline Stabilization), regardless of whether the proposed project is within shoreline jurisdiction or not. ~~subject to all of the following standards:~~

- ~~1. The stabilization or protection measures shall be designed in accordance with the techniques contained within the Washington Department of Fish and Wildlife's most recent Integrated Streambank Protection Guidelines. Deviation from these techniques requires written justification from a qualified professional/engineer.~~
- ~~2. Natural shoreline processes will be maintained to the maximum extent practicable.~~
- ~~3. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.~~
- ~~4. Stream and shoreline protection and launching ramps on shorelines of the state shall comply with WCC Title [22](#) and with state hydraulic project approval requirements.~~
- ~~5. No net loss to habitat conservation areas or associated wetlands will occur.~~
- ~~6. No net loss of juvenile fish migration corridors will occur.~~
- ~~7. No net loss of intertidal or riparian habitat function will occur.~~
- ~~8. Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not practicable or not sufficient.~~

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9. ~~Stabilization is achieved through bioengineering or soft armoring techniques in accordance with an applicable hydraulic permit approval issued by the Washington State Department of Fish and Wildlife.~~

10. ~~Hard bank armoring is discouraged and may occur only when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by wave action or riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply. An objective alternatives analysis, addressing upstream and downstream impacts, shall be conducted to demonstrate that there is no other less environmentally damaging alternative to the more impacting proposed action.~~

11. ~~Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not a demonstration of need.~~

12. ~~The bank stabilization or shore protection will not adversely affect habitat conservation areas or mitigation will be provided to compensate for adverse effects where avoidance is not feasible.~~

~~L.K.~~ **New Public Flood Protection Measures** and expansion of existing ones may be permitted, subject to WCC Title [17](#), Article 4 of this chapter and a state hydraulic project approval; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection.

~~L.~~ **In-stream structures** such as, but not limited to, high-flow bypasses, dams, and weirs, shall be allowed only as part of a watershed restoration project as defined pursuant to WCC ~~Title [23.410](#)~~ [23.410](#) or identified in watershed planning documents prepared and adopted under Chapter [90.82](#) RCW, the salmonid recovery plan or watershed management board habitat project list, and the County's shoreline restoration plan and upon acquisition of any required state or federal permits. The structure shall be designed to avoid adverse effects on stream flow, water quality, or other habitat functions and values.

~~M.~~ ~~Single family developments may be permitted to encroach into stream buffers subject to the technical administrator's approval; provided, that all of the criteria in WCC [16.16.270\(B\)](#) are met.~~

~~N.M.~~ All other development may be allowed in shellfish protection districts outside of actual shellfish habitats with a valid ~~development project~~ permit and when the requirements of subsection O of this section are met.

~~O.N.~~ Alteration or removal of **beaver-built structures** more than two years old; provided, that:

1. The property owner can show that the beaver dam is harming or likely to harm his or her property.
2. It has been demonstrated that beaver deceivers or auto leveler devices cannot appropriately resolve ponding/backwatering that is negatively affecting adjacent land or property.
3. Impacts to wetland, river, or stream functions are minimized and mitigation is provided to compensate for lost ecological value.
4. The property owner obtains an HPA from WDFW prior to initiating alteration or removal of the beaver-built structure.
5. The property owner provides a copy of the HPA to the ~~technical administrator~~ Director.

Comment [CES76]: Not needed. 16.16.270 would apply to any type of development and is covered by (A)

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P-O. On Eliza Island, applicants shall complete the U.S. Fish and Wildlife Service (USFWS) self-assessment (<https://www.fws.gov/pacific/eagle/>) to determine whether a USFWS bald eagle permit is needed and, if so, apply for one. Development activities near bald eagle habitat shall be carried out consistent with the National Bald Eagle Guidelines.

P. **Timber Removal.**

1. To allow for greater flexibility in a development proposal when an application has been submitted for a Conversion Option Harvest Plan (COHP) or a Class IV General FPA, an applicant has the opportunity to remove timber within the standard buffers if the applicant's mitigation measures incorporate all of the performance standards based upon water type listed in Table 3. In conformance with professional standards used by the Washington Department of Natural Resources for forest practices in sensitive areas, all removal of timber within HCA buffers shall be subject to conditions specified by the Director in conjunction with an on-site technical team review in which participation by representatives of the proponent, Ecology, WDFW, WDNR and natural resource representatives of affected Indian tribes is solicited.
2. The intent of this section is to provide an additional opportunity for an applicant to propose some level of timber removal within the riparian habitat zone, as long as it can be demonstrated that the function of the buffer can be maintained at the levels described below. If the buffer, in its current state, cannot meet these standards, then the Director will not be able to give its approval for any activity which would inhibit recovery of or degrade the current buffer.
3. The current performance of a given buffer area is compared to its potential performance as rated by the Soil Conservation Service's most recent Soil Survey of Whatcom County. In consultation with a representative from the Natural Resource Conservation Service, Soil Conservation District, or professional forester, the applicant will determine the capability of the site for woodland management, using the most suitable tree species according to the soil survey, and establish the stand characteristics that would be expected from a mature stand of those species established on site:
4. If the current stand can exceed the riparian protection that could be expected based on site potential, then additional activity may be allowed provided the following performance standards can be met. For Type S streams, an alternative method may be utilized to allow limited timber harvest within the outer 100 feet of a buffer:

Comment [CES77]: Borrowed from Skagit County, this section would allow timber harvesting to occur w/in buffers while still retaining the HCA's functions. This is aimed at closing a loophole wherein applicants remove timber before applying for a development permit, which is when the CAO becomes applicable (the CAO is not applicable to forest practices except for Class IV Conversions).

Table 3. Performance-Based Riparian Standards*

Watertype	Performance Standards
Type S	<p>Maintain 95% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</p> <p>Maintain 85% of the trees which are greater than 24 inches DBH within 100 feet of the water(s); and</p> <p>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</p> <p>The applicant may further request some limited timber harvest of up to 30% of the merchantable timber within the outer 100 feet of any 200-foot required buffer provided</p>

<u>Watertype</u>	<u>Performance Standards</u>
	<p>the harvest:</p> <p>(a) Does not reduce the LWD and canopy requirements; and</p> <p>(b) The applicant will increase the total buffer size by 50 feet to mitigate for the limited timber harvest in the required buffer to provide additional wildlife habitat. The additional 50-foot buffer shall retain a minimum of 50% of the total number of trees with 25% of the total trees left having a diameter at breast height (DBH—4-1/2 feet) greater than 12 inches; and</p> <p>(c) No more than 50% of the dominant trees in the outer 100 feet may be harvested.</p>
<u>Type F</u>	<p>Maintain 85% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</p> <p>Maintain 85% of the trees which are greater than 18 inches DBH within 100 feet of the water(s); and</p> <p>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</p>
<u>Types Np and Ns</u>	<p>Maintain 50% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</p> <p>Maintain 85% of the trees which are greater than 24 inches DBH within 50 feet of the water(s); and</p> <p>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</p>

* Note: These standards must be exceeded before additional activity can be permitted within the riparian zone. Applicants electing to employ performance-based mitigation in accordance with the above matrix shall include appropriate analysis and justification in their site assessment/habitat management plan.

~~16.16.730 Locally Important Habitats and Species—Standards.~~

~~Alterations that occur within a locally important habitat area or that may affect a locally important species as defined herein shall be subject to review on a case-by-case basis. The technical administrator shall have the authority to require an assessment of the effects of the alteration on species or habitats and may require mitigation to ensure that unmitigated adverse effects do not occur. This standard is intended to allow for flexibility and responsiveness with regard to locally important species and habitats.~~

~~16.16.740-730 Habitat Conservation Area Buffers—Standards.~~

~~In addition to the applicable general protective measures found in WCC [16.16.265](#) and [16.16.720](#), the technical administrator Director shall have the authority to require buffers from the edges of all habitat conservation areas (in addition to the building setback required by [16.16.265\(D\)](#)) in accordance with the following:~~

A. General.

~~A.1.~~ Buffers shall be established for activities adjacent to habitat conservation areas as necessary to protect the integrity, functions, and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent

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human use or activity. Buffers shall not include areas that are functionally and effectively disconnected from the habitat conservation area by an existing, legally established road or other that are functionally and effectively disconnected from the habitat area by of an existing, legally established road or other substantially developed surface.

Comment [P/C78]: P/C moved to retain existing language. Passed 4-3

B. Stream Buffers.

~~C.2.~~ The standard buffer widths required by this Article are considered to be the minimum required and presume the existence of a dense vegetation community in the buffer zone adequate to protect the stream ecological functions and values at the time of the proposed activity. When a buffer lacks adequate vegetation to protect critical area functions, the ~~technical administrator~~ Director may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

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3. The standard buffer shall be measured landward horizontally from the edge of the ordinary high water mark as identified in the field. The required buffer shall be extended to include any abutting regulated wetland(s), landslide hazard areas, and/or erosion hazard areas and required buffers.

~~1-4.~~ For streams, the standard buffer is measured on both sides of the stream from the ordinary high water on both sides of the stream mark as identified in the field; provided, that for streams with identified channel migration zones, the buffer shall extend outward horizontally from the outer edge of the channel migration zone on both sides. The required buffer shall be extended to include any abutting regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across roads or other lawfully established structures or hardened surfaces.

2. The following standard buffer width requirements are established:

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- a. Shoreline streams: 150 feet;
- b. Fish bearing streams: 100 feet;
- c. Non fish bearing streams: 50 feet.

Comment [CES79]: Moved to Table 4

~~3-5.~~ Portions of streams that flow underground may be exempt from these buffer standards at the ~~technical administrator~~ Director's discretion when it can be demonstrated that no adverse effects on aquatic species will occur.

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B. ~~Buffers for Other Habitat Conservation Areas~~ Buffer Widths.

1. Standard buffer widths for habitat conservation areas shall be as identified in Table 4.

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~~D.2.~~ For habitat conservation areas not listed in Table 4, including those of locally important habitats and species and State priority habitats and areas with which federally listed or state priority species have a primary association, minimum buffers shall be based on habitat a management plan prepared pursuant to WCC 16.16.750 the technical administrator shall determine appropriate buffer widths for other habitat conservation areas. The Director shall have the authority to require a critical area assessment report and/or habitat management plan (HMP) pursuant to WCC 16.16.750, and may require mitigation to ensure that unmitigated adverse effects do not occur. based on the best available information. Buffer widths for non-stream habitat conservation areas shall be as identified in Table 3:

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Table 4. Buffer Requirements for HCAs

Habitat Conservation Area	Buffer Requirement
Type S – Freshwater	200 feet
Type S – Marine	150 feet
Type F – Lake	100 feet
Type F – Stream	150 feet
Type Np	50 feet
Type Ns	50 feet
manmade ponds identified in 16.16.710(D)(10)	25 feet, unless otherwise approved through an Habitat Management Plan pursuant to subsection (B)(2), above, or a Conservation Farm Plan pursuant to Article 8
Areas with which federally listed species have a primary association	Minimum buffers shall be based on recommendations provided by the Washington State Department of Fish and Wildlife PHS Program; provided, that local and site-specific factors shall be taken into consideration and the buffer width based on the best available information concerning the species/habitat(s) in question and/or the opinions and recommendations of a qualified professional with appropriate expertise. When there are no state recommendations or species management guidelines then only the building setback (WCC 16.16.265) shall be applied.
Critical saltwater habitats	Buffers shall extend 150 feet landward from ordinary high water mark of the marine shore. Buffers shall not be required adjacent to shellfish protection districts, but only in nearshore areas where shellfish reside.
Natural ponds and lakes	Ponds under 20 acres – Buffers shall extend 50 feet from the ordinary high water mark. Lakes 20 acres and larger (which are subject to WCC Title 23) – Buffers shall extend 100 feet from the ordinary high water mark; provided, that where vegetated wetlands are associated with the shoreline, the buffer shall be based on the wetland buffer requirements in WCC 16.16.630.
Natural area preserves and natural resource conservation areas	Buffers shall not be required adjacent to these areas. These areas are assumed to encompass the land required for species preservation.

Comment [CES80]: Policy change: 200' is the Court recommended based on National Wildlife Federation v. FEMA (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472)

Comment [CES81]: Now covered by subsection (B)(2)

Comment [CES82]: Now covered by the water types, above.

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Habitat Conservation Area	Buffer Requirement
Locally important habitat areas	The buffer for marine nearshore habitats shall extend landward 150 feet from the ordinary high water mark. The need for and dimensions of buffers for other locally important species or habitats shall be determined on a case-by-case basis, according to the needs of the specific species or habitat area of concern. Buffers shall not be required adjacent to the Chuckanut wildlife corridor. The technical administrator shall coordinate with the Washington State Department of Fish and Wildlife and other state, federal or tribal experts in these instances, and may use WDFW PHS management recommendations when available.

Comment [CES83]: Now covered by the water types, above.

Comment [CES84]: Now covered in subsection (B)(2)

16.16.740 Habitat Conservation Area Buffer Modification.

Buffer widths may be increased, decreased, or averaged in accordance with the following provisions, which provide flexible approaches to maximize both ecological functions and allowed uses. All mitigation proposed shall be consistent this Chapter.

A. **Buffer Width Increasing.** The Director may require the standard buffer width to be increased or to establish a non-riparian buffer, when such buffers are necessary for one of the following:

1. To protect priority fish or wildlife using the HCA.
2. To provide connectivity when a Type S or F waterbody is located within 300 feet of:
 - a. Another Type S or F water body; or
 - b. A fish and wildlife HCA; or
 - c. A Category I, II or III wetland;
3. ~~€~~To comply with the requirements of a habitat management plan prepared pursuant to WCC 16.16.750.
4. ~~P~~To protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance, provide adequate recruitment for large woody debris, maintain adequate streamwater temperatures, or maintain in-streamwater conditions.
5. ~~€~~To compensate for degraded vegetation communities, Clean Water Act 303(d) impaired water bodies, or steep slopes adjacent to the habitat conservation area.
6. ~~M~~To maintain areas for channel migration and/or frequently flooded areas.
7. ~~P~~To protect adjacent or downstream gradient areas from erosion, landslides, or other hazards.
8. ~~P~~To protect streamswaters from high intensity adjacent land uses.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect habitat functions. Increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the habitat.

B. **Buffer Width Averaging.**

1. Buffer width averaging allows limited reductions of buffer width in specified locations while requiring increases in others. Averaging of required buffer widths shall be allowed only where the applicant demonstrates that all of the following criteria are met:
 - a. The buffer has not been reduced pursuant to subsection (C). Buffer averaging is not allowed if the buffer has been reduced.

- b. Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation; and
 - c. The habitat contains variations in sensitivity due to existing physical characteristics; and
 - d. Averaging will not adversely impact the functions and values of fish and wildlife conservation areas; and
 - e. Averaging meets performance standards for protecting fish species; and
 - f. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
 - g. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30% ~~percent~~; and,
 - h. The buffer width shall not be reduced below 75% of the standard buffer width.
2. In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.

C. Buffer Width Reduction.

- 1. The Director shall have the authority to reduce buffer widths on a case-by-case basis; provided, that the general standards for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied, and when the applicant demonstrates to the satisfaction of the Director that all of the following criteria are met:
 - a. The buffer has not been averaged pursuant to subsection (B). Buffer reduction is not allowed if the buffer has been averaged.
 - b. The applicant demonstrates buffer averaging is not feasible.
 - c. The buffer shall not be reduced to less than 75% ~~percent~~ of the standard buffer specified in Table 4 ~~Table 3~~.
 - d. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30% ~~percent~~ (see Article 3 of this chapter).
 - e. The applicant has demonstrated application of mitigation sequencing as required in WCC 16.16.260 (General Mitigation Requirements).
 - f. To minimize impacts and provide equivalent functions and values as required by this section, the Director may require any or all of the following:
 - i. The use of alternative on-site wastewater systems in order to minimize site clearing, where appropriate;
 - ii. Using low impact development (LID) and LID best management practices where appropriate;
 - In order to offset habitat loss from buffer reduction, retaining existing native vegetation on other portions of the site equal to no more than the area impacted.
 - g. All buffer reduction impacts are mitigated and result in equal or greater protection of the HCA functions and values. This includes enhancement of existing degraded buffer area and provide mitigation for the disturbed buffer area.

Comment [P/C85]: P/C motion to strike. Carries 7-1-1

2. In all circumstances when the buffer between the area of reduction and the habitat conservation area is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.

Comment [P/C86]: P/C motion to approve.
Carries 9-0

- D. Buffer Width Variance.** Standard buffer widths may be reduced by more than 25% through a variance pursuant to WCC 16.16.273 (Variances); provided, that buffer averaging beyond that allowed in subsection (B) is prohibited.
- E.** The technical administrator shall have the authority to reduce buffer widths on a case-by-case basis; provided, that the general standards for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied, and when the applicant demonstrates to the satisfaction of the technical administrator that all of the following criteria are met:
1. The buffer reduction shall not adversely affect the habitat functions and values of the adjacent habitat conservation area or other critical area.
 - ~~2.1. The buffer shall not be reduced to less than 75 percent of the standard buffer specified in Table 3.~~
 - ~~3.1. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30 percent (see Article 3 of this chapter).~~
 4. The area that has been reduced shall be mitigated at least at a ratio of 1:1, on an area basis.
- F.** The technical administrator shall have the authority to average buffer widths on a case-by-case basis; provided, that the general standards for avoidance and minimization per WCC 16.16.260(A)(1)(a) and (b) shall apply, and when the applicant demonstrates to the satisfaction of the technical administrator that all of the following criteria are met:
1. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer and all increases in buffer dimension are parallel to the habitat conservation area.
 2. The buffer averaging does not reduce the functions or values of the habitat conservation area or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function.
 3. The buffer averaging is necessary due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation.
 4. The buffer width is not reduced to less than 75 percent of the standard width specified in Table 3.
 - ~~5.1. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30 percent.~~
 6. Where a buffer has been reduced, the technical administrator may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.
- G. Buffer Increases.** The technical administrator shall have the authority to increase the width of a habitat conservation area buffer on a case-by-case basis when there is clear evidence that such increase is necessary to achieve any of the following:
- ~~1. Comply with the requirements of a habitat management plan prepared pursuant to WCC 16.16.750.~~

- ~~2.1. Protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance, provide adequate recruitment for large woody debris, maintain adequate stream temperatures, or maintain in-stream conditions.~~
- ~~3.1. Compensate for degraded vegetation communities, Clean Water Act 303(d) impaired water bodies, or steep slopes adjacent to the habitat conservation area.~~
- ~~4.1. Maintain areas for channel migration and/or frequently flooded areas.~~
- ~~5.1. Protect adjacent or downstream areas from erosion, landslides, or other hazards.~~
- ~~6.1. Protect streams from high intensity adjacent land uses.~~

16.16.750 Habitat Conservation Areas – Review and Reporting Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration is more likely than not to contain habitat conservation areas or buffers, or could adversely affect a habitat area or buffer, the ~~technical administrator~~ Director shall require a site evaluation (field investigation) by a qualified professional or other measures to determine whether or not the species or habitat is present. If no habitat conservation areas are present, then review will be considered complete. If the site evaluation determines that the species or habitat is present, the ~~technical administrator~~ Director shall require a critical areas assessment report or habitat management plan (HMP), except; provided, that
1. No report or evaluation shall be required for developments outside of buffers within the upland portions of shellfish conservation areas.
 2. The ~~technical administrator~~ Director shall have the authority to waive the report requirement when he/she determines that the project is a single-family building permit development that involves less than one-half acre of clearing and/or vegetation removal and will not directly disturb the species, or specific areas or habitat features that comprise the habitat conservation area (nest trees, breeding sites, etc.) as indicated by a site plan or scaled drawing of the proposed development.
- B. In addition to the reporting requirements of WCC [16.16.255](#), the habitat conservation area assessment report/HMP shall describe the characteristics of the subject property and adjacent areas, including condition, quality, function, and values of the habitat conservation area at a scale appropriate to the function being evaluated (see WAC [365-196-830](#)(6)). The assessment shall include determination of appropriate buffers as set forth in WCC [16.16.740](#). The assessment shall also include field identification and/or delineation of habitat areas, analysis of historical aerial photos, and review of public records as necessary to determine potential effects of the development action on critical areas. Assessment reports shall include the following site- and proposal-related information unless the ~~technical administrator~~ Director determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:
1. A map drawn to a common scale or survey showing the following information:
 - a. Topographic, hydrologic, and vegetative features.
 - b. The location and description of wildlife and habitat features, and all critical areas on or within 200 feet of the site, or farther, given the scale appropriate to the function being evaluated.

- c. Proposed development activity.
- d. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.
- e. Surrounding land uses and zoning (to ensure appropriate buffer).
2. An analysis, including an analysis of cumulative impacts, of how the proposed development activities will affect the fish and wildlife habitat conservation area and/or buffer, including the area of direct disturbance; effects of stormwater management; effects on any 303(d) impaired water bodies; proposed alteration to surface or subsurface hydrology; natural drainage or infiltration patterns; clearing and grading impact; temporary construction impacts; effects of increased intensity of use (including noise, light, human intrusion, etc.).
3. Provisions to reduce or eliminate adverse impacts of the proposed development activities on the functions and values of the habitat conservation area including, but not limited to:
 - b. Buffering;
 - c. Clustering of development;
 - d. Retention of native vegetation;
 - e. Access limitations;
 - f. Seasonal restrictions on construction activities in accordance with the guidelines developed by the Washington State Department of Fish and Wildlife, the U.S. Army Corps of Engineers, the salmonid recovery plan and/or other agency or tribe with expertise and jurisdiction over the subject species/habitat; and
 - g. Other appropriate and proven low impact development techniques.
4. Management recommendations developed by WDFW through its Priority Habitat and Species program.
5. Additional information including, but not limited to, direct observations of species use or detailed physical and biological characteristics both on and off site at an appropriate scale (see WAC [365-196-830](#)(6)). The assessment of off-site conditions shall be based on available information and shall not require accessing off-site properties.
6. Applicants near a bald eagle nest shall complete the U.S. Fish and Wildlife Service (USFWS) self-assessment (<https://www.fws.gov/pacific/eagle>) to determine whether a USFWS bald eagle permit is needed, and if so, apply for one. Development activities near bald eagle habitat shall be carried out consistent with the National Bald Eagle Guidelines.
- C. All habitat management plans ~~shall~~ should be prepared in consultation with the State Department of Fish and Wildlife and/or other federal, state, local or tribal resource agencies with jurisdiction and expertise in the subject species/habitat, and shall contain a review of the most current best available science applicable to the subject species/habitat.
- D. For single-family building permits, the applicant may hire a qualified professional to prepare the assessment report or may request that the County assess the regulated wetland(s) and buffers and determine the impacts associated with the project, subject to the following: ~~At the request of the applicant, the County may gather the required information in this section for applicants seeking to develop a single-family home; provided, that:~~

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1. Availability of County staff shall be at the discretion of the ~~technical administrator~~ Director and subject to workload and scheduling constraints.
2. Fees for County staff services shall be in accordance with the unified fee schedule.

16.16.760 Habitat Conservation Areas – Mitigation Standards.

Activities that adversely affect habitat conservation areas and/or their buffers as determined by the ~~technical administrator~~ Director shall include mitigation sufficient to achieve no net loss of habitat functions and values or an ecological lift in accordance with WCC 16.16.260 and this section.

~~A. In determining the extent and type of mitigation required, the technical administrator may consider all of the following:~~

- ~~1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;~~
- ~~2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;~~
- ~~3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;~~
- ~~4. The likely success of the proposed mitigation measures;~~
- ~~5. Effects of the mitigation actions on neighboring properties; and~~
- ~~6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.~~

~~B. The following additional mitigation standards shall apply:~~

~~B. Mitigation for alterations to habitat areas shall achieve equivalent or greater biologic functions, and shall provide similar functions to those that are lost or altered.~~

~~C. A. Mitigation in the form of habitat restoration or enhancement is required when a habitat is altered permanently as a result of an approved project. Alterations shall not result in net loss of habitat.~~

~~1. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~

~~2. Mitigation shall be provided on site whenever feasible. Off-site mitigation in a location that will provide a greater ecological benefit to the species and/or habitats affected and have a greater likelihood of success may be accepted at the discretion of the technical administrator. Mitigation shall occur as close to the impact site as possible. As mitigation is moved further away from the impacted habitat, the technical administrator may increase the amount of mitigation required. If off-site mitigation is proposed, the applicant must demonstrate through an alternatives/mitigation sequencing analysis (WCC 16.16.260) that the mitigation will have greater ecological benefit.~~

Comment [PDS87]: An approved habitat management plan may require a lift to comply.

Comment [CES88]: Moved to 16.16.260 General Mitigation Requirements

Comment [CES89]: Moved to 16.16.260 General Mitigation Requirements

Comment [CES90]: Now covered by 16.16.260(D)

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D.B. All mitigation sites shall have buffers consistent with the buffer requirements established in WCC 16.16.740; provided, that the ~~technical administrator~~ Director shall have the authority to approve a smaller buffer when existing site constraints (such as a road) prohibit attainment of the standard buffer. Mitigation actions shall not create buffer encumbrances on adjoining properties.

3. ~~The technical administrator shall require annual monitoring of mitigation activities and submittal of annual monitoring reports in accordance with WCC 16.16.260(C) to ensure and document that the goals and objectives of the mitigation are met. Monitoring shall be for a period of up to five years.~~

Comment [CES91]: Covered by 16.16.260(l)(2).

E.C. Mitigation projects involving in-stream water work including, but not limited to, installation of large woody debris shall be designed to ensure there are no adverse hydraulic effects on ~~upstream-up-~~ or ~~downstream-downgradient~~ properties. The County Public Works River and Flood Division shall review any such mitigation projects for compliance with this provision.

D. As applicable, apply mitigation standards of the Army Corps of Engineer Regional General Permit 6 for inland marine waters as amended February 12, 2020.

Comment [CES92]: Added for consistency with RGP-6

F.E. On a case by case basis, the technical administrator shall have the authority to require mitigation ~~For permanent impacts to a habitat conservation areas or their buffers, mitigation shall be provided at the following ratios, unless the Director approves a habitat management plan with greater ratios:~~

1. Where the mitigation is in place and functional before the impacts occur (i.e., advanced mitigation), at a ratio determined by the functions, values, and goals of an advanced mitigation plan, at a 1:1 ratio (area or function).
2. Where the mitigation is in place within 1 year of the impact occurring, at a 1:1 ratio (area or function). ~~Where the mitigation is placed after the impact occurs, at a 1.25:1 ratio (area or function); and~~
- 2.3. Where the mitigation is placed after 1 year of the impact occurring, at a 1.25:1 ratio (area or function).
4. For retroactive permits the Director may require the ratio shall be up to double the ratio in subsection (3) above.

Comment [P/C93]: P/C motion to amend as shown. Passes 7-0

Article 8. Conservation Program on Agriculture Lands (CPAL)

16.16.800 Purpose.

- A. The well-being of farms and ranches in Whatcom County depends in part on good quality soil, water, air, and other natural resources. Agricultural operations that incorporate protection of the environment, including critical areas and their buffers as defined by this chapter, are essential to achieving this goal.
- B. The purpose of the CPAL program is to allow farmers practicing ongoing agricultural activities that may affect critical areas, their functions and values, and/or their buffers to do so either (1) in accordance with the standard requirements of this chapter or (2) pursuant to a conservation farm plan voluntarily prepared and approved pursuant to this article. If farmers and ranchers are willing to enter into the CPAL program, then flexibility in these provisions may be extended to them. If not, then they must observe the standard provisions of this chapter.
- C. This program shall be subject to continued monitoring and adaptive management to ensure that it meets the purpose and intent of this chapter.

16.16.810 Resource Concerns.

Agricultural operations, including the keeping of horses and other large animals, have the potential to create adverse impacts to critical areas. It is the County's policy to minimize such impacts.

- A. **Nutrient Pollution of Water.** Animal waste contains nutrients (nitrogen and phosphorous). With each rain, these wastes can wash off the land and into the nearest stream, lake, or wetland. In surface water, phosphorous and nitrogen fertilize aquatic plants and weeds. As the plants and weeds proliferate and decay, the dissolved oxygen that fish need to survive is depleted. Nitrogen in the form of nitrate is easily dissolved in and carried with rainfall through our permeable soils to groundwater. Nitrate concentrations exceeding the maximum contaminate level for safe drinking water are found in many wells of Whatcom County. These can present a significant human health risk, particularly to the very old and young.
- B. **Pathogen Pollution of Water.** Manure contains bacteria and other pathogens. These can make the water unfit for drinking without treatment or shellfish unfit for human consumption. They can also make water unsafe for human contact and recreational sports such as fishing, swimming or water skiing. Both surface and groundwater are vulnerable to this type of pollution.
- C. **Sediment Pollution to Surface Water.** Regardless of the amount of supplemental feed provided, large animals will continue grazing until all palatable vegetation is gone. On especially small lots (one or two acres), the animals that are allowed free and continuous access to vegetation quickly graze-out and trample pasture grasses and forbs. These areas are then susceptible to invasion by weeds, including noxious weeds, and brush. The resulting bare ground is subject to erosion from wind and water. Lands that lack adequate vegetation are subject to erosion, and contaminated runoff from these areas can enter water bodies and wetlands and interfere with fish and wildlife habitat.
- D. **Degradation of Riparian Areas.** The term "riparian" is defined in Article 9 of this chapter and includes the areas adjacent to streams, lakes, marine shorelines and other waters. A healthy riparian area is essential to protecting fish and wildlife, including salmon and shellfish. Dense riparian vegetation

along the water's edge will slow and protect against flood flows; provide infiltration and filtering of pollutants; secure food and cover for fish, birds and wildlife; and keep water cooler in summer. If it occurs, uncontrolled grazing has the potential to remove important riparian vegetation.

16.16.820 Classification and Applicability.

- A. A conservation farm plan identifies the farming or ranching activities and the practice(s) necessary to avoid their potential negative impacts (resource concerns). Practice selection depends upon the types of livestock raised and crops grown. Based upon the type and intensity of the operation, some generalizations can be made as to the resource concerns and remedies that apply.
- B. Some operations present relatively low risks to critical areas because of their benign nature, timing, frequency, or location. For these operations, the resource concerns and remedies are relatively easy to identify and implement. These are described in more detail as Type 1 agricultural operations subject to standardized conservation farm plans in WCC [16.16.830](#) and [16.16.840\(A\)](#).
- C. Where the potential negative impacts to critical areas are moderate or high, solutions are more difficult to formulate and implement. In those circumstances, a more rigorous planning process is required. In such cases, a formal written plan shall provide the desired environmental protection. These types of operations are described as agricultural operations requiring custom conservation farm plans in WCC [16.16.830](#) and [16.16.840\(B\)](#) or (C).
- D. Agricultural activities that qualify for coverage include:
 - 1. Type 1 Operations.
 - a. To qualify as a Type 1 operation, a farm shall not exceed one animal unit per one acre of grazable pasture. These operations present a low potential risk to critical area degradation including ground/surface water contamination because the animals kept generate fewer nutrients than can be used by the crops grown there.
 - b. Critical areas on Type 1 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved standard conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(A\)](#).
 - c. Those operators qualifying for a Type 1 (standard) conservation farm plan may elect to do a Type 2 (custom) conservation farm plan if they want to use "Prescribed Grazing" (NRCS Practice 528A) to manage vegetative filter strips installed alongside critical areas.
 - 2. Type 2 Operations.
 - a. Type 2 operations are farms that include, but are not limited to, those that exceed one animal unit per one acre of grazable pasture; farms that have orchards, vineyards, small-fruit field or row crops; and drainage improvement districts. These operations present a potential moderate risk to critical area degradation, including ground or surface water contamination, because the nutrients applied from manure or commercial fertilizers may exceed that which can be easily used by the crops grown there without careful planning and management. The agricultural activities are also likely to be much more intense than Type 1 operations, posing greater potential risks to other critical areas.

- b. Critical areas on Type 2 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(B\)](#).
- 3. Type 3 Operations.
 - a. Type 3 operations include dairies and animal feeding operations/concentrated animal feeding operations (AFO/CAFOs). These operations are already regulated by state and federal governments (see Chapter [90.64](#) RCW et seq.; [40](#) CFR [122.23](#) and [40](#) CFR Part 412).
 - b. Critical areas are protected against the potential negative impacts of Type 3 agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(C\)](#).

16.16.830 Conservation Farm Plans – General Standards.

- A. All conservation farm plans shall include all practicable measures, including best management practices, to maintain existing critical area functions and values.
- B. A conservation farm plan shall not recommend nor authorize:
 - 1. Filling, draining, grading, or clearing activities within critical areas or buffers:
 - a. Except on ongoing agricultural land where such activities are a demonstrated essential part of the ongoing agricultural use or part of routine maintenance; and
 - b. When it does not expand the boundaries of the ongoing agricultural use; and
 - c. The appropriate permits for doing so have been obtained.
 - 2. The construction of new structures. New structures shall be constructed in compliance with the applicable standard requirements of this chapter and the Whatcom County Code.
 - 3. New or expanded drainage systems. Routine maintenance of existing drainage systems may be allowed, but only in compliance with the Washington State Hydraulic Code (Chapter [220-660](#) WAC) and the best management practices found in the “Drainage Management Guide for Whatcom County Drainage Improvement Districts.”
 - 4. The conversion of land to agricultural use.
- C. Other plans prepared for compliance with state or federal regulations (e.g., nutrient management plans), or to obtain an accredited private third-party certification (e.g., GLOBALG.A.P.), or similar plans may be used as part of or in lieu of a conservation farm plan if the ~~technical administrator~~ Director determines they adequately address the requirements of this title.

16.16.840 Conservation Farm Plan Requirements.

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of Type 1 operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to protect water quality, and the following additional components:
 - 1. System Siting and Design. Barns, corrals, paddocks, or lots are to be sited to avoid runoff directly into critical areas.
 - a. Where structures exist in critical areas or buffers and cannot be relocated, corrective measures must be taken if necessary to avoid runoff of pollutants and bacteria to critical areas.

- b. Along regulated streams², lakes, ponds, or wetlands:
 - i. Where trees and shrubs already exist, they shall be retained and managed to preserve the existing functions of the buffer pursuant to the USDA Natural Resource Conservation Service's (NRCS) Conservation Practice 391, "Riparian Forest Buffer."
 - ii. Where trees and shrubs are absent, a strip or area of herbaceous vegetation shall be established and maintained between barns, corrals, paddocks, and grazing areas pursuant to the NRCS Conservation Practice 393, "Vegetative Filter Strip," and USDA's buffer width design tool for surface runoff found in the publication "Conservation Buffers Design Guidelines for Buffers, Corridors, and Greenways." Livestock shall be excluded from the vegetative filter strips established to protect critical areas pursuant to NRCS Practice 472, "Access Control."
- 2. Manure Collection, Storage, and Use. Manure and soiled bedding from stalls and paddocks are to be removed and are to be placed in a storage facility protected from rainfall so that runoff does not carry pollutants and bacteria to critical areas. Manure is to be used as cropland fertilizer. The rate and timing of manure application shall not exceed crop requirements or cause surface or groundwater water quality degradation. It is to be applied in a manner to avoid runoff of nutrients and bacteria to critical areas.
- 3. Pasture Management. Pastures are to be established and managed pursuant to "Prescribed Grazing" (NRCS Practice 528A).
- 4. Exercise or Barn Lots. These normally bare areas must be stabilized and managed to prevent erosion and sediment movement to critical areas. A diversion terrace shall be installed, where necessary, to hinder flow to and across the lot or paddock. Runoff from the lot must be treated via the vegetative filter strip or riparian buffer as described in subsection (A)(1) of this section to avoid contaminants reaching critical areas.
- 5. Existing native vegetation within critical areas and their buffers shall be retained.
- 6. Chemical additions, including fungicides, herbicides, and pesticides, shall not be applied within 50 feet of standing or flowing water except by a licensed applicator.
- 7. Fertilizers Other Than Manure. The rate and timing of fertilizer application shall not exceed crop requirements, or cause surface or groundwater quality degradation.
- B. **Type 2 (Custom) Conservation Farm Plans.** In addition to the elements of a Type 1 conservation farm plan, Type 2 plans must address the following:
 - 1. In developing the elements that an approved conservation farm plan must contain, the ~~technical administrator~~ **Director** may authorize the use of the methods, technologies, and best management practices of the Natural Resources Conservation Service. Other standards may be used when such alternatives have been developed by a land grant college or a professional engineer with expertise in the area of farm conservation planning.
 - 2. Implementation of the conservation farm plan must protect existing values and functions of critical areas. Benchmark conditions are to be captured and described in the plan. This may consist of photo documentation, written reports or both.

² Note that ditched channels may or may not meet the definition of a stream. See Article 9, Definitions.

3. Wetlands shall be conserved pursuant to the provisions of Title 180 – National Food Security Act Manual (see <http://www.nrcs.usda.gov/programs/wetlands/index.html>).
4. Custom conservation farm plans need not address the application, mixing, and/or loading of insecticides, fungicides, rodenticides, and pesticides; provided, that such activities are carried out in accordance with the Washington State Department of Agriculture and all other applicable regulations including, but not limited to: the provisions of Chapter [90.48](#) RCW, the Clean Water Act, United States Code (USC) Section 136 et seq. (Federal Insecticide, Fungicide, and Rodenticide Act), Chapter [15.58](#) RCW (Pesticide Control Act), and Chapter [17.21](#) RCW (Pesticide Application Act).
5. Where potential significant impacts to critical areas are identified through a risk assessment, then plans shall be prepared to prevent and/or mitigate same by:
 - a. A planning advisor; or
 - b. Through the USDA Natural Resources Conservation Service; or
 - c. The Whatcom conservation district; or
 - d. An eligible farmer or rancher, who participates in this program by:
 - i. Attending a County-sponsored or approved workshop, and
 - ii. Conducting a risk assessment of their farm or ranch, alone or with a planning advisor's assistance, and
 - iii. Developing a plan to prevent and/or mitigate any identified risks, and
 - iv. Having the plan approved pursuant to WCC [16.16.290](#).

One resource for guidance is "Tips on Land and Water Management for Small Farm and Livestock Owners in Whatcom County, Washington." It can be obtained from the Whatcom conservation district's website: <http://www.whatcomcd.org/small-farm>. Other guidance may also be used, provided it is consistent with the best available science criteria in WAC [365-195-900](#) through [365-195-925](#).

- C. **Type 3 (Custom) Conservation Farm Plans.** Conservation farm plans meeting the criteria of state and federal laws pertaining to AFO/CAFOs (see Chapter [90.64](#) RCW et seq., [40](#) CFR [122.23](#) and [40](#) CFR Part 412) fulfill the requirements of this chapter. (See U.S. EPA "Final Guidance – Managing Manure Guidance for Concentrated Animal Feeding Operations (CAFOs)" at: <http://epa.gov/guide/cafo/>).

16.16.850 Preparation and Approval of Conservation Farm Plans.

Conservation farm plans shall be subject to County review, approval, monitoring, adaptive management, and enforcement in accordance with the following:

- A. The ~~technical administrator~~ Director shall review and approve all conservation farm plans.
- B. Table ~~5~~ 4 shows which entities may prepare and/or provide technical assistance and recommendations in preparing which type of conservation farm plan:

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Table 5. Who May Prepare Conservation Farm Plans

Who May Prepare	Type 1 Operations	Type 2 and 3 Operations
The farm operator	X	
Whatcom County planning and development services	X	X
A qualified consultant	X	
A watershed improvement district (for a farm or ranch that is within its boundaries)	X	
The Whatcom conservation district	X	X
A planning advisor	X	X

- C. The farm operator can seek conservation farm plan approval directly through the department of planning and development services, or grant permission to any of the entities listed in Table 5 to prepare and submit it. If the conservation farm plan is prepared by any entity listed in Table 5 other than the Whatcom conservation district, the Department will conduct a site visit prior to plan approval in order to assess critical areas and sufficiency of the plan to protect water quality and critical areas.

16.16.860 Monitoring and Compliance.

- A. The ~~technical administrator~~ Director and/or the farm operator shall periodically monitor plan implementation and compliance beginning one year after plan approval and every two years thereafter, through the life of the plan, or more frequently at the ~~technical administrator~~ Director's discretion. The monitoring may include periodic site inspections, self-assessment by the farm operator, or other appropriate actions. For a time period of up to every five years, self-certification is allowed for Type 1 conservation farm plans, or if the plan is prepared by the Whatcom conservation district or planning advisor and approved by the department. If a sufficient self-certification monitoring report (must include photos and implemented best management practices) is not submitted within 30 days of request, County staff may make a site visit. Site visits will be coordinated with the landowner/farm operator. Prior to carrying out a site inspection, the ~~technical administrator~~ Director shall provide reasonable notice to the owner or manager of the property as to the purpose or need for the entry, receive confirmation, and afford at least two weeks in selecting a date and time for the visit. At the landowner's/farm operator's discretion, staff may be accompanied by the planning advisor or Whatcom conservation district planner.
- B. Where the planning advisor has reason to believe that there is an imminent threat to public health or significant pollution with major consequences occurring as a result of the agricultural operations, the planning advisor will advise the agricultural operator of his or her concerns in writing. While the planning advisor may provide suggestions for resolving the issue, the responsibility for compliance and resolution of issues rests solely with the farm operator. If compliance issues are not promptly resolved, the planning advisor shall promptly withdraw from representing the farm operator, notify

- the ~~technical administrator~~ Director of such, and may report such situations to the ~~technical administrator~~ Director for subsequent action and enforcement in accordance with WCC [16.16.285](#).
- C. The farm practices described in an approved conservation farm plan will be deemed to be in compliance with this chapter so long as the landowner/farm operator is properly and fully implementing the practices and responding to possible adaptive management requirements according to the timeline in the plan. This will be verified through conservation farm plan implementation monitoring.
- D. Agricultural operations shall cease to be in compliance with this article, and a new or revised conservation farm plan will be required, when the ~~technical administrator~~ Director determines that any of the following has occurred:
1. When a farm or ranch operator fails to properly and fully implement and maintain their conservation farm plan.
 2. When implementation of the conservation farm plan fails to protect critical areas. If so, a new or revised conservation farm plan shall be required to protect the values and functions of critical areas at the benchmark condition.
 3. When substantial changes in the agricultural activities of the farm or livestock operation have occurred that render the current conservation farm plan ineffective. Substantial changes that render a conservation farm plan ineffective are those that:
 - a. Degrade baseline critical area conditions for riparian and wetland areas that existed when the plan was approved; or
 - b. Result either in a direct discharge or substantial potential discharge of pollution to surface or ground water; or
 - c. The type of agricultural practices change from Type 1 to Type 2, Type 2 to Type 3, or Type 1 to Type 3 operations.
 4. When the increase in livestock or decrease in land base or nutrient export results in the farm being out of balance between the nutrients generated and to be used by growing crops.
 5. When a new or revised conservation farm plan is required, and the farm operator has been so advised in writing and a reasonable amount of time has passed without significant progress being made to develop said plan. Refusal or inability to provide a new plan within a reasonable period of time shall be sufficient grounds to revoke the approved conservation farm plan and require compliance with the standard provisions of this chapter.
 6. When an owner or manager denies the ~~technical administrator~~ Director reasonable access to the property for technical assistance, monitoring, or compliance purposes, then the ~~technical administrator~~ Director shall document such refusal of access and notify the owner of his/her findings. The owner shall be given an opportunity to respond in writing to the findings of the ~~technical administrator~~ Director, propose a prompt alternative access schedule, and to state any other issues that need to be addressed. Refusal or inability to comply with an approved conservation farm plan within a reasonable period of time shall be sufficient grounds to revoke said plan and require compliance with the standard provisions of this chapter.
- E. With one exception, Whatcom County will not use conservation farm plans (standard or custom) as an admission by the landowner that s/he has violated this chapter. Disclosure of current farm

practices, structures on conservation farm plan documents, or observations made through monitoring inspections or conservation farm plan approval, will not be used to bring other enforcement actions against a farm operator. The exception is that when matters of major life, health, environment, or safety issues, as determined by the ~~technical administrator~~ Director, are observed and the landowner fails to immediately and permanently remediate, then the observations may be used in an enforcement action.

16.16.870 Limited Public Disclosure.

- A. Conservation farm plans will not be subject to public disclosure unless required by law or a court of competent jurisdiction;
- B. Provided, that the County will collect summary information related to the general location of a farming enterprise, the nature of the farming activity, and the specific best management practices to be implemented during the conservation farm plan review process. The summary information shall be provided by the farm operator or his/her designee and shall be used to document the basis for the County's approval of the plan.
- C. The County will provide to the public via its website information regarding which farms have approved conservation farm plans and the date of their approval.
- D. Upon request, the County may provide a sample conservation farm plan, exclusive of site- or property-specific information, to give general guidance on the development of a conservation farm plan.

Article 9. Definitions

16.16.900 Definitions.

The terms used throughout this program shall be defined and interpreted as indicated below. When consistent with the context, words used in the present tense shall include the future; the singular shall include the plural, and the plural the singular. Any words not defined herein shall be defined pursuant to Titles 20 (Zoning), 22 (Land Use and Development), 23 (Shoreline Management Program), or their common meanings when not defined in code.

“Accessory structure” means a structure that is incidental and subordinate in intensity to a primary use and located on the same lot as the primary use. Barns, garages, storage sheds, and similar appurtenances are examples. Structures that share a common wall with a primary residential structure shall be considered an extension of the primary structure, rather than an accessory structure.

Comment [AP94]: Added for consistency with revisions made to the SMP Bulk Provisions Table per Scoping Document, Item #17d.

“Active alluvial fan” means a portion or all of a fan that has experienced channel changes, erosion, or deposition. Active fans can be identified based on determination by field geomorphic and topographic evidence, and by historical accounts.

“Activity” means human activity associated with the use of land or resources.

“Adaptive management” means using scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. Management policy may be adapted based on a periodic review of new information.

“Adequate water supply” means a water supply that meets requirements specified in the Whatcom County drinking water ordinance (WCC Chapter 24.11 ~~WCC~~).

“AFO” is an acronym for animal feeding operation.

“Agricultural activities” means those activities directly pertaining to the production of crops or livestock including, but not limited to: cultivation; harvest; grazing; animal waste storage and disposal; fertilization; the operation and maintenance of farm and stock ponds or drainage ditches, irrigation systems, and canals; and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. The construction of new structures or activities that bring a new, non-ongoing agricultural area into agricultural use are not considered agricultural activities.

“Agricultural land” is land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, or animal products, or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, or livestock, and/or lands that have been designated as capable of producing food and fiber, which have not been developed for urban density housing, business, or other uses incompatible with agricultural activity.

“Alluvial fan” means a fan-shaped deposit of sediment and organic debris formed where a stream flows or has flowed out of a mountainous upland onto a level plain or valley floor because of a sudden change in sediment transport capacity (i.e., significant change in slope or confinement).

“Alluvium” is a general term for clay, silt, sand, gravel, or similar other unconsolidated detrital materials, deposited during comparatively recent geologic time by a stream or other body of running water, as a sorted or semi-sorted sediment in the bed of the stream or on its floodplain or delta.

“Alteration” means any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing (vegetation), draining, construction, compaction, excavation, or any other activity that changes the character of the critical area.

“Anadromous fish” means fish species that spend most of their lifecycle in salt water, but return to freshwater to reproduce.

“Animal unit” means 1,000 pounds of livestock live weight.

“Aquifer” means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs (Chapter [173-160](#) WAC).

“Aquifer susceptibility” means the ease with which contaminants can move from the land surface to the aquifer based solely on the types of surface and subsurface materials in the area. Susceptibility usually defines the rate at which a contaminant will reach an aquifer unimpeded by chemical interactions with the vadose zone media.

“Aquifer vulnerability” is the combined effect of susceptibility to contamination and the presence of potential contaminants.

“Bankfull width” means:

1. For streams – The measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. In cases where multiple channels exist, bankfull width is the sum of the individual channel widths along the cross section (see Forest Practices Board Manual, Section 2).
2. For lakes, ponds, and impoundments – Line of mean high water.
3. For tidal water – Line of mean high tide.
4. For periodically inundated areas of associated wetlands – Line of periodic inundation, which will be found by examining the edge of inundation to ascertain where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland.

“Base flood” is a flood event having a ~~one percent~~ one percent 1% chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A (zone subject to flooding during a 100-year flood, but less so than V zones) or V (zone subject to the highest flows, wave action, and erosion during a 100-year flood).

“Bedrock” is a general term for rock, typically hard, consolidated geologic material that underlies soil or other unconsolidated, superficial material or is exposed at the surface.

“Best available science” means information from research, inventory, monitoring, surveys, modeling, synthesis, expert opinion, and assessment that is used to designate, protect, or restore critical areas. As defined by WAC [365-195-900](#) through [365-195-925](#), best available science is derived from a process that includes peer-reviewed literature, standard methods, logical conclusions and reasonable inferences, quantitative analysis, and documented references to produce reliable information.

“Best management practices” means conservation practices or systems of practices and management measures that:

1. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment;
2. Minimize adverse impacts to surface water and groundwater flow, circulation patterns, and to the chemical, physical, and biological characteristics of waters, wetlands, and other fish and wildlife habitat;
3. Control plant site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material.

“Buffer (the buffer zone)” means the area adjacent to the outer boundaries of critical areas including wetlands; habitat conservation areas such as streams, lakes, and marine shorelines; and/or landslide hazard areas that separates and protects critical areas from adverse impacts associated with adjacent land uses.

“CAFO” is an acronym for concentrated animal feeding operation.

“CFR” is an acronym for Code of Federal Regulations.

“Channel migration zone (CMZ)” means the area along a river or stream within which the channel can reasonably be expected to migrate over time as a result of normally occurring processes. It encompasses that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion. There are three components of the channel migration zone: (1) the historical migration zone (HMZ) – the collective area the channel occupied in the historical record; (2) the avulsion hazard zone (AHZ) – the area not included in the HMZ that is at risk of avulsion over the timeline of the CMZ; and (3) the erosion hazard area (EHA) – the area not included in the HMZ or the AHZ that is at risk of bank erosion from stream flow or mass wasting over the timeline of the CMZ. The channel migration zone may not include the area behind a lawfully constructed flood protection device. Channel migration zones shall be identified in accordance with guidelines established by the Washington State Department of Ecology.

“Clearing” means destruction of vegetation by manual, mechanical, or chemical methods and that may resulting in exposed soils. Clearing includes, but is not limited to, actions such as cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting, or burning.

“Commercial fish” means those species of fish that are classified under the Washington State Department of Fish and Wildlife Food Fish Classification as commercial fish (WAC [220-12-010](#)).

“Compensatory mitigation” means a project for the purpose of mitigating, at an equivalent or greater level, unavoidable critical area and buffer impacts that remain after all appropriate and practicable avoidance and minimization measures have been implemented. Compensatory mitigation includes, but is not limited to: wetland creation, restoration, enhancement, and preservation; stream restoration and relocation; rehabilitation; and buffer enhancement.

“Conservation” means the prudent management of rivers, streams, wetlands, wildlife and other environmental resources in order to preserve and protect them. This includes the careful use of natural resources in order to prevent depletion or harm to the environment.

“Conservation easement” means a legal agreement that the property owner enters into to restrict uses of the land for purposes of natural resources conservation. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property.

“Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally in groundwater, air, or soil or that occurs at concentrations greater than those in the natural levels (Chapter [172-200](#) WAC).

“County” means Whatcom County, Washington.

“CPAL” is an acronym for Conservation Program on Agriculture Lands.

“Critical aquifer recharge areas” means areas designated by WAC [365-190-080](#)(2) that are determined to have a critical recharging effect on aquifers (i.e., maintain the quality and quantity of water) used for potable water as defined by WAC [365-190-030](#)(2).

“Critical area tract” means land held in private ownership and retained in an open undeveloped condition (native vegetation is preserved) in perpetuity for the protection of critical areas.

Critical Areas. The following areas shall be regarded as critical areas:

1. Critical aquifer recharge areas;
2. Wetlands;
3. Geologically hazardous areas;
4. Frequently flooded areas;
5. Fish and wildlife habitat conservation areas.

“Critical areas report” means a report prepared by a qualified professional or qualified consultant based on best available science, and the specific methods and standards for technical study required for each applicable critical area. Geotechnical reports and hydrogeological reports are critical area reports specific to geologically hazardous areas and critical aquifer recharge areas, respectively.

“Critical facilities (essential facilities)” means buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes pursuant to the most recently adopted International Building Code (IBC).

“Critical habitat” means habitat areas with which endangered, threatened, sensitive or monitored plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified herein with reference to lists, categories, and definitions promulgated by the Washington State Department of Fish and Wildlife as identified in WAC [232-12-011](#) or [232-12-014](#); in the Priority Habitat and Species (PHS) Program of the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations.

“Critical saltwater habitat” includes all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as Pacific herring, surf smelt and Pacific sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

“Cumulative impact” means effects on the environment that are caused by the combined results of past, current and reasonably foreseeable future activities. Evaluation of such cumulative impacts should consider: (1) current circumstances affecting the critical area and relevant natural processes; (2) reasonably foreseeable future development that may affect the critical area; and (3) beneficial effects of any established regulatory programs under other local, state, and federal laws.

“Debris flow” means a moving mass of rock fragments, soil, and mud, more than half of the particles being larger than sand size; a general term that describes a mass movement of sediment mixed with water and air that flows readily on low slopes.

“Debris torrent” means a violent and rushing mass of water, logs, boulders and other debris.

“Deepwater habitats” means permanently flooded lands lying below the deepwater boundary of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium in which the dominant organisms live. The boundary between wetland and deepwater habitat in the marine and estuarine systems coincides with the elevation of the extreme low water of spring tide; permanently flooded areas are considered deepwater habitats in these systems. The boundary between wetland and deepwater habitat in the riverine and lacustrine systems lies at a depth of two meters (6.6 feet) below low water; however, if emergent vegetation, shrubs, or trees grow beyond this depth at any time, their deepwater edge is the boundary.

“Delineation” means the precise determination of wetland/non-wetland boundaries in the field according to the application of the specific method described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, as amended, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised.

Designated Species, Federal. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.

Designated Species, State. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC [232-12-014](#) (state endangered species) and WAC [232-12-011](#) (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

"Development" means any land use activity, action, or manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, site work, and installation of utilities; land division, binding site plans, and planned unit developments; dredging, drilling, dumping, filling, grading, clearing, or removal of any sand, gravel, or minerals; shoreline stabilization works, driving of piling, placing of obstructions; or any project of a permanent or temporary nature that interferes with the normal public use of the surface of the waters overlying lands subject to the act at any stage of water level. "Development" does not include dismantling or removing structures if there is no other associated development or redevelopment. any activity that requires federal, state, or local approval for the use or modification of land or its resources. These activities include, but are not limited to: subdivisions and short subdivisions; binding site plans; planned unit developments; variances; shoreline substantial development permits and exemptions; clearing activity; fill and grade work; activity conditionally allowed; building or construction; revocable encroachment permits; and septic approval.

Comment [CES95]: Amended to be consistent with that in T-23.

"Director" means the director of the Whatcom County Department of Planning and Development Services, or his/her designee.

"Ditch" or "drainage ditch" means an artificially created watercourse constructed to convey surface or groundwater. Ditches are graded (manmade) channels installed to collect and convey water to or from fields and roadways. Ditches may include:

1. Irrigation ditches;
2. Waste ways;
3. Drains;
4. Outfalls;
5. Operational spillways;
6. Channels;
7. Stormwater runoff facilities; or
8. Other wholly artificial watercourses.

This definition is not meant to include artificial water courses that conveys or historically conveyed (prior to human alteration) waters of the state, is used by anadromous or other fish populations, or flows directly into shellfish habitat conservation areas.

“Emergency activities” means those activities which require immediate action within a time too short to allow full compliance with this chapter due to an unanticipated and imminent threat to public health, safety or the environment. Emergency construction does not include development of new permanent protective structures where none previously existed. All emergency construction shall be consistent with the policies of Chapter [90.58](#) RCW and this chapter. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

“Emergent wetland” means a wetland with at least ~~30% percent~~ of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

“Enhancement” means actions performed within an existing degraded critical area and/or buffer to intentionally increase or augment one or more functions or values of the existing critical area or buffer. Enhancement actions include, but are not limited to, increasing plant diversity and cover, increasing wildlife habitat and structural complexity (snags, woody debris), installing environmentally compatible erosion controls, or removing nonindigenous plant or animal species.

“Erosion” means a process whereby wind, rain, water and other natural agents mobilize, transport, and deposit soil particles.

“Erosion hazard areas” means lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) as having “severe” or “very severe” erosion hazards and areas subject to impacts from lateral erosion related to moving water such as river channel migration and shoreline retreat.

“Estuarine wetland” means the zero-gradient sector of a stream where it flows into a standing body of water together with associated natural wetlands; tidal flows reverse flow in the wetland twice daily, determining its upstream limit. It is characterized by low bank channels (distributaries) branching off the main stream to form a broad, near-level delta; bank; bed and delta materials are silt and clay; banks are stable; vegetation ranges from marsh to forest; and water is usually brackish due to daily mixing and layering of fresh and salt water.

“Exotic” means any species of plants or animals that is not indigenous to the area.

“Farm pond” means an open water depression created from a non-wetland site in connection with agricultural activities.

“Feasible” means an action, such as a development project, mitigation, or preservation requirement that meets all of the following conditions:

1. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
2. The action provides a reasonable likelihood of achieving its intended purpose; and
3. The action does not physically preclude achieving the project’s primary intended legal use.

In cases where this chapter requires certain actions “unless they are infeasible,” the burden of proving infeasibility is on the applicant/ proponent. In determining an action’s infeasibility, the County may weigh the action’s relative costs and public benefits, considered in the short- and long-term time frames.

“Feasible alternative” means an action, such as development, mitigation, or restoration, that meets all of the following conditions: (1) the action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results; (2) the action provides a reasonable likelihood of achieving its intended purpose; and (3) the action does not physically preclude achieving the project’s primary intended legal use. Feasibility shall take into account both short- and long-term monetary and nonmonetary costs and benefits.

“Fen” means a mineral-rich wetland formed in peat that has a neutral to alkaline pH. Fens are wholly or partly covered with water and dominated by grass-like plants, grasses, and sedges.

“Fill material” means any solid or semisolid material, including rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure that, when placed, changes the grade or elevation of the receiving site.

“Filling” means the act of transporting or placing by any manual or mechanical means fill material from, to or on any soil surface, including temporary stockpiling of fill material.

“Fish and wildlife habitat conservation areas” are areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to: rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Counties and cities may also designate locally important habitats and species. “Fish and wildlife habitat conservation areas” does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company unless they meet the qualifications of WCC 16.16.710(B).

“Fish habitat” means a complex of physical, chemical, and biological conditions that provide the life-supporting and reproductive needs of a species or life stage of fish. Although the habitat requirements of a species depend on its age and activity, the basic components of fish habitat in rivers, streams, ponds, lakes, estuaries, marine waters, and nearshore areas include, but are not limited to, the following:

1. Clean water and appropriate temperatures for spawning, rearing, and holding;
2. Adequate water depth and velocity for migrating, spawning, rearing, and holding, including off-channel habitat;
3. Abundance of bank and in-stream structures to provide hiding and resting areas and stabilize stream banks and beds;

4. Appropriate substrates for spawning and embryonic development. For stream- and lake-dwelling fishes, substrates range from sands and gravel to rooted vegetation or submerged rocks and logs. Generally, substrates must be relatively stable and free of silts or fine sand;
5. Presence of riparian vegetation as defined in this article. Riparian vegetation creates a transition zone, which provides shade and food sources of aquatic and terrestrial insects for fish;
6. Unimpeded passage (i.e., due to suitable gradient and lack of barriers) for upstream and downstream migrating juveniles and adults.

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

“Floodplain” is synonymous with one hundred-year floodplain and means that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act. “Floodplain” means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

“Floodway” means the area, as identified in a master program, that either: (a) Has been established in federal emergency management agency flood insurance rate maps or floodway maps; or (b) Consists of those portions of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal condition, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition, topography, or other indicators of flooding that occurs with reasonable regularity, although not necessarily annually. Regardless of the method used to identify the floodway, the floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state. “Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one foot. Also known as the “zero rise floodway.”

“Forested wetland” means a wetland with at least 30% ~~percent~~ of the surface area covered by woody vegetation greater than 20 feet in height, excluding monotypic stands of red alder or cottonwood that average eight inches in diameter at breast height or less.

“Frequently flooded areas” means lands in the floodplain subject to a ~~one percent~~ 1% or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance and attenuation functions, as determined by the County in accordance with WAC ~~365-190-080~~(3). Classifications of frequently flooded areas include, at a minimum, the “special flood hazard area” designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

Comment [CES96]: Revised per language of WAC 173-26-020(20).

Comment [P/C97]: P/C moved to approve. Carries 9-0

“Function assessment” or “functions and values assessment” means a set of procedures, applied by a qualified consultant, to identify the ecological functions being performed in a wetland or other critical area, usually by determining the presence of certain characteristics, and determining how well the critical area is performing those functions. Function assessments can be qualitative or quantitative and may consider social values potentially provided by the wetland or other critical area. Function assessment methods must be consistent with best available science.

“Functions” means the processes or attributes provided by areas of the landscape (e.g., wetlands, rivers, streams, and riparian areas) including, but not limited to, habitat diversity and food chain support for fish and wildlife, groundwater recharge and discharge, high primary productivity, low flow stream water contribution, sediment stabilization and erosion control, storm and flood water attenuation and flood peak desynchronization, and water quality enhancement through biofiltration and retention of sediments, nutrients, and toxicants. These beneficial roles are not listed in order of priority.

“Functions, services, and value” means the beneficial functions that critical areas perform, the services they provide humans, and the values people derive from these roles including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, protection from hazards, providing historical and archaeological resources, noise and visual screening, open space, and recreation. These beneficial roles are not listed in order of priority.

“Game fish” means those species of fish that are classified by the Washington State Department of Wildlife as game fish (WAC [232-12-019](#)).

“Geologically hazardous areas” means areas that, because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

“Gradient” means a degree of inclination, or a rate of ascent or descent, of an inclined part of the earth’s surface with respect to the horizontal; the steepness of a slope. It is expressed as a ratio (vertical to horizontal), a fraction (such as meters/kilometers or feet/miles), a percentage (of horizontal distance), or an angle (in degrees).

“Grading” means any excavating or filling of the earth’s surface or combination thereof.

“Grazable acres” means both pasture and hay land as described in the Whatcom County Standard Farm Conservation Planning Workbook.

“Groundwater” means all water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves (Chapter [90.44](#) RCW).

“Groundwater management area” means a specific geographic area or subarea designated pursuant to Chapter [173-100](#) WAC for which a groundwater management program is required.

Planning Commission Approved Draft with DOE Required & Recommended Edits

SMP Update – WCC Ch. 16.16 Amendments

October 29, 2021

“Groundwater management program” means a comprehensive program designed to protect groundwater quality, to assure groundwater quantity, and to provide for efficient management of water resources while recognizing existing groundwater rights and meeting future needs consistent with local and state objectives, policies and authorities within a designated groundwater management area or subarea and developed pursuant to Chapter [173-100](#) WAC.

“Growing season” means the portion of the year when soil temperatures are above biologic zero (41 degrees Fahrenheit).

“Growth Management Act” means Chapters [36.70A](#) and [36.70B](#) RCW, as amended.

“Habitats of local importance” designated as fish and wildlife habitat conservation areas include those areas found to be locally important by Whatcom County pursuant to WCC [16.16.710](#)(C)(12).

“Hazard tree” (outside the shoreline jurisdiction) means a tree whose risk evaluation, as determined through a Whatcom County approved tree risk assessment method, is high. Risk evaluation is the combined measurement of: tree failure identification, probability of failure, potential damage to permanent physical improvements to property causing personal injury, and consequences. A tree that constitutes an airport hazard is considered a hazard tree. A hazard tree whose failure is imminent and consequences of damage to permanent physical improvements to property causing personal injury are significant is considered an emergency. “Imminent” in this instance means failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. Imminent may be determined by a qualified consultant (defined in this section) or when mutually agreed upon by a landowner and Whatcom County.

“Hazard tree” (within the shoreline jurisdiction) means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors, and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

“Hazardous substance” means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC [173-303-090](#) or [173-303-100](#).

“High intensity land use” means land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than one unit/acre), high-intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), hobby farms, and Class IV special forest practices, including the building of logging roads (note that pursuant to WCC [16.16.230](#)(A), all other forest practices are exempt from this chapter).

“Hydraulic project approval (HPA)” means a permit issued by the State Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter [75.20](#) RCW.

“Hydric soil” means a soil that is or has been saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall

Comment [P/C98]: P/C Motion to move these uses to moderate intensity land use definition. Motion carries 4-3-1-0

Comment [CES99]: They are not exempt; however, they do not require review under this chapter.

be determined following the methods described in the NRCS “Field Indicators of Hydric Soils” Version 7, and/or the Corps of Engineers Wetlands Delineation Manual, as amended.

“Hydrologic soil groups” means soils grouped according to their runoff-producing characteristics under similar storm and cover conditions. Properties that influence runoff potential are depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a low permeable layer. Hydrologic soil groups are normally used in equations that estimate runoff from rainfall, but can be used to estimate a rate of water transmission in soil. There are four hydrologic soil groups:

1. Low runoff potential and a high rate of infiltration potential;
2. Moderate infiltration potential and a moderate rate of runoff potential;
3. Slow infiltration potential and a moderate to high rate of runoff potential; and
4. High runoff potential and very slow infiltration and water transmission rates.

“Hydrophytic vegetation” means macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

“Hyporheic zone” means the saturated zone located beneath and adjacent to streams that contain some proportion of surface water from the surface channel. The hyporheic zone serves as a filter for nutrients, as a site for macroinvertebrate production important in fish nutrition and provides other functions related to maintaining water quality.

“Impervious surface” means a hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow compared to natural conditions prior to development. Common impervious surfaces may include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater. Impervious surfaces do not include surface created through proven low impact development techniques.

“In-kind compensation” means to replace critical areas with substitute areas whose characteristics and functions mirror those destroyed or degraded by a regulated activity.

“Infiltration” means the downward entry of water into the immediate surface of soil.

“Intertidal zone” means the substratum from extreme low water of spring tides to the upper limit of spray or influence from ocean-derived salts. It includes areas that are sometimes submerged and sometimes exposed to air, mud and sand flats, rocky shores, salt marshes, and some terrestrial areas where salt influences are present.

“Invasive species” means a species that is: (1) nonnative (or alien) to Whatcom County, and (2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes). Human actions are the primary means of invasive species introductions.

“Lahar” means a mudflow and debris flow originating from the slopes of a volcano.

“Lahar hazard area” means areas that have been or potentially could be inundated by lahars or other types of debris flows, according to a map showing volcano hazards from Mount Baker, Washington.

“Lake” means a naturally or artificially created body of deep (generally greater than 6.6 feet) open water that persists throughout the year. A lake is larger than a pond, greater than one acre in size, equal to or greater than 6.6 feet in depth, and has less than 30% ~~percent~~ aerial coverage by trees, shrubs, or persistent emergent vegetation. A lake is bounded by the ordinary high water mark or the extension of the elevation of the lake’s ordinary high water mark with the stream where the stream enters the lake.

“Landfill” means a disposal facility or part of a facility at which solid waste is permanently placed in or on land including facilities that use solid waste as a component of fill.

“Landslide” means a general term covering a wide variety of mass movement landforms and processes involving the downslope transport, under gravitational influence of soil and rock material en masse; included are debris flows, debris avalanches, earthflows, mudflows, slumps, mudslides, rock slides, and rock falls.

“Landslide hazard areas” means areas that, due to a combination of site conditions like slope inclination and relative soil permeability, are susceptible to mass wasting.

“Low intensity land use” means land use that includes the following uses or activities: forestry (cutting of trees only), low intensity open space (such as passive recreation and natural resources preservation), ~~and unpaved trails,~~ utility corridors without maintenance roads and little or no vegetation management, or similar uses that do not require land disturbance.

Comment [CES100]: Added to make consistent with DOE’s guidance.

“LWD” is an acronym for large woody debris.

“Maintenance or repair” means those usual activities required to prevent a decline, lapse or cessation from a lawfully established condition or to restore the character, scope, size, and design of a serviceable area, structure, or land use to a state comparable to its previously authorized and undamaged condition. This does not include any activities that change the character, scope, or size of the original structure, facility, utility or improved area beyond the original design.

“Major development” means any project for which a major project permit is required pursuant to WCC Chapter 20.88 ~~WCC~~. For the purposes of this chapter, “major development” shall also mean any project associated with an existing development for which a major development permit has been required or other existing legally nonconforming development for which a major development permit would otherwise be required if developed under the current land use regulations outlined in WCC Title 20.

“Mass wasting” means downslope movement of soil and rock material by gravity. This includes soil creep, erosion, and various types of landslides, not including bed load associated with natural stream sediment transport dynamics.

“Mature forested wetland” means a wetland with an overstory dominated by mature trees having a wetland indicator status of facultative (FAC), facultative-wet (FACW), or obligate (OBL). Mature trees are considered to be at least 21 inches in diameter at breast height.

“Maximum credible event” means the largest debris flow event that can be hypothesized from geologic processes within a watershed above an alluvial fan with consideration of the volume of sediment and debris that would be available within the drainage combined with material from landslides that would enter the drainage, and the volume of water that could become trapped behind and within the debris flow or dammed within the drainage.

“May” means the action is allowable, provided it conforms to the provisions of this title.

“Mean annual flow” means the average flow of a river or stream (measured in cubic feet per second) from measurements taken throughout the year. If available, flow data for the previous 10 years should be used in determining mean annual flow.

“Mitigation” means individual actions that may include a combination of the following measures, listed in order of preference:

1. Avoiding an impact altogether by not taking a certain action or parts of actions;
2. Minimizing impacts by limiting the degree or magnitude of an action and its implementation;
3. Rectifying impacts by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating an impact over time by preservation and maintenance operations during the life of the action;
5. Compensating for an impact by replacing or providing substitute resources or environments;
and
6. Monitoring the mitigation and taking remedial action when necessary.

“Mitigation bank” means a site where wetlands or similar habitats are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

“Mitigation bank instrument” means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The “bank instrument” describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

“Mitigation bank review team” or “MBRT” means an interagency group of federal, state, tribal and local regulatory and resource agency representatives that are invited to participate in negotiations with the bank sponsor on the terms and conditions of the bank instrument.

“Mitigation bank review team process” or “MBRT process” means a process in which the County and other agencies strive to reach consensus with the MBRT members on the terms, conditions, and procedural elements of the bank instrument.

“Mitigation bank sponsor” means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

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“Mitigation plan” means a detailed plan indicating actions necessary to mitigate adverse impacts to critical areas.

“Moderate intensity land use” means land use that includes the following uses or activities: residential (one unit/gross acre or less), moderate-intensity open space (parks with biking, jogging, etc.), moderate-intensity new agriculture (orchards, and hay fields, nurseries, raising and harvesting crops requiring annual tilling), and paved trails, building of logging roads, and utility corridors or rights-of-way shared by several utilities and including access/maintenance roads.

Comment [P/C101]: Motion to move these uses to moderate intensity land use definition. Motion carries 4-3-1-0

Comment [CES102]: Making consistent w/ DOE guidance.

“Monitoring” means evaluating the impacts of development proposals over time on the biological, hydrological, pedological, and geological elements of ecosystem functions and processes, and/or assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features compared to baseline or pre-project conditions and/or reference sites.

“Native vegetation” means plant species that are indigenous to Whatcom County and the local area.

“Nearshore habitat” means the zone that extends seaward from the marine shoreline to a water depth of approximately 20 meters (66 feet). Nearshore habitat is rich biologically, providing important habitat for a diversity of plant and animal species.

“No net loss” means the maintenance of the aggregate total of the County’s critical area functions and values as achieved through a case-by-case review of development proposals. Each project shall be evaluated based on its ability to meet the no net loss goal.

“Off-site mitigation” means to replace critical areas away from the site on which a critical area has been adversely impacted by a regulated activity.

“Ongoing agriculture” means those activities conducted on lands defined in RCW [84.34.020](#)(2), and those activities involved in the production of crops and livestock, including, but not limited to, operation and maintenance of existing farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use, or has lain idle for more than five consecutive years unless that idle land is registered in a federal or state soils conservation program. Forest practices are not included in this definition.

“Ordinary high water mark” means the mark or line on all lakes, rivers, streams, and tidal water that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland in respect to vegetation (RCW [90.58.030](#)(2)(b)).

“Person” means any individual, trustee, executor, other fiduciary, corporation, firm, partnership, association, organization, or other entity, either public or private, acting as a unit cooperative, public

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or municipal corporation, state agency or local governmental unit, however designated, or Indian nation or tribe.

Comment [CES103]: Making consistent w/ other Titles.

“Planned unit development (PUD)” means one or a group of specified uses, such as residential, resort, commercial or industrial, to be planned and constructed as a unit. Zoning or subdivision regulations with respect to lot size, building bulk, etc., may be varied to allow design innovations and special features in exchange for additional and/or superior site amenities or community benefits.

“Planning advisor” means those qualified individuals who have technical experience and training necessary to prepare conservation farm plans for agricultural lands and who have been certified a technical service provider by the USDA Natural Resources Conservation Service (see <http://techreg.usda.gov>) and signed the practice and confidentiality agreement.

“Pond” means an open body of water, generally equal to or greater than 6.6 feet deep, that persists throughout the year and occurs in a depression of land or expanded part of a stream and has less than 30% percent aerial coverage by trees, shrubs, or persistent emergent vegetation. Ponds are generally smaller than lakes. Farm ponds, ponds built for the primary purpose of combating fires, stormwater facilities, and beaver ponds less than two years old are excluded from this definition.

“Potable” means water that is suitable for drinking by the public (Chapter [246-290](#) WAC).

“Preservation” means actions taken to ensure the permanent protection of existing, ecologically important critical areas and/or buffers that the County has deemed worthy of long-term protection.

“Primary association” means the use or potential use of a habitat area by a listed or priority species for breeding/spawning, rearing young, resting, roosting, feeding, foraging, and/or migrating on a frequent and/or regular basis during the appropriate season(s) as well as habitats that are used less frequently/regularly but which provide for essential life cycle functions such as breeding/nesting/spawning.

“Priority habitat” means a habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes: comparatively high fish or wildlife density; comparatively high fish or wildlife species diversity; fish spawning habitat; important wildlife habitat; important fish or wildlife seasonal range; important fish or wildlife movement corridor; rearing and foraging habitat; important marine mammal haulout; refuge; limited availability; high vulnerability to habitat alteration; unique or dependent species; or shellfish bed. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows). A priority habitat may also be described by a successional stage (such as old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife (WAC [173-26-020](#)(24)).

“Priority species” means wildlife species of concern due to their population status and their sensitivity to habitat alteration, as defined by the Washington State Department of Fish and Wildlife.

“Project” means any proposed or existing activity regulated by Whatcom County.

“Project permit” or “project permit application” means any land use or environmental permit or approval required by Whatcom County, including, but not limited to, building permits, subdivisions, binding site plans, planned unit developments, conditional uses, shoreline substantial development permits, variances, lot consolidation relief, site plan review, permits or approvals authorized by a comprehensive plan or subarea plan.

“Qualified professional” or “qualified consultant” means a person with experience and training with expertise appropriate for the relevant critical area subject in accordance with WAC [365-195-905\(4\)](#). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, soil science, engineering, environmental studies, fisheries, geology, geomorphology or a related field, and related work experience, and meet the following criteria:

1. Is listed on a roster of qualified professionals or qualified consultants prepared by the ~~PDS Natural Resource Supervisor~~ Director.
2. A qualified professional for wetlands must have a degree in wildlife biology, ecology, soil science, botany, or a closely related field and a minimum of five years of professional experience in wetland delineation and assessment associated with wetland ecology in the Pacific Northwest or comparable systems. The following is required to be submitted to be placed on the roster:
 - a. Curriculum vitae or resume;
 - b. Three complete and approved wetland delineations (as primary author on at least one), conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual, 1987, or as amended; and
 - c. One complete and approved wetland delineation using the U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, 2010, or as amended. Successful completion of a wetland class using this manual may be substituted for this requirement.
3. A qualified professional for habitat conservation areas must have a degree in wildlife biology, ecology, fisheries, or a closely related field and a minimum of three years of professional experience related to the subject species/habitat type or approved equivalent work experience.
4. A qualified professional for geologically hazardous areas must be a professional engineering geologist or geotechnical engineer, licensed in the state of Washington.
5. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydrogeologist, geologist, or engineer.
6. A qualified professional for tree risk assessment means a certified arborist or certified tree professional with a current ISA Tree Risk Assessment Qualification.
7. Anyone who has had their professional licensure, ~~or certification, professional membership~~ revoked for violations of the provisions of their professional licensure, certification, or professional membership does not meet the definition of a qualified professional or qualified consultant.

“RCW” is an acronym for Revised Code of Washington.

“Reasonable use” means a property that is deprived of all reasonable use when the owner can realize no reasonable return on the property or make any productive use of the property. “Reasonable return” does not mean a reduction in value of the land, or a lack of a profit on the purchase and sale of the property, but rather, where there can be no beneficial use of the property; and which is attributable to the implementation of the critical areas ordinance.

“Reasonable use exception” means an exception to the standards of this title that allows for any one of the uses allowed within a given zoning designation which cannot otherwise conform to the requirements set forth in this title, including the variance criteria; that have the least impact on the critical areas found on the subject property.

“Recharge” means the process involved in the absorption and addition of water from the unsaturated zone to groundwater.

“Reestablishment” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former critical area. Reestablishment results in rebuilding a former critical area and results in a gain in acres and functions. Activities could include removing fill, plugging ditches, or breaking drain tiles.

“Rehabilitation” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded critical area. Rehabilitation results in a gain in function but does not result in a gain in area. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.

“Resident fish” means a fish species that completes all stages of its life cycle within freshwater and frequently within a local area.

“Restoration” means measures taken to restore an altered or damaged natural feature, including:

1. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and
2. Actions performed to reestablish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, or catastrophic events.

“Retroactive Permit” means a permit applied for after the development, use, or activity has occurred, generally to bring such development, use, or activity into compliance through code enforcement.

“Rills” means steep-sided channels resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery. Rill erosion tends to occur on slopes, particularly steep slopes with poor vegetative cover.

“Riparian corridor” or “riparian zone” means the area adjacent to a water body (stream, lake or marine water) that contains vegetation that influences the aquatic ecosystem, nearshore area and/or fish and wildlife habitat by providing shade, fine or large woody material, nutrients, organic debris, sediment filtration, and terrestrial insects (prey production). Riparian areas include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic

ecosystems (i.e., zone of influence). Riparian zones provide important wildlife habitat. They provide sites for foraging, breeding and nesting; cover to escape predators or weather; and corridors that connect different parts of a watershed for dispersal and migration.

“Riparian vegetation” means vegetation that tolerates and/or requires moist conditions and periodic free-flowing water, thus creating a transitional zone between aquatic and terrestrial habitats which provides cover, shade and food sources for aquatic and terrestrial insects for fish species. Riparian vegetation and their root systems stabilize stream banks, attenuate high water flows, provide wildlife habitat and travel corridors, and provide a source of limbs and other woody debris to terrestrial and aquatic ecosystems, which, in turn, stabilize stream beds.

“Scrub-shrub wetland” means a wetland with at least 30% ~~percent~~ of its surface area covered by woody vegetation less than 20 feet in height as the uppermost strata.

“Seiche” is a standing wave in an enclosed or partially enclosed body of water. Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors. Seiches and seiche-related phenomena have been observed on lakes, reservoirs, swimming pools, bays, harbors and seas. The key requirement for formation of a seiche is that the body of water be at least partially bounded, allowing the formation of the standing wave.

“Seismic hazard areas” means areas that are subject to severe risk of damage as a result of earth-quake-induced ground shaking, slope failure, settlement, or soil liquefaction.

“SEPA” is a commonly used acronym for the State Environmental Policy Act.

“Shellfish” means invertebrates of the phyla Arthropoda (class Crustacea), Mollusca (class Pelecypoda) and Echinodermata.

“Shellfish habitat conservation areas” means all public and private tidelands suitable for shellfish, as identified by the Washington State Department of Health classification of commercial growing areas, and those recreational harvest areas as identified by the Washington State Department of Ecology are designated as shellfish habitat conservation areas pursuant to WAC [365-190-80](#). Any area that is or has been designated as a shellfish protection district created under Chapter [90.72](#) RCW is also a shellfish habitat conservation area.

“Shellfish protection district” means the Drayton Harbor shellfish protection district (DHSPD) and the Portage Bay shellfish protection district (PBSPD) (~~WCC Chapter 16.20-WCC~~), or other area formed by the County based on RCW Title [90](#), in response to State Department of Health (DOH) closures or downgrades of a commercial shellfish growing area due to a degradation of water quality as a result of pollution. These areas include the watershed draining to the shellfish beds as part of the shellfish habitat conservation area.

“Shorelands” or “shoreland areas” means those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters which are subject to the provisions of Chapter [90.58](#)RCW.

“Shoreline” (Shoreline Management Act) means all of the water areas of the state, including reservoirs and their associated wetlands, together with lands underlying them, except:

1. Shorelines on segments of streams upstream from a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and
2. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shorelines” means all of the water areas of the state as defined in RCW [90.58.030](#), including reservoirs and their associated shorelands, together with the lands underlying them, except:

1. Shorelines of statewide significance;
2. Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second (cfs) or less and the wetlands associated with such upstream segments; and
3. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shoreline Jurisdiction.” See WCC [23.20.010](#).

“Shorelines of statewide significance” means those areas defined in RCW [90.58.030](#)(2)(e).

“Shorelines of the state” means the total of all “shorelines,” as defined in RCW [90.58.030](#)(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW [90.58.030](#)(2)(e).

“Single-family development” means the development of a single-family residence permanently installed and served with utilities on a lot of record.

“Site” means any parcel or combination of contiguous parcels, or right-of-way or combination of contiguous rights-of-way, under the applicant’s/proponent’s ownership or control that is the subject of a development proposal or change in use.

“Slope” means:

1. Gradient.
2. The inclined surface of any part of the earth’s surface, delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

“Soil” means all unconsolidated materials above bedrock described in the Soil Conservation Service Classification System or by the Unified Soils Classification System.

“Special Flood Hazard Area (SFHA)” means the area that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood. On the FIRM maps, SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30.

“Species of local importance” are those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.

“Sphagnum bog” means a type of wetland dominated by mosses that form peat. Sphagnum bogs are very acidic, nutrient-poor systems, fed by precipitation rather than surface inflow, with specially adapted plant communities.

“Stormwater Manual” or “Stormwater Management Manual for Western Washington” means the version of the Department of Ecology’s Stormwater Management Manual for Western Washington most recently adopted by council.

“Streams” means those areas where surface water flows are sufficient to produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. This definition is not meant to include ditches or other artificial water courses unless they are used to convey streams naturally occurring prior to human alteration, and/or the waterway is used by anadromous or other fish populations, or flows directly into shellfish habitat conservation areas.

“Structure” means a permanent or temporary building or edifice of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner whether installed on, above, or below the surface of the ground or water, except for vessels.

“Substantially Developed Surface” is a legally established area of non-vegetated impervious surface.

“Surface waters of state.” See definition for “waters of the state”

“Survey” means one of the following:

1. Mapping using a compass and tape; or
2. Mapping using a smart phone or hand held GPS; or
3. A survey completed by a licensed surveyor.

“Swale” means a shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

~~“Technical administrator” means the director of the planning and development services department or staff member designated by the director to perform the review functions required in this chapter.~~

Comment [CES104]: Term no longer used; replaced by “director.”

“Toe” means the lowest part of a slope or cliff; the downslope end of an alluvial fan, landslide, etc.

“Top” means the top of a slope; or in this chapter it may be used as the highest point of contact above a landslide hazard area.

“Unavoidable” means adverse impacts that remain after all appropriate avoidance and minimization measures have been implemented.

“USDA” is an acronym for the United States Department of Agriculture

“Utilities” means all lines and facilities used to distribute, collect, transmit, or control electrical power, natural gas, petroleum products, information (telecommunications), water, and sewage.

“Volcanic hazard areas” means geologically hazardous areas that are subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.

“WAC” is an acronym for Revised Code of Washington.

“Waters of the state” or “state waters” means all lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and other surface waters and watercourses within the jurisdiction of Washington State (RCW 90.48.020). ~~salt and freshwaters waterward of the ordinary high water line and within the territorial boundary of the state.~~

“Watershed” means a geographic region within which water drains into a particular river, stream or body of water. There are approximately 122 watersheds (e.g., Bertrand, Ten Mile, Dakota, Canyon Creek, Lake Whatcom, Lake Samish) identified in WRIA 1 and 3. These are nested within approximately 14 sub-basins (e.g., North Fork Nooksack, Drayton Harbor, Sumas River, Friday Creek), which are nested within four basins (e.g., Nooksack River, Fraser River, Samish River, coastal).

“Watershed improvement district” means a special district established pursuant to Chapter [85.38](#) RCW citation.

“WDFW” is an acronym for the Washington State Department of Fish and Wildlife.

“Wellhead protection area” means the area (surface and subsurface) managed to protect ground-water-based public water supplies.

“Wet meadow” means palustrine emergent wetlands, typically having disturbed soils, vegetation, or hydrology.

“Wet season” means the period generally between November 1st and March 30th of most years when soils are wet and prone to instability. The specific beginning and end of the wet season can vary from year to year depending on weather conditions.

“Wetland” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, retention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands include those artificial wetlands intentionally created to mitigate wetland impacts.

“Wetland buffer” means a designated area contiguous or adjacent to a wetland that is required for the continued maintenance, function, and ecological stability of the wetland.

“Wetland class” means the general appearance of the wetland based on the dominant vegetative life form or the physiography and composition of the substrate. The uppermost layer of vegetation that

possesses an aerial coverage of ~~30% percent~~ or greater of the wetland constitutes a wetland class. Multiple classes can exist in a single wetland. Types of wetland classes include forest, scrub/shrub, emergent, and open water.

“Wetland delineation” means the precise determination of wetland boundaries in the field according to the application of specific methodology as described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised, and the mapping thereof.

“Wetland edge” means the boundary of a wetland as delineated based on the definitions contained in this chapter.

Wetland Enhancement. See “mitigation.”

“Wetland mitigation bank” means a site where wetlands and buffers are restored, created, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

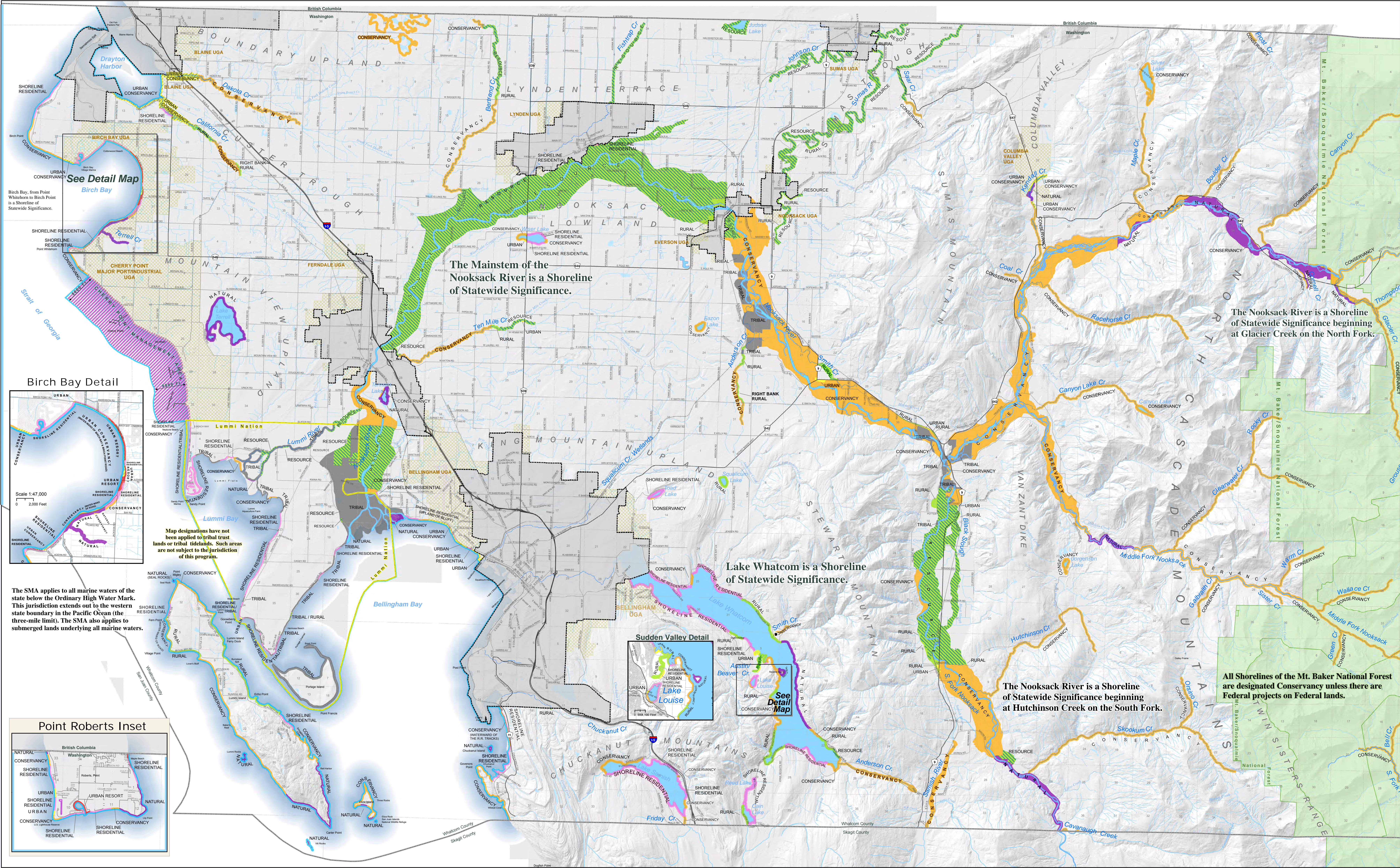
Wetland Restoration. See “mitigation” and “reestablishment.”

“Windthrow” means a natural process by which trees are uprooted or sustain severe trunk damage by the wind.

“Wood waste” means solid waste consisting of wood pieces or particles generated as a byproduct or waste from the manufacturing of wood products, handling and storage of raw materials and trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

“WRIA” is an acronym for Water Resource Inventory Area

DRAFT Shoreline Environment Designations 2/24/2021



Official Shoreline Map

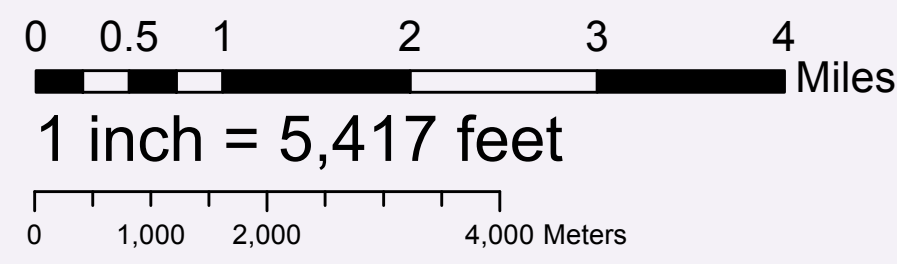
Shoreline Area Designations

- Urban
- Urban Resort
- Urban Conservancy

- Shoreline Residential
- Rural
- Resource
- Conservancy

- Natural
- Tribal
- Cherry Point Mgmt. Area
- Aquatic

- Lummi Nation Boundaries
- City Boundaries
- Urban Growth Area

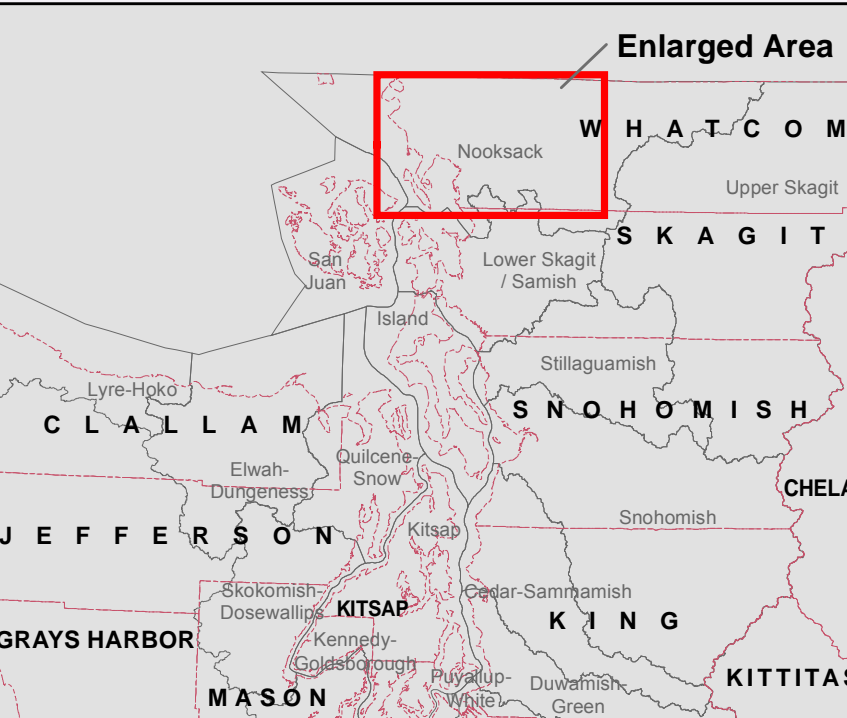


About this Map:
The information depicted on this map is intended to be used with Whatcom County's Shoreline Management Plan, adopted May 27, 1976. Revised to comply with Washington Administrative Code 173-28. Approved by Department of Ecology.

Shoreline Jurisdiction:
The purpose of the official shoreline environment designations map is to depict graphically those areas of Whatcom County falling under the jurisdiction of this program, and the shoreline environment designations of those areas. The map does not necessarily identify or depict the lateral extent of shoreline jurisdiction nor does it identify all associated wetlands. The lateral extent of the shoreline jurisdiction shall be determined on a case-by-case basis based on the location of the ordinary high water mark (OHWM), floodway, floodplain, and presence of associated wetlands.

USE OF WHATCOM COUNTY'S MAP IMPLIES THE USER'S AGREEMENT WITH THE FOLLOWING STATEMENT:
Whatcom County disclaims any warranty of merchantability or warranty of fitness of this map for any particular purpose, either express or implied. No representation or warranty is made concerning the accuracy, currency, completeness or quality of data depicted on this map. Any user of this map assumes all responsibility for use thereof, and further agrees to hold Whatcom County harmless from and against any damage, loss, or liability arising from any use of this map.

Puget Sound Area Map



SMP Periodic Update 2020

Exhibit H: Written Public Comments on the Draft Amendments received by staff (updated 9/20/2021 to include P/C Hearing testimony)

(Note: Some section numbers in the draft documents have been revised after some of the earlier comments were received and may no longer be accurate.)

Comment #	Commenter	Date	Exhibit	Section	Comment (Abbreviated; please see original correspondence for exact language, supporting arguments, and/or supporting material citations.)	Staff Response
BP01	Jeff Chalfant, BP	9/18/20	B	C/P Ch. 11	Removal of "policies" from code and moving it to the Comprehensive Plan – County staff confirmed that all language was transferred to Comp Plan without edits (except for grammatical corrections).	Correct.
BP02	Jeff Chalfant, BP	9/18/20	D	23.20.050(B)(10)	Adding Cherry Point Management Area as a new "Shoreline Environment" – County staff confirmed that this is a simplification step and that no changes to permitted uses or development were made.	Correct. While the CPMA was treated like an environment designation, it just wasn't called out as such.
BP03	Jeff Chalfant, BP	9/18/20	D	23.30.030(D), 23.40.125(E)(1)(e), 23.40.150(C)(2), 23.40.210(B)(8)	The use of galvanized steel appears to be a newly prohibited material for use in or above shoreline. While we understand the limitation for the use of such materials in water there are no feasible alternatives for use above the water on our pier for equipment and structural components. It is our understanding based on our discussion that our comment is consistent with feedback received from the Parks Department and was not the intent and that an adjustment to the language will be made to allow for use above the water.	We have removed the (newly added) prohibition on galvanized steel, as we could find no mention of it in state law or guidance.
BP04	Jeff Chalfant, BP	9/18/20	D	23.30.040(I) & 23.40.020(F)(4)	Fences and signs have specific limitations in terms of size, height, and setback that cannot be accommodated due to requirements of the Coast Guard and other Federal agencies associate with industrial security requirements. We recommend the addition of a provision that will allow for the construction of security fencing and signage required by such regulations including Chemical Facility Anti-Terrorism Standards (CFATS) codified a 6 CFR, Part 27.	Based on this comment we have added to 23.40.020(F)(9) (Shoreline Bulk Provisions) "provided, that the Director may exempt security fencing from this requirement as required by federal or state regulations" to acknowledge that in certain circumstances higher fences may be allowed. Additionally, we have added "Signage required by state or federal security requirements" as an exemption to 20.40.020(F)(10)(b)).

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BP05	Jeff Chalfant, BP	9/18/20	D	23.40.010(B)	<i>Table 1 – Shoreline uses for Cherry Point Environment Area</i> Fill and Excavation activities are shown as a prohibited use. However, there are development activities that are permitted within the Cherry Point Environment that require the use of fill and excavation. County staff acknowledged this discrepancy as unintentional and will amend the language to ensure that fill and grading activities are allowed as a part of approved use and development.	The existing regulation in 23.40.125(E)(3) has always said that fill is prohibited in the CPMA, though provides an exception of “the minimum necessary to access piers or other structures that provide access to the water.” We believe this covers your concern. We have, however, clarified that “fill or excavation waterward of the OHWM requires a shoreline conditional use permit,” which is a requirement of the SMA. In the Use Table 1 we have also changed it to be “X/C*,” meaning that fill and excavation is prohibited except as otherwise permitted by the specific regulations (i.e., 23.40.125(E)(3))
BP06	Jeff Chalfant, BP	9/18/20	D	23.40.010	<i>Table 1 – Shoreline uses for Cherry Point Environment Area, Shoreline Stabilization</i> Revetments are shown as a prohibited use; however, bulkheads are allowed as a conditional use. The definition of bulkheads indicates that revetments are sometimes bulkheads. We understand that this is an unintended circular reference and that the County will amend the definition of bulkhead to remove the reference to revetments and replace with a more appropriate reference to the use of rip rap.	We have struck “such as a revetment or seawall” from the definition of bulkhead (20.60.020(16)) to address this circular inconsistency.
BP07	Jeff Chalfant, BP	9/18/20	D	23.40.010	<i>Table 1 – Shoreline uses for Cherry Point Environment Area, Industrial Moorage</i> The heading of the table indicates industrial moorage includes piers, docks and buoys. The definition of pier indicates that it includes other structures not normally considered to fit Ecology’s definition of a pier such as mooring buoys. County staff clarified that the intent was not to prohibit the installation of buoys and that the definition for piers will be amended to be consistent with the Ecology definition and that it will be clarified that buoys are permitted in the Cherry Point Management Area.	We have deleted the term “recreational” in reference to mooring buoys in Table 1 and added a P (permitted) in the Cherry Point Environment. Additionally, we have modified Table 1 to indicate that mooring buoys are not included as general public, commercial, or industrial moorage for the purposes of the table; the mooring buoys row does.
DOEWG01	Nate Brown, DOE	9/21/20	F	16.16.630	We acknowledge and support the County’s proposed adoption	Comment noted.

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	Wetlands Group				of buffer tables from Ecology's Wetland Guidance. This approach provides the most flexibility by basing the widths of buffers on three factors: the wetland category, the intensity of the impacts, and the functions or special characteristics of the wetland.	
DOEWG02	Nate Brown, DOE Wetlands Group	9/21/20	F	16.16.225(8)	<p>We are particularly concerned about the provision allowing alteration of "functionally disconnected"...wetlands. This term appears to be undefined in the CAO. In addition, there are no acreage thresholds for this provision. Nor is there apparent consideration that wetlands that are unconnected to larger undisturbed landscapes can still provide important functions, specifically water quality and hydrologic storage. Additionally, some Category III wetlands may provide high habitat functions, which warrant larger buffers, not weaker protections.</p> <p>We also note that this change does not appear to be supported by any findings in the Whatcom County Best Available Review: Addendum to the 2005 BAS Report. Nor does this approach align with the strategies detailed in the Birch Bay Watershed Characterization and Watershed Planning Pilot Study: https://fortress.wa.gov/ecy/publications/documents/0706030.pdf.</p> <p>We offer the following questions in an attempt to better understand the County's rationale for this approach:</p> <ul style="list-style-type: none"> • What scientific basis is there for reducing protections on these wetlands? • Has any analysis been conducted to indicate these wetlands are not important resources in the UGA? • Has any analysis been conducted of how many wetlands would be affected and what the functions and values of those wetlands are? • Would mitigation be required to occur within the UGAs? If not, what are the cumulative effects of large-scale loss of wetlands in the UGAs in the County? <p>In the absence of this information it is unclear how implementation of this provision could achieve No Net Loss of ecological function. In addition, the concept of functional isolation cannot</p>	Deleted "functionally disconnected" and amended as per conversation with DOE staff.

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					<p>be applied in SMA jurisdiction since all wetlands within that area are considered associated wetlands, by definition.</p> <p>We recommend the County either conduct a more refined analysis and resulting policy, informed by existing special studies, to develop a scientifically-based approach, or delete subsection (8) from the draft.</p>	
DOEWG03	Nate Brown, DOE Wetlands Group	9/21/20	F	16.16.640(C)(1)	<p><i>Buffer width reduction</i></p> <p>We are concerned about the apparently redundant and potentially additive buffer reduction that is allowed by this section. We cannot determine whether subsection (C)(1) can be applied in addition to the Ecology-recommended buffer reduction strategy listed in subsection (C)(2).</p> <p>If they can both be applied to a single project then they would result in buffers that are well below what science says is necessary to protect wetland functions. For example, in the current draft, a 150-foot buffer for a Category 3 wetland that has moderate habitat function adjacent to high intensity land use. Allowing this buffer to be reduced to 75 feet through additive reductions in (1) and (2) will not provide a buffer adequate to protect the wetlands' habitat functions.</p> <p>We recommend that the language, with respect to these two reduction strategies, be clarified such that they cannot be applied to the same proposal.</p>	Amended as per conversation with DOE staff to clarify that buffer reductions are not additive.
DOEWG04	Nate Brown, DOE Wetlands Group	9/21/20	F	16.16.640(C)(2)	<p>May allow High Impact uses to be reduced to Moderate buffer width if Ecology's minimizing measures are implemented. Per Ecology's CAO guidance, in addition to the minimizing measures, there must be a relatively intact corridor between the wetland and other wetland/priority habitat. Additionally, as worded in the draft regs, this provision does not imply how the applicant chooses which measures to incorporate into the proposal or how many. The wording should be modified to encourage all reasonable/applicable measures. As currently worded, an applicant may argue for the reduction based on minimal measures.</p>	Amended as per conversation with DOE staff to meet DOE guidance.
DOEWG05	Nate Brown, DOE	9/21/20	F	16.16.640(C)(3)	<p>If a buffer width is reduced, then any remaining "substantial"</p>	Deleted "substantial" and amended as

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	Wetlands Group				(needs a definition) portion of the buffer that is degraded shall be replanted with native vegetation. It is unclear how this relates to buffer mitigation ratios described in 16.16.680(H). The addition of a statement clarifying the applicability of buffer mitigation ratios is needed.	per conversation with DOE staff.
FSJ01	Level Pratt, Friends of the San Juans	9/16/20	F	16.16.710(C)(2)	<p>In the Fish and Wildlife section of the CAO of the SMP (Ch. 16.16), the County mentions ESA-listed species managed by U.S. Fish and Wildlife, but makes no mention of NOAA Fisheries ESA involvement or authority. Further, the County fails to explicitly acknowledge that the marine nearshore is NOAA Fisheries designated critical habitat for Puget Sound Chinook salmon (Figure attached). Research has clearly demonstrated the importance of the marine and estuarine nearshore to the sustainability and recovery of Puget Sound Chinook.</p> <p>To more fully support Chinook and Southern Resident orca recovery, as well as meeting Goals 10A and 10K of the Shoreline Master Program (see also WAC 173-26-221(2)(C)(iii)), Friends of the San Juans recommends the following revision (new text underlined) in WCC §23.05.065(A):</p> <p>16.16.710(C)(2) Areas in which federally listed species are found, have a primary association with, or contain suitable habitat for said listed species, as listed in the U.S. Fish and Wildlife's Threatened and Endangered Species List or Critical Habitat List (http://ecos.fws.gov/ecp/) or the National Marine Fisheries Service (NMFS) (https://www.fisheries.noaa.gov/species-directory/threatened-endangered), as amended. <u>Note: As of September 2005, NMFS designated the estuarine and marine nearshore environment (extreme high water to a depth of approximately 30 meters mean lower low water, as Puget Sound Chinook Critical Habitat (see Federal Register / Vol. 70, No. 170, 9/2/05) that includes most of the Whatcom County estuarine and marine coastline.</u></p>	We have amended the section (though in practice we've always looked at both lists).
FSJ02	Level Pratt, Friends of the San Juans	9/16/20	F	16.16.225(B)(8)	We also have concerns about a provision in the CAO that is proposed to be incorporated into the SMP that allows for "Alteration of functionally disconnected Type III or IV wetlands when	Based on this and discussions with DOE staff, we have deleted "functionally disconnected" from this provision. Addition-

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					associated with an approved commercial development within an Urban Growth Area;" (WCC §16.16.225.B.8). There is no explanation or definition of a "functionally disconnected" wetland. It is our understanding that they do not exist in the shoreline jurisdiction. The fact they're in the shoreline assumes a functional relationship. We respectfully recommend that the County cite this CAO section as excepted (not included) in the SMP (WCC §23.05.065.A).	ally, based on communication with DOE staff, we have added that the wetlands have to have a habitat score of less than 6 to qualify.
FW/WEC01	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	B	C/P Ch. 11	<p>We strongly support the Climate Change/Sea Level Rise policies with necessary improvements.[They go on to explain why addressing this is important, their interpretation of state requirements, and supporting material.]</p> <p>But more is needed. It is important that wetland and aquatic vegetation be allowed to occur to maintain shoreline functions and values. So we recommend the addition of the following policy on page 11-31 of the PDF version to read as follows.</p> <p><u>Policy 11AA-8: New lots and new and expanded development should be located so they will not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises.</u></p>	This is a policy decision and all comments will be forwarded to the P/C and Council.
FW/WEC02	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	B	C/P Ch. 11	<p>We recommend that proposed Policy 11AA-5 be modified to read as follows:</p> <p>Policy 11AA-5: <u>Whatcom County shall monitor the impacts of climate change on Whatcom County's shorelands, the shoreline master program's ability to adapt to sea level rise, and other aspects of climate change at least every periodic update, and revise the shoreline master program as needed.</u> Whatcom County shall <u>should</u> periodically assess the best available sea level rise projections and other sciences related to climate change within shoreline jurisdiction, and incorporate them into future program updates, as relevant.</p>	This is a policy decision and all comment will be forwarded to the P/C and Council.
FW/WEC03	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.05.130(A)	<p>Modify the property rights section so that it is consistent with state and federal law.</p> <p>Proposed 23.05.130(A) would provide that the regulation of private property must be consistent with all relevant constitu-</p>	Our attorney believes that this language does not allow the County to override the SMP. It simply states a legal truth—that regulation of property must be consistent

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					tional and other legal limitations including local laws. This provision would allow W/C to adopt policies or regulations that override the Ecology's approved SMP. This violates the SMA and cannot be adopted.	with other laws. This does not somehow give the County permission to amend the SMP without Ecology's approval.
FW/WEC04	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.05.130(E)	Proposed 23.05.130(E) provides that this "program shall not be applied retroactively in a way that requires lawfully existing uses and developments (as of the original effective date of this program) to be removed." This provision will prevent the amortization of existing uses in hazardous areas, such as channel migration zones, frequently flooded areas, and areas subject to sea level rise. This would allow frequently flooded homes to always be rebuilt, no matter the hazard. This is poor policy and should not be adopted.	Our attorney agrees with the commenter on this matter; we have removed (E).
FW/WEC05	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.10.030(C)(2)	Proposed 23.10.030(C)(2) provides "that substantive amendments shall become effective immediately upon adoption by the Department of Ecology." But all SMP amendments must be approved by Ecology and become effective 14 days after Ecology adopts them. Proposed 23.10.030(C)(2) should be modified to reflect these requirements.	The commenter is correct. Though we'd amended similar language in 23.05.090 to meet this requirement, we missed it in this section. The section has now been revised.
FW/WEC06	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.10.030(C)(3)	Proposed 23.10.030(C)(3) provides that the County Council makes final decisions on shoreline conditional use permits and variances. Ecology must approve both conditional use permits and variances. So this section should provide that these are final County decisions, not final decisions on the permits.	The commenter is correct. Though proposed Ch. 22.07 correctly spells it out, we missed it in this section. The section has now been revised.
FW/WEC07	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.30.010(B)	Modify so that it is consistent with the SMA and SMP Guidelines. The WA Court of Appeals has held that "reasonable and appropriate uses should be allowed on the shorelines <i>only if they will result in no net loss of shoreline ecological functions and systems</i> . See RCW 90.58.020; WAC 173-27-241(3)(j)." However proposed 23.30.010(B) exempts development, use, and activities within the shoreline jurisdiction and within "legally existing substantially developed areas" from the no net loss requirement. This violates the SMA and SMP Guidelines cited by the court of appeals. Proposed 23.30.010(B) also ignores avoidance and minimization and can be read to exempt development in critical areas from the no net loss standard. We rec-	We have amended the text as the commenter has suggested.

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					omment that proposed 23.30.010(B) be modified to read as follows: B. Development, use, and activities within the shoreline jurisdiction and outside of critical areas and legally existing substantially developed areas shall avoid and minimize adverse impacts, and any unavoidable impacts shall be mitigated to meet no net loss of ecological function and ecosystem-wide processes pursuant to WAC 173-26-186.	
FW/WEC08	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.30.010(B)	The mitigation sequencing requirement in <i>existing</i> WCC 23.30.010(B) must be retained or included elsewhere in the SMP regulations. Mitigation sequencing applies to all development in shorelines jurisdiction, not just development that adversely impacts critical areas. Deleting existing WCC 23.30.010(B) and relying only on the critical areas regulations violates WAC 173-26-201(2)(e)(ii)(A) and other provisions of the SMP Guidelines.	WAC 173-26-201(2)(e)(ii)(A) seems to be addressing how one applies mitigation sequencing to mitigation applied through SEPA review for those types of impacts not regulated by the SMP (e.g., traffic impacts). The County has already adopted WAC 197-11-768 by reference in our SEPA regulations (WCC 16.08.175).
FW/WEC09	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.30.050 Ch. 16.16	We recommend that shoreline jurisdiction be expanded to include the 100-year floodplain and that the buffers for river and stream shoreline be increased to use the newly recommended 200-year SPTH of 204 feet and that this width should be measured from the edge of the channel, channel migration zone, or active floodplain whichever is wider. This will help maintain shoreline functions and Chinook habitat.	Proposed WCC 23.20.010(B)(4 lists the shoreline jurisdiction as including "floodways and contiguous floodplain areas landward <i>two hundred feet from such floodways</i> ," straight from RCW 90.58.030. The 204 ft. referenced is not a hard SPTH; this is the weighted 3 rd Quantile. WDFW Vol 2 provides a step by step process to determine the Riparian Management Area for a parcel based on the ability of a given soil type to support tree growth. The 200 yr. index curve is variable, and as shown in Figure A2-33 the SPTH in Whatcom Co. ranges from 101' to 250'. The buffer on Type S Freshwater is proposed to be 200 feet (16.16.740(B), Table 4), measured, presumably, from the edge of the floodway.
FW/WEC10	Tim Trohimovich, Fu-	9/16/20	D	23.30.060	We strongly support the amendments to 23.30.060 to require	This section was developed in consulta-

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	turewise, and Rein Attemann, Washington Environmental Council				review of sites that may have cultural or archaeological resources but are concerned that the SMP update deletes the inadvertent discovery requirements in the existing SMP. Even with predevelopment review, cultural resources can still be inadvertently discovered. Proposed WCC 23.30.606 provides that certain state and federal inadvertent discovery provisions apply, but they delete the County's provisions. This will prevent Whatcom County from requiring compliance with the inadvertent discovery requirements. So we recommend that the existing inadvertent discovery requirements in "B" be retained so the County can effectively address the inadvertent discovery of cultural resources.	tion with the Lummi Nation Tribal Historic Preservation Office and the WA State Dept. of Archaeology & Historic Preservation, so we assume it meets all requirements. 23.30.060(B)(3)(a) still requires an inadvertent discovery plan conform to DAHP's most current management standards when warranted.
FW/WEC11	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.30.070(A)(3)	Proposed WCC 23.30.070(A)(3) must be deleted. WAC 173-26-221(4)(d)(iii) does not allow developments to not provide public access because "[o]ther reasonable and safe opportunities for public access to the shoreline are located within ¼-mile of the proposed development site" as the proposed amendments do.	WAC 173-26-221 applies to the establishment of environment designation boundaries and provisions, and there is no subsection (4)(d), so we're not clear as to what the commenter is referring.
FW/WEC12	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.30.080	<p>We recommend that the SMP require new lots and new buildings be located outside the area of likely sea level rise and if that is not possible, buildings should be elevated above the likely sea level rise. These requirements will provide better protection for buildings, property, and people and will also allow wetlands and marine vegetation to migrate as the sea level rises. We recommend the following new section be added to the SMP periodic update:</p> <p><u>23.30.080 Sea Level Rise.</u></p> <p>A. <u>New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</u></p> <p>B. <u>Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</u></p> <p>C. <u>New and substantially improved structures shall be elevated</u></p>	<p>Before adopting specific regulations, we'd need to know the details of likely sea level rise (location, elevation, magnitude, etc.). The COB and WCPW are currently developing the CoSMoS model, which should provide the best data for Whatcom County. The policies being introduced would set us up for developing such regulations once this model is completed.</p> <p>It should also be noted that in reviewing development proposals, PDS already requires structures to be built above the anticipated flood stage through the County's critical area (i.e., geohazard/tsunami) and flood regulations.</p> <p>Nonetheless, this is a policy decision and all comments will be forwarded to the P/C and Council.</p>

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					<u>ed above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.</u>	
FW/WEC13	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.40.010	<i>Table 2, Shoreline Use.</i> We recommend that bulkheads and other forms of hard armoring should be shoreline conditional uses. This ensures that these damaging uses will get an appropriate level or review. The SMP should also provide that all property owners seeking to construct a bulkhead on the shoreline of their property must receive Hydraulic Project Approval (HPA) from the Washington Department of Fish & Wildlife per 2SHB 1579 starting on July 1, 2019.	Our code already allows requires staff to do the same level of review as a substantial or CUP and to condition administrative permits. It also requires a geotechnical analysis for all shoreline stabilization types to ensure the least impactful method is selected. Obtaining an HPA is already a state requirement for any work in waters of the state. WCC 23.05.040(C) reminds applicants that it's their duty to seek any other required permits from other agencies. Additionally, a standard condition on all of our permits is that one may need additional permits from other agencies. We do not believe that we should be listing every state and federal permit one may need in every section of code where such might apply.
FW/WEC14	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.90.130(C) (existing)	We oppose the elimination of environment specific impervious surface and open space requirements in current 23.90.130(C) Table 2, Buffer, Setbacks, Height, Open Space, and Impervious Surface Coverage Standards for Shoreline Development. WAC 173-26-211(5)(b)(ii)(D) requires rural conservancy shoreline environments to limit impervious surfaces to ten percent of the lot which Table 2 currently does. Research by the University of Washington in the Puget Sound lowlands has shown that when total impervious surfaces exceed 5 - to 10% and forest cover declines below 65% of the basin, then salmon habitat in streams and rivers is adversely affected. This science documents the need to retain the existing impervious surface limits and open space standards to achieve no net loss.	New Table 3. Bulk Regulations for Shoreline Development still contains impervious surface limits meeting this requirement. However, we did miss the open space requirements, and have added them back in as 23.40.020(E) and Table 3
FW/WEC15	Tim Trohimovich, Fu-	9/16/20	D	23.40.125(B)(2)	We strongly support the fossil fuel use regulations in proposed	Comment noted.

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	turewise, and Rein Attemann, Washington Environmental Council				23.40.125(B)(2). The changing climate shows the need for a just transition away from fossil fuels. The proposed fossil fuel use regulations are an important step in this important transition. We support them.	
FW/WEC16	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.40.010	In the Cherry Point Aquatic Reserve we recommend that conditional use permits be required for changes of use, that existing uses be defined specifically, and that new piers, docks, wharfs, and wings be prohibited at Cherry Point. These measures are necessary to protect the valuable resources of the Cherry Point Aquatic Reserve.	The County Council is considering such regulations for Title 20 (Zoning), which would also apply. Staff doesn't believe they need to be repeated here. Nonetheless, we have incorporated their proposed use requirements into 23.40.010 Table 2 (Use Table).
FW/WEC17	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.40.140	<p>We oppose the amendments to 23.40.140 Mining policies and regulations and urge the County to retain the existing policies and regulations as they are needed to achieve no net loss.</p> <p>If mining is going to be allowed in floodplains, floodways, and channel migration zones, which the County is proposing to allow, then additional standards are needed. First, mines should be located outside the channel migration zone so that they do not increase the rate of channel migration. Second, mines should be no deeper than the bottom of the nearby streams and rivers so when the river moves into the mine, which is a certainty, the impacts will be reduced. Third, the mine reclamation plan should have a design so that when the river or stream moves into the mine, the mine workings are not so wide that the captured sediments destabilize the river or stream or increase erosion risks on upstream properties.</p> <p>We recommend that the following new regulation be added.</p> <p><u>D. Mining in the 100-year floodplain, floodway, or channel migration zones shall meet the following standards:</u></p> <p><u>i. Mines should be located outside the channel migration zone unless there is no feasible alternative site.</u></p> <p><u>ii. Mines shall be no deeper than the bottom of the nearby streams and rivers.</u></p> <p><u>iii. The mine reclamation plan shall have a design so that when the river or stream moves into the mine it is not</u></p>	Such mining has always been allowed; we're not changing that. Nonetheless, all comments will be forwarded to the P/C and Council.

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					<u>so wide or deep that the captured sediments destabilize the river or stream or increase erosion risks on upstream properties.</u>	
FW/WEC18	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	23.40.140	<p>In 2020, the legislature adopted RCW 90.48.615(2) which prohibits "[m]otorized or gravity siphon aquatic mining or discharge of effluent from such activity to any waters of the state that has been designated under the endangered species act as critical habitat, or would impact critical habitat for salmon, steelhead, or bull trout. This includes all fresh waters with designated uses of: Salmonid spawning, rearing, and migration."</p> <p>We recommend that the SMP Update prohibit motorized or gravity siphon aquatic mining and discharging effluent from this type of mining in shorelines that are the critical habitat for salmon, steelhead, or bull trout and that salmonids use for spawning, rearing, and migration.</p>	We have added a section regarding this.
FW/WEC19	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	D	(existing) 23.100.150	<p>We oppose the amendments to remove policies and regulations encouraging or requiring low-impact development.</p> <p>The update removes some policies and regulations that encouraged, allowed the County to require, or required low-impact development techniques. For example, former (C)(2) on page 156 provided that "[c]lustering and low impact development techniques may be required where appropriate to minimize physical and visual impacts on shorelines in accordance with policies and regulations of WCC 23.90.090." This regulation has been deleted. While the subdivision regulations are now proposed to allow the County to require clustering, the requirement for low-impact development has been deleted. Low impact development is an important technique for reducing development's water quality impacts on rivers, lakes, streams, wetlands, and Puget Sound. We urge the County to retain these policies and regulations; they needed to maintain no net loss of shoreline resources.</p>	Former 23.100.150 (C)(2) was moved to 23.40.130(A)(10), though without the reference to LID. At the time, we had been thinking about stormwater LID techniques, which is covered by a general regulation of meeting our Title 20 stormwater regulations; we had not been thinking about LID in terms of plat design. The term has now been reinstated. 23.40.130(A)(10).
FW/WEC20	Tim Trohimovich, Futurewise, and Rein Attemann, Washington	9/16/20	D	(existing) 23.40.200(A)(10), (11), and (12)	Do not delete existing 23.40.200(A)(10), (11), or (12) prohibiting freestanding signs between the right-of-way and buildings, the waterbodies, or placing them in critical areas buffers, or the sign	The SMA, WAC, or DOE guidelines do not address signs. For simplicity's sake we were proposing to just have our Title

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	Environmental Council				limits in Table 2, Sign Area Limits. Existing WCC 23.40.200(A)(10), (11), and (12) currently prohibit many freestanding signs between the right-of-way and buildings the waterbodies or placing them in critical area buffer. Signs are not a priority shoreline use, but the policy of the SMA calls on the County and Ecology to protect shoreline views. These existing regulations are necessary to implement the policy of the SMA and cannot be deleted. Existing Table 3 is also needed to limit the sizes of signs in shoreline jurisdiction to implement the policy of the SMA. Again, it cannot be legally deleted.	20 sign regulations address signs. However, T-20 does not address these circumstances, so we have reinserted existing 23.40.200(A)(10), (11), & (12) as 23.40.200(A)(6), (7), & (8). Existing Table 3 does not address sign size.
FW/WEC21	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	16.16.265(A)(1)	Require wider setbacks between development and shoreline and critical areas buffers to protect homes and property from wildfire danger. Whatcom County is susceptible to wildfires. Climate change has the potential to increase wildlife risk through changes in fire behavior, wildfire ignitions, fire management, and the vegetation that fuels wildfire. Setbacks from critical areas buffers provide an area in which buildings can be repaired and maintained without having to intrude into the buffer. It also allows for the creation of a Home Ignition Zone that can protect buildings from wildfires and allow firefighters to attempt to save the buildings during a wildfire. Since a 30-foot-wide Home Ignition Zone is important to protect buildings, we recommend that 16.16.265(A)(1) require a setback at least 30 feet wide adjacent to shoreline and critical area buffers. Combustible structures, such as decks, should not be allowed within this setback to protect the building from wildfires. This will increase protection for people and property.	This distance was established by Council and staff is not proposing to change it. However, all comments will be provided to them. (Note that this comment contradicts comments GCD12 and MES09.)
FW/WEC22	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	Article 3	We strongly support updating the Geohazard Area standards in Article 3. Whatcom County is susceptible to landslides. The SMP Guidelines, in WAC 173-26-221(2)(c)(ii)(B), provide: "Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development." Landslides are a	16.16.322(D) already precludes land divisions, and requires risk-reducing measures be taken for non-division development in geohazard areas. 16.16.310 also covers landslide deposits, scarps and flanks.

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					<p>type of geological hazard that can result in major impacts to people and property.</p> <p>We strongly support designating the landslide deposits, scarps and flanks, and areas with susceptibility to deep and shallow landslides as geologically hazardous areas. This will better protect people and property.</p>	
FW/WEC23	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	Article 3	Landslides are capable of damaging commercial, residential, or industrial development at both the tops and toes of slopes due to the earth sliding and other geological events. So the areas at the top, toe, and sides of the slope are geological hazards. We recommend these areas be designated as landslide hazards.	CAO Article 3 already covers this.
FW/WEC24	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	Article 3	<p>Require the review of geologically hazardous areas capable of harming buildings or occupants on a development site.</p> <p>We recommend that the regulations require review of any landslide capable of damaging the proposed development. Geological hazards, such as landslides are capable of damaging property outside the hazard itself. The 2014 Oso slide ran out for over a mile (5,500 feet) even though the slope height was 600 feet. A 2006 landslide at Oso traveled over 300 feet. Recent research shows that long runout landslides are more common than had been realized. This research documents that over the past 2000 years, the average landslide frequency of long runout landslides in the area near the Oso landslide is one landslide every 140 years. The landslides ran out from 787 feet to the 2,000 feet of the 2014 landslide. So we recommend that Whatcom County require review of all geological hazards capable of harming a proposed lot or building site.</p>	CAO Article 3 already covers this.
FW/WEC25	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	16.16.325(C)	We support WCC 16.16.325(C) which requires individualized setbacks from landslide hazard areas based on the actual hazard. WCC 16.16.325(C) will help protect people and property. Construction should not be allowed in these setbacks.	Comment noted.
FW/WEC26	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	Article 5.5	<p>To protect the coastal aquifers, we recommend that Article 5.5 apply to all areas subject to saltwater intrusion.</p> <p>All of the islands in the County and its marine shorelines have</p>	To staff's knowledge, only Lummi Island has been designated as a vulnerable seawater intrusion areas by the County Council (which is why it has the rules in

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					<p>the potential for wells to be contaminated by salt water. WAC 173-26-221(2)(a) requires that shoreline master programs must provide for management of critical areas designated as such pursuant to RCW 36.70A.170(1)(d) located within the shorelines of the state with policies and regulations that ... [p]rovide a level of protection to critical areas within the shoreline area that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources." Critical areas include areas with a critical recharging effect on aquifers used for potable waters.</p> <p>Saltwater intrusion can worsen until wells "must be abandoned due to contaminated, unusable water." Saltwater intrusion is often worsened by over-pumping an aquifer. The Western Washington Growth Management Hearings Board has held that Growth Management Act requires counties to designate vulnerable seawater intrusion areas as critical aquifer recharge areas. The Board also held that counties must adopt development regulations "to protect aquifers used for potable water from further seawater degradation."</p>	Art. 5.5).
FW/WEC27	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	Table 1, Standard Wetland Buffer Widths	We support updating the buffer widths to conform to Ecology's most recent recommendations, as they are based on best available science	Comment noted.
FW/WEC28	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	16.16.640(B)	Buffer averaging should not allow widths less than 75% of the required buffer for all wetlands. Type IV wetlands have important functions and values. Allowing 50% buffer reductions for type IV wetlands is inconsistent with best available science and should not be allowed.	Based on this comment we have removed the allowance for Type IV wetlands in 16.16.640(B) and inserted the language from 2016 DOE Guidance (XX.040 Exemptions and Allowed Uses in Wetlands) providing exceptions to regulation of certain wetlands/buffers from regulation in a new section 16.16.612.
FW/WEC29	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	16.16.740(B)	<p>Retain using the PHS recommendations as the default for buffers and management recommendation priority habitats and species.</p> <p>Currently, Table 4, Buffer Requirements for Habitat Conservation Areas (HCAs), provides that for areas with which federally</p>	While the text in the table is proposed for deletion, amended (B)(2) requires that minimum buffers be based on habitat a management plan prepared pursuant to WCC 16.16.750, subsection (B)(4) of

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					listed species have a primary association, state priority habitats, and areas with which priority species have a primary association the "[m]inimum buffers shall be based on recommendations provided by the Washington State Department of Fish and Wildlife PHS Program; provided, that local and site-specific factors shall be taken into consideration and the buffer width based on the best available information concerning the species/habitat(s) in question and/or the opinions and recommendations of a qualified professional with appropriate expertise." This requirement is being deleted and instead the buffers are based on a habitat a management plan. While we recognize the habitat management plan will include information on the PHS program recommendation and a survey of best available science related to the species or habitat, the current requirement is clearer that the default buffer should be the PHS recommendations. We think this is clearer and provides better protection for priority species and habitats and recommend it be retained.	which requires that assessment reports include Management recommendations developed by WDFW through its PHS program. Thus, the requirement is still there (and always was, as this section isn't proposed for modification).
FW/WEC30	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20	F	16.16.740(B)	We also recommend that the required consultation with Indian Tribes and Nations in Table 4 be retained. They have significant expertise on fish and wildlife and their habitat needs.	16.16.750(C) still allows for agency and tribal consultation.
FW/WEC31	Tim Trohimovich, Futurewise, and Rein Attemann, Washington Environmental Council	9/16/20			We support preparing a No Net Loss technical memo. While WAC 173-26-090(2)(d)(ii) provides that "[t]he review process provides the method for bringing shoreline master programs into compliance with the requirements of the act that have been added or changed since the last review and for responding to changes in guidelines adopted by the department, together with a review for consistency with amended comprehensive plans and regulations," this provision does not excuse compliance with WAC 173-26-090(2)(d)(i) and cannot override RCW 90.58.080(4)(a) of the Shoreline Management Act. So, while SMPs must be brought into compliance with new laws and new SMP Guidelines, they must also comply with all current provisions of the SMA and the SMP Guidelines including the no net loss requirement. We urge Whatcom County to update the SMP to achieve no net loss.	A NNL technical memo will be prepared prior to the P/C making their recommendations to Council. We thought it more appropriate to do this task after the public comment period in case the proposals needed to be amended.
GCD01	Glyn & Carol Davies	9/23/20	D	23.10.160(C)	A penalty of double standard post development is excessive.	This section doesn't say that penalties in

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					Please consider reducing the penalty to the cost of mitigation plus a percentage penalty in the range of 15% - 25%.	the way of fines are doubled; it says that "corrective action, restoration, or mitigation" will be required at a double ratio "when appropriate" as a way to discourage violations.
GCD02	Glyn & Carol Davies	9/23/20	D	23.30.040(C)	Please consider clarifying the planting of vegetation to minimize impacts to views from the water requirement in this provision. For example, views from the water are optimized by plants and shrubs that do not exceed 3' – 4' in height. Dense, forested vegetation on the shoreline is highly obstructive to views, so this provision should be clear regarding the type of vegetation that protects views.	This provision is aimed at protecting views from the water. The SMA requires protecting views to <i>and from</i> the water. (RCW 90.58.020))
GCD03	Glyn & Carol Davies	9/23/20	D	23.40.020(F)	Suggest adding a 15 th provision to this clause to conform to 16.16.720(G)(4) Accessory Uses. "When located in the shoreline jurisdiction, residential water-oriented accessory structures may be permitted in an HCA buffer; provided that the size shall be limited to 10% of the buffer's area or 500 square feet, whichever is less."	We have added a cross reference to that section.
GCD04	Glyn & Carol Davies	9/23/20	D	23.40.150(A)(2)	<i>"No pier or dock shall be used for a residence."</i> This provision should be deleted since it contradicts 23.40.150(A)(A) that allows moorage for single family residences.	23.40.150(A)(A) to which the commenter refers is proposed for deletion. Furthermore, it refers to "moorage associated with a SFR," which means a private dock at a private SFR (i.e., a personal dock), which is still allowed. The prohibition in 23.40.150(A)(2) refers to someone living on their boat or dock.
GCD05	Glyn & Carol Davies	9/23/20	D	23.40.150(A, B, & C)	<i>Dimensional Standards – Freshwater and Marine – tables</i> Please consider allowing ramps to be 6' wide rather than 4' wide as a safety measure when transporting kayaks, canoes, or boating provisions, equipment and supplies to the dock for launching (kayaks or canoes) or loading into a boat (ice chests, water skis, wakeboards, etc.). 4' is narrow when carrying bulky items to the float, and can be dangerous, particularly if the ramp or pier is high off the water due to the shoreline configuration relative to the float. This would also mean increasing the square footage for the individual use dock or pier to 520 sq. ft. to accommodate	WDFW regulations in WAC 220-660-140 and 380 limit the width of residential dock ramps to 4' wide.

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					a 6' wide ramp, and increasing the added square footage if the dock has to be extended due to water depth to 6 sq. ft. rather than 4 sq. ft.	
GCD06	Glyn & Carol Davies	9/23/20	D	23.40.150(A, B, & C)	We also suggest changing the minimum water depth to either 10' measured below ordinary high water, or 6' measured over mean low low water. This is to allow adequate clearance for propellers to protect the sea floor or lake bed from turbulence when a boat is operating in shallow water	Changing to a 10' standard would essentially allow a doubling of the length of docks on our lakes, when we're required to minimize overwater structures. It would also interfere with public navigation.
GCD07	Glyn & Carol Davies	9/23/20	D	23.40.150(C)(8)	Please consider adding a qualifier to this provision stating "...unless shoreline constraints, and/or positioning of pilings make it infeasible to create sufficient buoyancy for the float without positioning flotation components under a portion of the grating."	This standard is from WDFW regulations in WAC 220-660-140 and 380.
GCD08	Glyn & Carol Davies	9/23/20	D	23.40.150(D)(6)	Please consider increasing the size of a covered moorage accessory for a single-family pier or dock to 500 sq. feet (25 x 20) and 20 ft. in height above OHWM to accommodate larger boats that are increasingly common on the lakes in Whatcom County. Also please consider deleting the requirement in this provision that the cover (the "roof materials") be "...translucent or at least 50% clear skylights." The purpose of a covered moorage is to protect the boat, principally from sunlight, which is not served by a translucent cover. Additionally, even if the cover is translucent, the boat under it is not, which defeats the purpose of a translucent cover in any case.	These standards are from DOE guidance.
GCD09	Glyn & Carol Davies	9/23/20	D	23.40.170(C)(3)	Please consider increasing the total allowed footprint of home, sidewalks and similar structures, parking areas and normal appurtenances to "the greater of 40% of the total area of the lot or 4,000 sq. ft." 2,500 sq. ft. is small for just the residence by today's standards, and is prohibitively small when it includes the garage, driveway, sidewalks, decks, patios, etc. in addition to the home.	This provision is existing and is for construction on constrained lots, which by definition cannot accommodate larger development; if one wants a larger home, one can buy an unconstrained lot.
GCD10	Glyn & Carol Davies	9/23/20	F	16.16.235(4)(b)(iii)	Why is tree replacement at a 3:1 ratio? Please consider a tree replacement ratio of 1:1.	A 3:1 ratio is based on DOE guidance, which recommends a ratio of 4:1 for mature trees and 2:1 for young trees. For simplicities sake, we averaged it. Additionally, this is the same replacement

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						ratio in on Council's adopted tree protection regulations for Lake Whatcom and our other special watershed districts.
GCD11	Glyn & Carol Davies	9/23/20	F	16.16.235(B)(5)(e)	Please consider a pruning height for shrubs on the order of 2' – 3' in order to minimize view obstruction.	We have now moved that provision from the view corridor section to the vegetation management section.
GCD12	Glyn & Carol Davies	9/23/20	F	16.16.265(A)(1)	Please consider eliminating the building setback. The purpose of the critical area buffer is to provide protection; with generous buffer requirements (100' for shoreline, 50' – 100' for critical areas, etc.) there is no need for an additional 10' building setback (or consider reducing the building setback to 5' from the buffer).	This setback was established by Council and staff is not proposing to change it. We have, however, amended the section to allow for a reduction where the setback isn't warranted, modeled on the COB's similar regulation. (Note that this comment contradicts comment FW/WEC21.)
GCD13	Glyn & Carol Davies	9/23/20	F	16.16.265(A)(1)(b)	Please consider allowing for a grade-level deck that is covered by a corresponding deck on the 2 nd floor, as well as the bottom of the stairs/staircase for access to a second level deck, if any.	Comment noted.
GCD14	Glyn & Carol Davies	9/23/20	F	16.16.270(C)(12)	Same comment as GCD08 above: Please consider increasing the total allowed footprint of home, garages/shops, decks, parking, and all lawn and nonnative landscaping to "the greater of 40% of the total area of the lot or 4,000 sq. ft." 2,500 sq. ft. is small for just the residence by today's standards, and is prohibitively small when it includes the garage, driveway, sidewalks, decks and patios and lawn in addition to the home. Also, 23.40.170.C.3 allows an additional 500 sq. ft. for landscaping, lawn, turf, ornamental vegetation, or garden. This provision should match and allow the same additional 500 sq. ft.	Reasonable use as proposed would now be the last effort to avoid a constitutional taking and allow development on very constrained lots and these cases should be rare. The new paradigm is to administratively allow up to 50% buffer reduction (with mitigation) through a minor variance (administrative) and a greater reduction with a public hearing (Hearing Examiner). This new approach should provide greater flexibility while cutting down on costs to applicants and cases going to the H/E. The shoreline code cited is what is allowed without a shoreline variance; an applicant always has the option to seek a larger footprint through a variance.
GCD15	Glyn & Carol Davies	9/23/20	F	16.16.620(F)	Please allow for a storage tank when a storage tank is mandated by County requirements for the well.	A storage tank is not required to be adjacent to a well, as is a pump(house); it could be placed elsewhere on a property,

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						outside of critical areas/buffers.
GCD16	Glyn & Carol Davies	9/23/20	F	16.16.620(G)(2)(d)	Please consider allowing the dispersion outfall within the outer 50% of the buffer.	The 25% is existing language; however, we have proposed adding, "unless a closer location is demonstrated to be the only feasible location" to account for odd circumstances.
GCD17	Glyn & Carol Davies	9/23/20	F	16.16.265(A)(1)	Please consider eliminating the building setback. The purpose of the critical area buffer is to provide protection; with generous buffer requirements (100' for shoreline, 50' – 100' for critical areas, etc.) there is no need for an additional 10' building setback (or consider reducing the building setback to 5' from the buffer).	We have added text to the section describing its purpose. However, this setback was established by Council and staff is not proposing to change it.
GCD18	Glyn & Carol Davies	9/23/20	F	16.16.680(F)	Please consider limiting the replacement ratio for preservation to 3 times the ratio for reestablishment or creation (in most cases, 1:1 ratio should be applicable, so a 3 times ratio is generous and should suffice).	Mitigation ratios for wetland impacts are taken verbatim from DOE guidance.
GCD19	Glyn & Carol Davies	9/23/20	F	16.16.720(A)	Since you are proposing eliminating provision "O" under this section that calls out residential, perhaps reference residential use in this provision: "...including, without limitation, residential uses."	We're not sure to what the commenter is referring.
GCD20	Glyn & Carol Davies	9/23/20	F	16.16.720(B)(3)	Please allow for a storage tank when a storage tank is mandated by County requirements for the well.	Tanks do not necessarily need to be next to a well, as a pump house does. Tanks could be located elsewhere on a property, outside of critical areas/buffers.
GCD21	Glyn & Carol Davies	9/23/20	F	16.16.720(G)(1)(d)	Please consider 6 foot width for private trails.	Comment noted.
GCD22	Glyn & Carol Davies	9/23/20	F	16.16.745(C)(1)(c)	Please consider allowing buffer reduction to 65% of the standard buffer specified in the table.	The amendments proposed are intended to meet DOE guidance. As such, we cannot vary without developing our own Best Available Science.
GCD23	Glyn & Carol Davies	9/23/20	F	16.16.760(8)	Please consider mitigation at 1:1 ratio regardless of whether placed before or after impact occurs. Sometimes mitigation must occur after the impact occurs for logistical reasons. This should not result in a 25% penalty.	This ratio is not proposed for amendment; Council approved it in 2017 to account for temporal loss.
LNTHPO01	Tamela Smart, Lummi Nation Tribal Historic Preservation Office	9/15/20	D	23.60.030(18)	One of our primary concerns is the use of the term "significant" in regards to cultural resources. This term has a specific meaning under Federal law. The definition that is included for this	The term significant has been deleted from the definition of "cultural resource site" as it is no longer used in the regula-

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					term on page 227 is taken from the Federal process and it does not apply here. Under state law a different process is followed.	tions.
MES01	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.255(B)	Subsection (5) was stricken, and a side bar note says this is addressed by (4). This does not appear to be the case as 4 is an allowance for water dependent use.	We think the commenter erred in his reference. Allowance for water dependent uses is subsection (3); (4) refers to uses allowed by Ch. 16.16, which includes activities allowed with or without notification.
MES02	Ed Miller, Miller Environmental Services	9/18/20	F	6.16.255(B)(8)	<i>Alteration of functionally disconnected Type III or IV wetlands with associated with an approved commercial development within an Urban Growth Area.</i> Please define "functionally disconnected". If this was intended to mean "isolated wetlands", this provision would exclude many wetlands that have seasonally flowing outlets within the Birch Bay area. Also, why doesn't this exemption apply to residential development in other UGAs?	The term "functionally disconnected" has been deleted.
MES03	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.225(C)	Please define "ecological connectivity" and "habitat corridors." It appears this section will grant the County the authority to protect/prohibit development over areas outside of defined critical areas and their buffers. The language is vague, which will create unpredictable review and requirements. A corridor could be 10 feet wide or >300 feet wide, depending on which species we are seeking to maintain a corridor for. Additionally, corridors are already covered in the CAO, as a WDFW priority habitat covered under the HCA section.	The commenter is correct. However, this verbiage was added in response to the Council's direction in the adopted scoping document.
MES04	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.225(D)	Was this section intended to apply to native plant communities within critical areas and buffers or within any native plant community "associated" with critical areas? What does "associated" mean? This could potentially imply that any native vegetation beyond the regulated buffer should be prioritized for protection. This new section seeks to extend authority over all vegetation (native and non-native) on a property.	The CAO only applies to critical areas and their buffers, and as adopted by reference in the SMP, only applies to the shoreline jurisdiction. This proposed language does not extend authority over all vegetation on a property.
MES05	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.230(B)	We noted the verbiage change from the prior "exempt activities" title. With this modification, no activities would be exempt from the critical areas ordinance. Additionally, under subsection B of this section, the language was modified to remove the allowance to prune or plant ornamental or native trees within critical	Per state law, <i>all</i> activities are subject to the CAO, including those listed here. They are not exempt; they just don't need a permit or review. We changed the title

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					areas or buffers. This would take away any rights to prune or plant native or non-native trees in lawfully established gardens or landscaped areas, including fruit trees? Why? This seems to be taking away some existing established rights. This section is inconsistent with 16.16.235.B.4.a.i.	to make it clearer. Pruning (and all vegetation management) still listed as an activity allowed in buffers with notification (16.16.230((B)(4))). We removed <i>planting</i> so people don't think they can plant new non-native trees in the buffer. However, one can still maintain existing vegetation.
MES06	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.235(B)(4)(b)(iv)(B)(2)	Evergreen trees may not be appropriate for all environments, particularly wetlands with high levels of seasonal ponding. We recommend removing the evergreen tree requirement.	This language is the same that is used in our tree protection regulations for our watersheds. Nonetheless, we agree that in certain circumstances evergreens may not be the best choice. Therefore we have added, "unless otherwise approved by the Director."
MES07	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.235(B)(5)	What is the time scale when referring to "one-time"? The life of the tree? The duration of property ownership? Please clarify.	This was unclear. We have removed "a one-time," but added "a cumulative total of." We were trying to limit the total amount of buffer that could be cleared.
MES08	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.255(C)(3)	"Habitat corridor" and "ecological connectivity" are general ecology terms, not defined in this code and not regulated as a critical area – unless they are a specific, identified HCA (such as old growth/mature forest, Oregon White Oak, etc.). Biodiversity areas and corridors are identified as a state "priority habitat" by Washington Department of Fish and Wildlife (WDFW)– with corridors defined as "relatively undisturbed and unbroken tracts of vegetation that connect fish and wildlife habitat conservation areas, priority habitat, areas identified as biologically diverse, or valuable habitat within a city or UGA." Critical areas reports are already required to cover biodiversity areas and corridors as an HCA. If the intent of this added section is to include other areas in addition to those currently regulated as critical areas, it seems to be an extension of and addition of a new regulated area.	The commenter is correct. However, this verbiage was added in response to the Council's direction in the adopted scoping document.
MES09	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.265(A)(1)	What is the intent of the building setback? If it is to protect tree root zones and allow for building access and maintenance, a building setback is not always needed. For example, a new	This setback was established by Council and staff is not proposing to change it. We recognize, however, that there may

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					building within a grass field would not disturb root zones within a buffer or result in significant disturbance by a homeowner walking around the house. Assuming this 10-foot building setback area would or could be tabulated as impact, the setback will effectively reduce the allowed "reasonable use" footprint (which is proposed to be reduced back down to 2,500 square feet under this code). Forcing applicants to build smaller homes on reasonable use lots in order to accommodate a 10-foot building setback will significantly reduce the buildable area on a property. For example, a 50 x 50-foot building (2,500 SF) would have to shrink to 40 by 30-foot building (1,200 SF) if it is against a road setback in order to leave a 10-foot building setback around three sides of the structure.	be instances where the setback isn't warranted and have amended the section to allow for a reduction in such cases, modeled on the COB's similar regulation.
MES10	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.265(B)(1)	Significant Trees" needs to be defined in the CAO.	The WCC has too many disparate definition sections, many of which define the same words differently. Staff is working toward ultimately having one definition chapter. But until that happens, we're trying not to add new definitions where words are already defined elsewhere, which is why we've added "Any words not defined herein shall be defined pursuant to Titles 20 (Zoning), 22 (Land Use and Development), 23 (Shoreline Management Program), or their common meanings when not defined in code" at the beginning of the definition section.
MES11	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.270(C)(12)	<i>Reasonable Use Exceptions. For single-family residences, the maximum impact area may be no larger than 2,500 square feet. This impact area shall include the residential structure as well as appurtenant development that are necessarily connected to the use and enjoyment of a single-family residence. These appurtenant developments include garages/shops, decks, parking, and all lawn and nonnative landscaping.</i> Why is reasonable use reduced from 4,000 SF to 2,500 SF? The County Council previously approved the larger area so that	Reasonable use as proposed would now be the last effort to avoid a constitutional taking and allow development on very constrained lots and these cases should be rare. The new paradigm is to administratively allow up to 50% buffer reduction (with mitigation) through a minor variance (administrative) and a greater reduction with a public hearing (Hearing Examiner). This new approach should provide great-

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					<p>property owners could use a reasonable portion of their 5, 10, 20-acre properties with a house, shop, garden, etc. If the intent is to make it the same as the SMP reasonable use allowance (2,500 square feet), please explain why they need to be the same. Shoreline lots fall within 200 feet of the shoreline, a more highly protected area designated by the Shoreline Management Act. Additionally, shoreline lots are often smaller-sized lots. A majority of non-shoreline lots in the County are at least five acres in size. No specific reasoning is given on why the reasonable use allowance is being lowered, despite the recent critical areas code update in 2017 which brought it to 4,000 square feet.</p> <p>This is particularly concerning if a 10-foot building setback is required to be included within the reasonable use allocation area, severely reducing building size. Potentially, a property owner with five acres or more could be limited to a 1,000 SF house with a required 10-foot building setback and max out the reasonable use allowance with a small house footprint.</p>	er flexibility while cutting down on costs to applicants and cases going to the H/E. The shoreline code cited is what is allowed without a shoreline variance; an applicant always has the option to seek a larger footprint through a variance.
MES12	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.630(C) & 16.16.740(A)(1)	<p>This section of code was revised to remove the provision that buffers do not extend across substantially developed areas and/or across legally established roads. The language was changed to only include "existing, legally established substantially developed surface". This change would allow larger buffers to include disconnected area on the opposite side of roads or developed surfaces (such as buildings). Please explain the reason for this change. We are not aware of any Department of Ecology guidance that proposes including disconnected portions of buffer across roads or developed areas.</p> <p>While some wildlife species may cross roads (e.g. birds, mammals), it seems unlikely that water-dependent species (e.g., amphibians) would regularly access buffers across roads and buildings. Since the intent of the buffer is to protect the functions of the wetland, perhaps the analysis should focus on what functions a disconnected buffer would provide to a wetland across a road or building. The disconnected buffer would not provide</p>	Hydrologic or water quality functions are not the only reason for buffers. While small water-dependent species (e.g., amphibians) may not cross roads, many others do, or they nest, roost, or any number of other activities. DOE guidance does not provide provisions for reducing buffers because of minor (e.g., dirt driveways) intrusions.

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					hydrologic or water quality functions for the wetland across the road. This change would substantially increase the amount of regulated buffer areas in Whatcom County, particularly in conjunction with the larger buffers proposed under this code change. As such, it seems there should be some reasoning provided as to why this change is needed or even valid.	
MES13	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.640(A)	How will the Director determine what distance is necessary to increase the buffer if it's "poorly vegetated"? This appears subjective as there is no definitive science that provides clear buffer widths in these cases – they could vary depending on what function or which species you are seeking to protect. What would qualify as "poorly vegetated"? Bare dirt? Grass? Significant coverage of invasive species? This section of code could be interpreted and applied very differently among staff, decreasing predictability and consistency for landowners. The section has also been altered from the existing code to allow for buffer increases to "provide connectivity to other wetland and habitat areas". This seems to be an especially broad provision to increase buffers almost anywhere.	Staff is proposing amendments to this section to provide better rationale (based on DOE guidance) for an already existing section.
MES14	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.640(B)(2)	<i>Buffer Width Averaging. In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.</i> This section effectively eliminates the intent of buffer averaging and converts it to buffer reduction by requiring mitigation. Buffer averaging is an important and simple way to allow more flexibility for property owners that need to make minor buffer adjustments. This section will also reduce consistency and predictability (each staff member could apply this differently), and will increase the cost for simple projects by requiring plantings, monitoring, bonding, etc. by thousands of dollars.	The intent that if the remaining reduced buffer area is degraded, it is now narrower and lacks the vegetation to properly function. If it is well vegetated, enhancement would not be necessary (nor required).
MES15	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.640(C)(1)(c)	<i>Buffer Width Reduction. The buffer shall not be reduced to less than 75 percent of the standard buffer.</i> The existing code section allows for up to a 50 percent (or min-	We are responding to comments from DOE regarding having to meet their latest guidance.

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					imum of 25 feet) reduction of a Category IV wetland buffer, while higher category wetland are restricted to a 25 percent reduction. Why is this being changed? Is there guidance from the Department of Ecology supporting the change or data from Whatcom County showing that the current allowed reduction up to 50 percent for Category IV wetlands is not working? Category IV wetlands are generally low functioning wetlands – why are we further restricting buffer flexibility here?	
MES16	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.640(C)(1)(e)(iii)	Does this mean the Director could require property owners to protect non-critical area and non-buffer areas with a conservation easement? This essentially gives the Director unlimited authority to restrict uses over non-protected uplands on properties, further limiting uses on properties without clear rationale, size limitations/restrictions, or predictability. Again, this section of code will create highly unpredictable review, requirements, and result in additional cost and critical areas assessment report revisions, depending on staff interpretations and personal beliefs. Additionally – allowed buffer reductions already require buffer mitigation to offset the impact. Please provide rationale for requiring additional mitigation that may include non-designated critical areas.	This is not intended to be in addition to mitigation, but one of the ways to achieve no net loss through the mitigation sequence while applying landscape ecology principals.
MES17	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.640(C)(1)(g) & 16.16.640(C)(3)	<i>Buffer Width Reduction. All buffer reduction impacts are mitigated and result in equal or greater protection of the wetland functions and values. This includes enhancement of existing degraded buffer area and provide mitigation for the disturbed buffer area.</i> Define "degraded". This could result in the Director arbitrarily requiring acres of additional planting, above and beyond the 1:1 or 1.25:1 buffer mitigation. How is the amount of area determined? What if the area is an active hayfield or established pasture that is in use? The Director could remove the ability to use a legally established, non-conforming uses and require planting over such area. This again will add uncertainty, lack of predictability, and significantly increase costs without any clear limitations on how much planting could be required. Additionally, this sounds like two things are now required – enhancement of	The planting of degraded buffers has been a part of our CAO since 2005 and is based on DOE guidance. Based on case history, we are only clarifying that the area that might be enhanced is limited to the specific portions of the buffer being reduced, not anywhere on the lot, and certainly not outside critical area buffers (and thus does not "grant unlimited potential for mitigation requirements"). Per DOE guidance, "degraded" is any portion of a buffer that is not in a densely vegetated community.

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					existing degraded buffer and conducting additional mitigation. Why are property owners penalized for the current condition of the property – that may have been in place for generations? Also, it should be noted that buffers are not static, and have been increasing with every update and version of the CAO. As a result, areas which now may be considered “degraded buffer,” potentially requiring additional enhancement (per the draft change), may not have even been regulated as buffer a few years ago.	
MES18	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.680(C)(4)	<p><i>Mitigation Ratios. For impacts to wetland buffers, mitigation shall be provided at the follow ratios... (1) Where the mitigation is placed after the impact occurs, at a 1.25:1 ratio (area or function); and (2) where the mitigation is in place and functional before the impact occurs (i.e. advanced mitigation), at a 1:1 ratio (area or function).</i></p> <p>Planting mitigation prior to project construction is complicated because of access for equipment, permit issuance, and seasonal constraints (plants generally must be planted in winter or spring) – which doesn't always coincide with project construction. At the stage when the mitigation is designed and the critical areas assessment report is submitted to the County for review with the site plan, we don't know when or if planting could occur prior to project construction. This makes it impossible to assume applicants could achieve a 1:1 mitigation ratio unless they are using an established mitigation bank to offset their impacts. Why is this being changed? Is there a directive from the Department of Ecology or data in Whatcom County supporting this, and the higher ratio?</p>	The amendments to this section are proposed to meet Best Available Science and DOE guidance to account for temporal loss, i.e., the time between impact and when mitigation is providing the same functions and values as to prior to the impact.
MES19	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.720(D)	<p><i>Private Access. Access to existing legal lots may be permitted to cross habitat conservation areas if there are no feasible alternative alignments.</i></p> <p>This section as modified implies that no new lots could be created (subdivided) if a road would be needed to cross through a habitat conservation area. This could include trumpeter swan loafing areas (which are roughly mapped on WDFW priority habitats and species maps), biodiversity corridors, bat habitat</p>	We believe Mr. Miller was reviewing an older draft. We have since amended this subsection (and subsection (C) to clarify how subdivisions could still occur.

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					(which includes entire townships where bats are mapped), streams, Pileated woodpecker habitat (which is not mapped by WDFW and must be determined by the project biologist or County staff), and many other priority habitats.	
MES20	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.630(F)	<i>Table 1 Standard Wetland Buffer Widths.</i> Based on a sampling of numerous projects in Whatcom County, the most common wetland category is a Category III with a moderate habitat score (110 or 150-foot buffers for moderate or high intensity land uses respectively). However, we also find that Category III wetlands with a high habitat score occur. This could easily occur in a wetland of small to moderate size (5,000 to 10,000 square feet), and partially in a pasture. The updated buffer for this type of wetland would be 225 feet or 300 feet (for moderate or high intensity development respectively). A 225-foot buffer would result in over 3.6 acres of land that would be protected as buffer. On a five-acre property, with multiple wetlands, this could easily create many more reasonable use properties, resulting in many more variances.	Based on conversations with DOE staff, Table 1 is proposed to be updated to be consistent with their latest guidance. Mr. Miller provides a good example as to why staff is proposing an (up to 50%) administratively approved minor variance.
MES21	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.740(A)	<i>Buffer Widths</i> This is the same concern as comment MES12, and would allow for buffers to extend to areas across roads.	Hydrologic or water quality functions are not the only reason for buffers. While small water-dependent species (e.g., amphibians) may not cross roads, many others do, or they nest, roost, or any number of other activities. DOE guidance does not provide provisions for reducing buffers because of minor (e.g., dirt driveways) intrusions.
MES22	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.740(B)	<i>Table 4. Buffer Widths.</i> What is a Type O water? No definition is given and there is no other correlation with any other part of the HCA section or Washington State water typing. The buffer provision for natural ponds and lakes under 20 acres was previously 50 feet, but was removed. What are the buffers for small lakes and natural ponds? The added water typing buffers in the table include a 100-foot buffer for lakes. Assumedly	A definition of Type O waters is provided in §16.16.710(C)(1)(a)(v). Natural ponds and lakes under 20 acres fall into one of the five listed types, which are generally based on size, permanence, and presence of fish.

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					natural ponds and small lakes would not be required to have the same buffer as large lakes in the County. Currently artificially created ponds (created prior to 2005) do not require a buffer, is this still the case?	
MES23	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.745(A)	<i>Buffer Width Increasing.</i> There is a new provision to this section that allows the Director to extend Type S or F buffers to resources within 300 feet – including Category III wetlands, other HCA's or other waters. Again, this is an exceptionally broad provision to add in additional regulated areas that are not currently designated as critical areas or buffers in the existing or even the proposed amended code. There is also no clear guidance on how this would be done. The amount of additional area in Whatcom County this could include is hard to imagine. The extension of every fish stream or lake buffer to another resource within 300 feet is essentially extending most of the buffer areas to 300 feet.	This provision has been borrowed from Skagit County as a way to provide inter-jurisdictional consistency, making it easier for our consultants working in multiple jurisdictions.
MES24	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.745(B)	<i>Buffer Averaging.</i> Same concern as comment MES14.	The intent is that if the remaining reduced buffer area is degraded, it is now narrower and lacks the vegetation to properly function. If it is well vegetated, enhancement would not be necessary (nor required).
MES25	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.745(C)	<i>Buffer Reduction.</i> Same concern as comment MES17 and MES18.	Planting of degraded buffer has been a part of our CAO since 2005 and based on DOE guidance. We have only tried to clarify based on case history; we are clarifying that the area that might be enhanced is limited to the specific location being reduced. Per DOE guidance, degraded is any portion of a buffer that is not in a densely vegetated community.
MES26	Ed Miller, Miller Environmental Services	9/18/20	F	16.16.760(B)	<i>Buffer Mitigation.</i> Same concern as comment MES18.	It is being amended to meet DOE guidance.
NES01	Molly Porter, North-	9/14/20	F	16.16.270(C)(12)	Please provide additional clarification on what is included in the	Whatever fits in 2,500 sq. ft. We could set

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	west Ecological Services				maximum allowed 2,500 sq. ft. impact area to provide consistency in application. The text states driveways shall be the minimum necessary but does not specify if any of this square footage shall be included in the allowed 2,500 sq. ft. impact area. Is there a minimum square footage of parking area that is required to be included? Is the 10-foot building setback counted towards this allowance?	specific numbers, but that would provide less flexibility to a homeowner.
NES02	Molly Porter, Northwest Ecological Services	9/14/20	F	16.16.270(C)(12)	<p>For projects that require a critical area buffer impact, it appears these will be reviewed in the following order: reduction of up to 25% administered by the Director; a minor variance (buffer reduction of 25-50%) administered by the Director; a major variance (buffer reduction beyond 50%) administered by the Director; and last, if major variance is denied or if all other code requirements including mitigation cannot be met, a reasonable use application is administered by the Hearing Examiner. A flow chart similar to Table 1. Project Permit Processing Table in 22.05, may be helpful to describe this process and requirements associated with each.</p> <p>Please clarify if there are any specific criteria for minor and minor variances in regards to total allowed impact area. It appears variances have no maximum allowable footprint and can be permitted as long as mitigation sequencing is applied and impacts can be mitigated.</p>	The commenter is correct; and a flow chart might be helpful; we'll try to develop one. As to variance criteria, see WCC 22.07.050. There are no criteria in regards to total allowed impact area (though one would have to mitigate).
NES04	Molly Porter, Northwest Ecological Services	9/14/20	F	16.16.640(C)(1)(g) & 16.16.640(C)(3)	Both sections appear to require mitigation, as well as additional enhancement of 'existing degraded buffer area' to provide mitigation for the 'disturbed buffer area.' Please define 'degraded buffer area' and 'disturbed buffer area,' and provide additional clarity on how much additional enhancement may be required beyond the standard 1:1 and 1.25:1 mitigation ratios. Further defining these terms and the amount of enhancement that is expected will help clarify the application of this code section to specific projects.	Per DOE guidance "degraded" is the difference between existing conditions and a densely vegetated community. As each site is different, it would be difficult to have a code that accounts for every variation. We are trying to balance having a code that is a "cookbook" verses providing flexibility to homeowners and their consultants.
NES05	Molly Porter, Northwest Ecological Services	9/14/20	F	16.16.640(B)(1)(a) & (C)(1)(a)	Buffer averaging is preferred to buffer reduction [16.16.640(C)(1)(b)]. Sections 16.16.640(B)(1)(a) and (C)(1)(a) imply a development proposal cannot use a combination of buffer averaging in one area and buffer reduction in another.	Clarification has been added.

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					Clarification could be added to state buffer averaging is not allowed if the portion of impacted buffer has already been reduced. This would allow mitigation plans to use buffer averaging where feasible (preferred) and buffer enhancement to compensate for the remainder of buffer reduction.	
NES06	Molly Porter, Northwest Ecological Services	9/14/20	F	16.16.740, Table 4	Provide definition of a Type O stream. This stream type does not appear to be defined in the Washington Administrative Code (WAC 222.16.030), Washington Department of Natural Resources (WDNR) water typing system, or anywhere in the Code update.	A definition of the water types has been added.
NES07	Molly Porter, Northwest Ecological Services	9/14/20	F	16.16.710(C)(1)(b)(i)	Throughout 16.16.710(C)(1) the term "natural streams" has been revised to "natural waters." The term "waters" leaves ambiguity which could be interpreted to mean wetlands or water flowing out of wetlands. Under this definition, 16.16.710(C)(1)(b) would regulate any artificial man-made ditch that receives water from a wetland and categorize the ditch as a stream that would require a stream buffer. Many ditches, including roadside ditches, receive water from wetlands and could be regulated as streams. Is this the intent of this change? If not, for clarity, the term "natural waters" could be replaced "waters of the state" which is defined in (16.16.900).	Based on this comment we have amended the section to say "waters of the state" rather than "natural waters."
NWC01	Katrina Jackson, Northwest Wetlands Consulting	9/9/20	F	16.16.680	As written, it isn't clear that the area of substantial surface and the area beyond the substantial surface are no longer functioning as a part of the buffer protection. As I read it, the provision only seems to address the substantial surface itself.	Correct.
NWC02	Katrina Jackson, Northwest Wetlands Consulting	9/9/20	F	16.16.273	Can we presume that the minor variance is in addition to the standard buffer reduction? Otherwise the minor variance would force many more projects to the Hearing Examiner than under the current reasonable use. For example a 100' buffer would go to 75' minimum; then with minor variance the buffer could then be modified to 25% to 50% of that number or 56.25 or 37.5. When the 10' building setback is added, the relief is no way near what reasonable use is allowing currently especially on smaller lots where the separation is many times only 10' to 20' between the wetland and the foundation. As I describe the minor variance would still require a 66.25	The proposed new approach would allow the applicant to request, and the County to vary, any numerical or dimensional standard to provide reasonable development. It would be the duty of the Hearing Examiner to determine if a legally permissible project has been recommended.

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					foot to 47.5 foot separation between the foundation and the wetland. It is our belief that even a variance on the standard buffer reduction would overburden the Hearing Examiner if reasonable use would under the revisions be required to go to the hearing examiner. You state "They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number cases having to go to the Hearing Examiner." Perhaps you have better statistic than I do about the narrow buffers we have needed under reasonable use. I do a lot of work in Sudden Valley and for the most part many of the projects can stay about 35 feet from a critical area, but those would under the revisions be moved to the hearing examiner.	
NWC03	Katrina Jackson, Northwest Wetlands Consulting	9/9/20	F	16.16.265(B)(4)	<p>Is the intent that the conservation easement shall only apply to the specific altered buffer on properties containing critical areas and/or associated buffers? If so then it should so state. It seems since Notice on title is expected for properties that have critical areas and/or assoc. buffers that are not altered. My thoughts go to the properties that have an established house, want to put a shop in one corner and may need to alter a buffer to do so, but the permittee should not be asked to then identify all of the non-altered wetlands or buffers on the rest of the acreage. So then the applicant would do a conservation easement for the altered buffers and or wetlands, and then also a notice on title to cover any of the other critical areas that are unaltered. If all wetlands and buffer on the property are required to be placed in a CE when only one wetland and/or wetland buffer is altered, this would result in excessive wetland delineation, surveying of wetland boundaries, and reporting costs.</p> <p>Also alteration to buffers on a property should be allowed in the future modified to the full extent of the code provisions and not forced locked into a conservation easement when the first project might only be a minor modification.</p>	<p>The commenter raises a good point. We have revised the section to refer to the "review area."</p> <p>As to the 2nd point, our conservation easements do allow for future development as permitted by code.</p>
NWC04	Katrina Jackson,	9/9/20	F	16.16.680	It seems that some effort has been made in part of the code to	Comment noted.

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	Northwest Wetlands Consulting				use the label of compensatory mitigation. Thank you. When a violation occurs clearing or overlayment, once repaired the reparation area should not be then placed in a conservation easement. Because the word mitigation is still somewhat interchangeable in the code or in the minds of those enforcing the code, it needs to be clear that only compensatory mitigation areas are to be placed in conservation easements.	
NWC05	Katrina Jackson, Northwest Wetlands Consulting	9/9/20	F	16.16	<p>Administratively, through reasonable use, wetlands are being filled. This action does not show up as an administrative option under minor variance. As written it looks like wetland fill would need to go to hearing examiners as well. This again would send several more of the single family small residential lots to the hearing examiner. Basically I like the idea of administrative variance or minor variance, but with changes it looks significantly more restrictive than the current practices for what can be handled without going to the hearing examiner.</p> <p>You might also talk with the City of Bellingham. I was working on a stream buffer reduction below minimum standards, very soon after the hearing examiner had told the City to start handling these as an administrative variance and to quit sending them to the hearing examiner. I found this interesting.</p>	Staff's recollection is that staff has only been approving wetland fill for a SFR through administratively processed reasonable use exceptions (RUE) for the last 2 years, and that has only happened once. However, we do not believe that wetland fill (or other uses approve through an RUE ought to be approved by staff; thus the reason for the proposed change.
PA01	Paul Anderson	9/18/20	F	16.16.225(B)(8)	I recommend that this provision be listed "as excepted in WCC § 23.05.065," since it is not applicable for shoreline associated wetlands. Interpretation and enforcement of this section within shoreline jurisdiction is problematic as shoreline associated wetlands by definition (WAC 173-22-030(1)) have proximity and influence with the shoreline water and therefore, are not "functionally disconnected".	Based on this and discussions with DOE staff, we have deleted "functionally disconnected" from this provision. Additionally, based on communication with DOE staff, we have added that the wetlands have to have a habitat score of less than 6 to qualify.
PA02	Paul Anderson	9/18/20	F	16.16.260(G)(1)	Three years is not adequate to establish whether a mitigation site will successfully compensate for lost critical area functions, especially where that mitigation includes the planting of shrubs and trees. In terms of wetland mitigation, state and federal agencies have required a minimum of five years monitoring for several years and I recommend that five years be the minimum monitoring required in the SMP.	Though staff had not proposed to amend this section, based on this comment we realized that the existing code does not reflect current practices. We have updated this section to do so, and to address Mr. Anderson's comment.

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PA03	Paul Anderson	9/18/20	F	16.16.640(C) & 16.16.720(D)	<p><i>[Wetland] Buffer Width Reduction</i></p> <p>Allowing an outright reduction in buffer width will not protect critical area (wetland or fish and wildlife habitat) functions or shoreline ecological functions. The only time a reduction in adopted buffer widths should be allowed (no > than a 25% reduction) is when it is used with buffer averaging (see Buntén et al. 2016). To ensure that there is no net loss of shoreline ecological functions, I recommend that this provision be stricken within shoreline jurisdiction. This same concern and recommendation applies to 16.16.720.D. (Buffer Width Variance).</p>	We have added language to this section from DOE guidance, clarifying that buffer reductions are not allowed outright, but only under certain (DOE approved) circumstances.
PA04	Paul Anderson	9/18/20	F	16.16.710(C)(2)	<p><i>Habitat Conservation Areas – Designation, Mapping, and Classification: "Areas in which federally listed species are found, have a primary association with, or contain suitable habitat for said listed species, as listed in the U.S. Fish and Wildlife's Threatened and Endangered Species List or Critical Habitat List..."</i></p> <p>Within shoreline jurisdiction, this section needs to be edited to also include the National Marine Fisheries Service (NMFS), the federal agency responsible for managing marine species listed under the Endangered Species Act that includes Puget Sound Chinook salmon (<i>Oncorhynchus tshawytscha</i>) and Southern Resident killer whales (<i>Orcinus orca</i>). These two iconic species are of significant cultural, commercial and recreational importance for the Pacific Northwest and not acknowledging their importance and presence within the SMP is a substantial oversight. Due to its critical importance for Chinook salmon rearing and migration, NMFS designated the marine and estuarine nearshore (extreme high water to approx. 30 meters depth), including most of the Whatcom County coast, as critical habitat for the recovery of Puget Sound Chinook in September 2005 (see Federal Register, Vol. 70, No. 170, 9/2/05). NMFS is acknowledged as a regulatory agency in WCC §16.16.900 (Definitions; "Critical habitat").</p> <p>The marine and estuarine nearshore within the County meets the definition of a Fish and Wildlife Habitat Conservation Area in</p>	We have amended 16.16.710(C)(2) to include NMFS listings and critical habitat.

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					WAC 365-190-130 and, more importantly for the SMP, the definition of Critical Saltwater Habitat in WAC 173-26-221(2)(C). I respectfully recommend that the County include reference to NMFS-managed listed species in the SMP and that the marine and estuarine nearshore is designated critical habitat for Puget Sound Chinook. To simplify the permitting process and assist staff and applicants in understanding this update, I would also recommend that the salmonid habitat maps be updated to show the marine and estuarine nearshore as a regulated critical area.	
PA05	Paul Anderson	9/18/20	F	16.16.720 & 16.16.740	<i>Habitat Conservation Areas – Use and Modification and Habitat Conservation Area Buffers</i> Since shorelines and shorelands (associated wetlands) include more than just streams and the SMP protective standards apply to those other waters, I recommend changing “stream(s)” to “water(s)” in Table 3 (§16.16.720) and in §16.16.740. Also, since tidal waters include a number of species and habitats of cultural, commercial and recreational importance (e.g., shellfish areas; Chinook salmon), what is the rationale and science to support requiring a wider buffer on marine versus freshwater habitats; 150 and 200 feet, respectively? To ensure no net loss of ecological function, I recommend that the upland buffer on marine habitats be increased to 200 feet, which is well within the buffer range reported in the scientific literature (see Protecting Nearshore Habitat and Functions in Puget Sound; Protection of Marine Riparian Functions In Puget Sound, Washington; available from WDFW: https://wdfw.wa.gov/).	Amended per this suggestion (though in Table 3 only for the performance standards that apply to all waters.) And while the buffer is proposed to be 150’ in the marine areas, we are still managing for NNL in the entire shoreline jurisdiction.
WCPW01	Atina Casas, W/C Public Works	9/18/20	E	22.05.020	Shoreline Substantial is included in both the Type II and Type III sections of the table. The footnote (c) in the Type II section explains the circumstances when a Shoreline Substantial will be processed as a Type III. This footnote should also be in the Type III section for further clarity.	Comment noted.
WCPW02	Atina Casas, W/C Public Works	9/18/20	E	22.07.020(B)(1)	How will the applicant know what the dollar amount is when OFM changes it every 5 years? Will updated values be shown on the permit application form so applicants know if their project qualifies based on the current value at the time of application	Correct, the application is changed when OFM updates the amount.

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					submittal?	
WCPW03	Atina Casas, W/C Public Works	9/18/20	E	22.07.030(A)	<i>A. Shoreline substantial development permits are considered Type II applications pursuant to WCC 24 22.05.020 (Project Permit Processing Table).</i> For clarity, add a sentence that this permit could be considered a Type III application pursuant to 22.05.090(2) (Open Record Public Hearing).	We have modified the sections to clarify.
WCPW04	Atina Casas, W/C Public Works	9/18/20	F	16.16.680(H)(1)	Consider keeping the wetland buffer impact mitigation ratio 1:1 for public road and bridge projects. Mitigation is not possible before impacts. And between clear zone requirements for vehicle safety and limited right-of-way, there often isn't onsite area available to accommodate a 1.25:1 mitigation ratio.	The mitigation ratios are proposed to be amended to meet DOE guidance. Nonetheless, Public Works could choose to enhance publicly owned property now and apply the mitigation to future projects (i.e., advance mitigation).
WCPW05	Atina Casas, W/C Public Works	9/18/20	F	16.16.760(B)(8)	Consider an HCA buffer impact mitigation ratio of 1:1 for public road and bridge projects. Mitigation is not possible before impacts. And between clear zone requirements for vehicle safety and limited right-of-way, there often isn't onsite area available to accommodate a 1.25:1 mitigation ratio.	The mitigation ratios are proposed to be amended to meet DOE guidance. Nonetheless, Public Works could choose to enhance publicly owned property now and apply the mitigation to future projects (i.e., advance mitigation).
WCPW06	Atina Casas, W/C Public Works	9/18/20	F	16.16.900	Add a definition for Critical Facilities, which is referenced in 16.16.322.	A definition has been added.
WCPW07	Chris Elder, W/C Public Works	9/18/20	B	C/P Ch. 11	Under the Council approved scope of possible amendments, topic #6 highlights Climate Change/Sea Level Rise with the recommended action of "Develop and/or strengthen policies regarding climate change/sea level rise, including the incorporation and use of new data (as it becomes available), to review and revise, if warranted, shoreline use regulations". The proposed amendments to the Shoreline Master Program have not sufficiently addressed this topic based on available data including projected impacts of climate change and have not incorporated best management practices developed to address the projected impacts of climate change.	Policies regarding climate change/ sea level rise have been developed and/or strengthened and are proposed to be included in Chapter 11 of the CompPlan (pg. 11-30).
WCPW08	Chris Elder, W/C Public Works	9/18/20			Related to climate change, the most significant projected climate impacts related to the SMP update include sea level rise and increases in coastal and riverine flooding, both in magnitude and	Before adopting specific regulations, it seems like we'd need to know the details of likely sea level rise (location, elevation,

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					<p>frequency. I have included the several regional and state scientific climate data reports and data informed recommendations on how to incorporate projected climate change impacts such as sea level rise and increased coastal and riverine flooding into planning processes. The list of resources supplied is located at the end of this memo.</p> <p>It should be noted that Whatcom County is currently participating in development of a local Coastal Storm Modeling System (CoSMoS) which will further inform the extent of potential impacts of sea level rise combined with storm surge, wind currents, barometric pressure, and other environmental factors. Data from this effort will inform the magnitude and area of impact and will support selection of an actual sea level rise elevation and/or shoreline impact zone, but existing data already highlights that sea level rise has occurred and will continue to occur at an increasing rate.</p>	<p>magnitude, etc.) and anticipate the development of the CoSMoS model (on which the COB and WCPW are working), which should provide the best data for Whatcom County. The policies being introduced would set us up for developing such regulations once this model is completed.</p> <p>It should also be noted that in reviewing development proposals, PDS already requires structures to be built above the anticipated flood stage through the County's critical area (i.e., geohazard/tsunami) and flood regulations.</p> <p>Nonetheless, this is a policy decision and all comments will be forwarded to the P/C and Council.</p>
WCPW09	Chris Elder, W/C Public Works	9/18/20			<p>While this periodic update to the Shoreline Master Program may not spur development or adoption of an actual sea level rise projection for Whatcom County shorelines, staff recommends developing new code language that clearly identifies the projected impacts of sea level rise and increased impacts of riverine and coastal flooding within Title 23. Furthermore code improvement must require applicants pursuing development within the shoreline jurisdiction to perform a climate vulnerability assessment for the proposed action and highlight mitigation measures proposed to address projected climate impacts. This language will support applicants in mitigating climate risk to their private investment and will support local government in protecting public safety, private property, and environmental health.</p>	<p>Your comments will be forwarded to the P/C & Co/C for their consideration.</p>
WCPW10	Chris Elder, W/C Public Works	9/18/20			<p>The resources described below have been attached to this comment letter to support the above comments and recommendations:</p> <ul style="list-style-type: none"> The University of Washington's Climate Impacts Group Shifting Snowlines and Shorelines (2020) highlights this significant climate changes occurring within our region and does provide summary projections of potential changes in 	<p>Thank you.</p>

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					<p>sea level.</p> <ul style="list-style-type: none"> • The Extreme Coastal Water Level in Washington State (Guidelines to Support Sea Level Rise Planning) (2019) provides valuable guidance regarding incorporation of sea level rise projections into local planning. • Maps of Climate and Hydrologic Change for the Nooksack River Watershed (2017) highlights the projected changes in seasonal precipitation in the Nooksack River which projects an increase in winter precipitation over the next 30 years of between 9.5% and 20.8% which will contribute to increased magnitude and frequency of flooding. • Incorporating Sea Level Change in Civil Works Programs is a US Army Corps of Engineers regulation requiring consideration of sea level impacts on all coastal projects as far inland as the extent of estimated tidal influence and providing guidance for incorporating the direct and indirect physical effects of projected future sea level change across the project life cycle in managing, planning, engineering, designing, constructing, operating, and maintaining projects and systems of projects. • Integrating Climate Resilience into Flood Risk Management (2010) provides significant policy guidance and considerations. <p>Additional online resources that may support development of climate change related improvements can be found at the following sites.</p> <ul style="list-style-type: none"> • https://toolkit.climate.gov/ • https://toolkit.climate.gov/tool/adaptation-tool-kit-sea-level-rise-and-coastal-land-use 	
RES01	Ander Russell, Re-Sources	9/17/20	D	23.30.020	<p><i>SMP Scoping Document Item 5 : Consistency with Shoreline Management Act (RCW 90.58) and 2003 SMP Update Guidelines (WAC 173- 26) – Thank you for adding language referencing WCC Title 23 Shoreline Regulations 23.30.020 as it pertains to mitigation. We feel that in order to adequately address item 5b from the Scoping Document further clarification is needed on exactly what mitigation actions are needed for development. Please add clarification and reference WCC 16.16.</i></p>	<p>5b from the scoping document is “Clarify development mitigation requirements.” We feel we have done this in many sections of both Title 23 & WCC 16.16. While most of the “clarifying” has been done to the text of WCC 16.16, it pertains to shoreline permits since the CAO is adopted as part of the SMP.</p>

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RES02	Ander Russell, Re-Sources	9/17/20	D	23.40.020(G)	<i>Shoreline Bulk Provisions – Buffers, Setbacks, Height, Open Space and Impervious Surface Coverage</i> – Thank you for adding in language about the need for mitigation under G (Development activities allowed in buffers and setbacks). Please clarify and strengthen that language. Any impacts from activities happening within the critical area buffer must be mitigated please show how this will be done.	The text of that section clearly states, “provided...that they comply with all the applicable regulations in WCC Chapter 16.16, including mitigation.” Please note that mitigation requirements are in WCC 16.16, a part of the SMP, and that both need to be read together.
RES03	Ander Russell, Re-Sources	9/17/20	B & D	C/P Ch. 11 & Title 23	<p><i>Climate Change/Sea Level Rise</i> – Thank you for the updated language concerning climate change and sea level rise that was added to the Chapter 11 of the CompPlan (Exhibit B). We strongly support the recommended changes outlined by Futurewise and WEC for this scoping item. A comprehensive approach to addressing the impacts of climate change by protecting natural shorelines and other natural systems will help our community withstand and recover from the increase in those impacts over time.</p> <p>Please add language to reflect a focus on climate change and sea level rise impacts to Exhibit D. The SMP and CompPlan must do a better job at addressing sea level rise and other climate change impacts. We understand that the bulk of the revisions in this area have been added to Exhibit B. However, the words climate change and sea level rise do not appear at all in Exhibit D.</p> <p>Climate change impacts on sea levels, storm surges and riverine and marine flooding are extensively documented and must be planned for and addressed in all County regulations and planning documents. The County need not look any further than its own report on climate change impacts to have the data needed to develop and strengthen policies around climate change, flooding and sea level rise. Just this past winter Whatcom County was inundated with unprecedented flooding from heavy rains that breached dikes and submerged houses. The cost of the damage from the flooding between late January through early February was over \$4 million, \$2.5 million of which was related to road and infrastructure damage.</p>	<p>Before adopting specific regulations, it seems like we'd need to know the details of likely sea level rise (location, elevation, magnitude, etc.) and anticipate the development of the CoSMoS model (on which the COB and WCPW are working), which should provide the best data for Whatcom County. The policies being introduced would set us up for developing such regulations once this model is completed.</p> <p>It should also be noted that in reviewing development proposals, PDS already requires structures to be built above the anticipated flood stage through the County's critical area (i.e., geohazard/tsunami) and flood regulations.</p> <p>Nonetheless, this is a policy decision and all comments will be forwarded to the P/C and Council.</p>

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					<p>Further recommendations on how to incorporate climate change impacts on rising sea levels, storm surges, and riverine and marine flooding in to Exhibits B and D:</p> <ul style="list-style-type: none"> • Make the changes recommended by Futurewise/WEC to Exhibit B, policy 11 AA-5 and include new policy 11 AA-8 outlined in their letter. • We strongly support the addition of a Sea Level Rise section to Exhibit D. We support the language proposed for a new Section 23.30.080 by Futurewise and WEC in their letter. • Shoreline maps should be updated to include Best Available Science (BAS) and reflect any additional areas that are now considered within the 200' of the OHWM as a matter of shoreline jurisdiction. • Given the impacts of sea level rise on property and life, please prevent construction in areas that will be underwater in the next 30 years. The Washington Coastal Hazards Resilience Network has the best available science on this with various sea level rise projections depending on various greenhouse gas scenarios. • Whatcom County has over 50 Toxic Cleanup Sites in marine shoreline areas.³ Please add language about what steps can be taken to plan for Sea Level Rise impacts on those sites. Proactive steps to protect communities, water and habitat now will prevent high costs down the road. • Science around climate change, sea level rise, storm surges and their impacts is dynamic and evolving - often at a faster pace than required SMP update timelines. Strengthen the language around assessing and incorporating Best Available Science. Be specific about the intervals at which BAS will be assessed and what the process for incorporating BAS will look like. <ul style="list-style-type: none"> ○ Examples from local jurisdiction that incorporate climate impacts: <ul style="list-style-type: none"> ▪ The City of Tacoma has included many updates in their 2019 Periodic Update regarding climate 	

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					<p>change impacts. Below are the additions they are proposing which Whatcom County could incorporate:</p> <ul style="list-style-type: none"> ▪ A new general policy of "Evaluate sea level rise data and consider sea level rise risks and implications in the development of regulations, plans, and programs." (p. 66) ▪ New site planning policies: <ul style="list-style-type: none"> ○ "Development should be located, designed, and managed both to minimize potential impacts from sea level rise and to promote resilience in the face of those impacts, by such actions as protecting wetland and shoreline natural functions, incorporating green infrastructure, retaining mature vegetation, and considering soft-shore armoring wherever possible." (p. 69) ○ "Assess the risks and potential impacts on both City government operations and on the community due to climate change and sea level rise, with special regard for social equity." (p. 70) ○ "Promote community resilience through the development of climate change adaptation strategies. Strategies should be used by both the public and private sectors to help minimize the potential impacts of climate change on new and existing development and operations, including programs that encourage retrofitting of existing development and infrastructure to adapt to the effects of climate change." (p. 70) ▪ A new general policy for Critical Areas and Marine Shoreline Protection: "Protect natural processes and functions of Tacoma's environmen- 	

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					tal assets (wetlands, streams, lakes, and marine shorelines) in anticipation of climate change impacts, including sea level rise."	
RES04	Ander Russell, Re-Sources	9/17/20	B	C/P Ch. 11	<i>Scoping Document Item 8: Habitat</i> – Please address Scoping Document item 8a. We understand it is not necessary to have references to the WDFW and DNR Shore Friendly Program in the code in order for the County to mirror the program but referring to it adds weight and legitimacy for the use of practices outlined in the WDFW and DNR Shore Friendly Program.	8a is, "Reference WDFW and DNR's Shore Friendly Program." And you're right; the code need not reference all the helpful programs the state (or feds or County) manages. However, we have added reference to that program in C/P policy 11I-2, and we do provide such references to applicants here at PDS.
RES05	Ander Russell, Re-Sources	9/17/20	F	16.16.225(C)	Please make the following changes to strengthen weak language: <u>Development proposals shall seek to maintain ecological connectivity and habitat corridors whenever possible.</u> <u>Restoration of ecological connectivity and habitat corridors shall be considered a priority restoration and mitigation action.</u>	See response to RES07. Further, until actual wildlife corridors are identified, mapped, and adopted, trying to maintain a variable corridor width dependent on the species one's trying to manage would not be possible through piecemeal development review.
RES06	Ander Russell, Re-Sources	9/17/20	F	16.16.255(B)(3) & (5)	We support the addition of 16.16.255 B #'s 3 and 5	Comment noted.
RES07	Ander Russell, Re-Sources	9/17/20	D		Please add a wildlife corridor overlay to shoreline maps in Exhibit D or wherever else is relevant.	The only wildlife corridor that the Council has adopted is the Chuckanut Wildlife Corridor, which is shown on our critical areas maps. Our understanding is that the Council's Wildlife Advisory Committee is looking into recommending others (based on a scientific review), but until the Council acts to adopt any new ones we have nothing to map.
RES08	Ander Russell, Re-Sources	9/17/20	D		We are generally opposed to expansions of nonconforming overwater structures, and will make recommendations to P/C & Co/C on revisions to Chapter 23.50.	Comment noted (however, the code does not allow this).
RES09	Ander Russell, Re-Sources	9/17/20	D	23.40.160	<i>Recreation</i> – Item 13d: The language around trails within critical area buffers must be strengthened. Any impacts to any portion of the critical area buffer from recreational trails must comply with all applicable regulations in WCC 16.16 and be mitigated.	In general we have tried not to repeat every requirement of one code in another (i.e., those of 16.16 in T-23, and vice versa), as there is a general rule that

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						shoreline permits are subject to 16.16. Nonetheless, we have added subsection 23.40.160(A)(6) to remind folks.
RES10	Ander Russell, Re-Sources	9/17/20			<i>Cherry Point Management Area and heavy impact industrial zone</i> – We support the Aug 17 th draft revisions to the Cherry Point Management Area section of Chapter 11. Going further, to fully implement the Comprehensive Plan policy amendments for the Cherry Point industrial zone adopted by the County in May 2017, and to maintain consistency with the proposed Cherry Point Amendments—if adopted—additional amendments to other sections of the SMP are warranted. We intend to propose additional revisions, and will seek feedback from PDS and stakeholders before submitting specific language for consideration by the P/C this Fall. Particularly, specifications for where shoreline conditional use permits are required and conditional criteria should be updated further.	Comment noted.
RES11	Ander Russell, Re-Sources	9/17/20	F	16.16.745	<i>Scoping Document Item 18: Shoreline Setbacks/Riparian Management</i> – We were unable to see where language around Scoping Document item 18b had been added. Please provide specific language to show what incentives will be provided to enhance Fish and Wildlife Habitat Conservation Areas.	18(b) reads, “Provide incentives to enhance Fish and Wildlife Habitat Conservation Areas (FWHCA). Staff had added this to the scope as we had originally considered developing a site-specific shoreline buffer program wherein incentives to enhance would allow buildings be built closer to the shoreline. However, while exploring this option we determined that additional analyses of shoreline characterization would be required, and doing so was not part of the overall scope of a periodic update.
RES12	Ander Russell, Re-Sources	9/17/20	A & B		<i>Scoping Document Item 19: Water Quality</i> – Lake Whatcom is the drinking water source for 100,000 Whatcom County residents. Scoping Document item number 19 addresses Lake Whatcom water quality. However, no recommendations about Lake Whatcom have been added to this or any section in Exhibits A or B. Please add policy language about the importance of	Ch. 10 of the CompPlan already contains an entire narrative regarding this (pg. 10-22), as well as multiple policies (Goal 10-J and its policies, pg. 10-36, as well as multiple other policies throughout). We didn't think this all needed to be repeated.

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					Lake Whatcom as the source of drinking water for most County residents and about the current water quality improvement plan (TMDL). We understand that this language is referenced in Exhibit A, however that language is only in the narrative. Please add policy language (in Exhibit A and Exhibit B) about how the County will improve water quality specific to the TMDL for Lake Whatcom.	
RES13	Ander Russell, Re-Sources	9/17/20			<p><i>Scoping Document Item 22: No Net Loss</i> – Thank you for providing clarification in the Guide to Reviewing Draft SMP Amendments document, about the creation of a Not Net Loss Technical (NNL) memo. We support the creation of the memo and understand that it will be completed at an unspecified date after, “public review of draft amendments,” is completed.</p> <p>We agree with the statements made by Futurewise and WEC in their letter. It is very likely that until the County can show that it achieves NNL of shoreline ecological functions it may not be in compliance with the Shoreline Management Act and the Shoreline Master Guidelines.⁴</p> <p>Throughout the update clarification is needed on how no net loss (NNL) will be met and monitored. Please provide clarification in the memo of how the County will monitor activities such as forest practices, mining, construction of structures and trails, shoreline stabilization and all others in a way that will result in NNL of shoreline ecological functions.</p> <p>In order to restore salmon, orca and the shoreline ecological functions we all depend on we must think beyond bare minimum requirements. We know the NNL standard is not fully protecting shorelines and wetlands from degradation and we cannot afford to wait another 8 or 9 years for the next update.</p> <p>Please provide clarity on when the technical memo will be completed, allow for public input on the memo and if the memo or resulting actions, show that the SMP is not achieving NNL outline how NNL or net ecological gains, will be achieved and how those new standards will be incorporated in to the SMP, Comp-Plan and Critical Areas Ordinance.</p>	Comment noted. A draft will be provided to the P/C prior to their final action. The draft will need to be finalized once the Co/C has completed their review.

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RES14	Ander Russell, Re-Sources	9/17/20	C	C/P Ch. 8	Thank you for including the new Whatcom County Comprehensive Plan Chapter 8: Mineral Resource Lands in this recommended update draft.	Comment noted (though we believe you're referring to the <i>Marine</i> Resource Lands section).
RES15	Ander Russell, Re-Sources	9/17/20	D	23.30.050	<i>Vegetation Management</i> – Add language requiring the restoration of native vegetation and vegetation conservation standards (lawns and turf are prohibited) for any new building permits, expansions or change of use in the following areas: within 50' of the OHWM for Lake Whatcom or impaired water bodies on the 303(d) list.	Thank you. We had inadvertently left out some of the existing language of the vegetation management section, but have now reinserted it.
RES16	Ander Russell, Re-Sources	9/17/20	D	23.30.060	<i>Cultural Resources</i> – We support the suggestions added by Lummi Nation. Accept and approve all changes added by Lummi Nation in this section.	Comment noted.
RES17	Ander Russell, Re-Sources	9/17/20	D	23.40.040	<i>Agriculture</i> – We support staff's recommendation during scoping around manure holding facilities. We plan to make comments to the P/C & Co/C during this update process to, again, request that requirements be added that any manure holding facility permitted within the shoreline jurisdiction be in the form of above ground tanks or towers instead of earthen lagoons. In order to be protective of our waterways and groundwater, please make manure holding facilities a shoreline conditional use.	Comment noted (though we believe you brought this issue up during scoping, staff did not).
RES18	Ander Russell, Re-Sources	9/17/20	D	23.40.040	<i>Agriculture</i> – Along the same lines, to reduce the risk of contaminant run-off from flooding and seepage, consider making it mandatory for any new or replaced manure lagoons to be above ground in tanks or towers.	Comment noted.
RES19	Ander Russell, Re-Sources	9/17/20	D	23.40.140	<i>Mining</i> – We oppose the amendments to WCC 23.40.140, Mining. We support the language proposed by Futurewise and WEC in their letter. Please update this section with their language for 23.40.140(D).	Comment noted.
RES20	Ander Russell, Re-Sources	9/17/20	D	23.40.140	<i>Mining</i> – We recommend that the SMP Update prohibit motorized or gravity siphon aquatic mining and discharging effluent from this type of mining in shorelines that are the critical habitat for salmon, steelhead, or bull trout and that salmonids use for spawning, rearing, and migration. This is necessary in order to follow RCW 90.48.615(2).	We have added such language.
RES21	Ander Russell, Re-Sources	9/17/20	D	23.40.150	<i>Docks, Piers and Mooring Buoys</i> – Overwater structures, including docks, cause direct and indirect impacts to shoreline functions and habitat for salmon and forage fish like Cherry Point	Please review 23.40.150 again, as we believe we have accomplished these.

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					<p>herring during the construction process and over the useful life of the dock. The cumulative impacts of overwater structures are:</p> <ul style="list-style-type: none"> • "Increase in pollutants and habitat disturbance associated with boat operations and dock and piling maintenance", • "Increased travel distance and time for juvenile salmon and extended time in deeper water, increasing predation risk", • "Decrease in eelgrass and plant habitat and overall photosynthesis in intertidal zone", • "Alteration in juvenile salmon prey base and predation pressure", and • "Change in wave energy and longshore drift patterns, and resulting changes in upper intertidal sediment distribution" <p>Please make these changes concerning Overwater Structures:</p> <ul style="list-style-type: none"> • Add a clear preference for the use of mooring buoys. • Applicants must demonstrate conclusively that use of a moorage buoy, nearby marina, public boat ramp, or other existing shared facility is not possible. This includes providing evidence of contact with abutting property owners and evidence that they are not willing to share an existing dock or develop a shared moorage. For commercial/industrial facilities, this would include evidence that existing commercial facilities can't be shared or are inadequate for the proposed use. • Minimum grating requirements to allow for light. • Any dock, pier, and moorage pile must include an evaluation of the nearshore environment and the potential impact of the facility on the environment. 	
RES22	Ander Russell, Re-Sources	9/17/20	F	16.16.235(B)(4)	<i>Mitigation requirements for hazard trees</i> – Currently there's no requirement to mitigate, or replant, a hazard tree. We suggest adding a requirement to replant a native tree in an appropriate location on site for every hazard tree removed in the shoreline.	Please refer to 16.16.235(B)(4)
RES23	Ander Russell, Re-Sources	9/17/20	D	23.40.150	<i>Lake Whatcom</i> – The City of Bellingham's SMP (Title 22, BMC) makes many mentions of Lake Whatcom and discourages certain new uses and activities like docks (a whole section in BMC 22.09.060 "Piers, floats, pilings – Lake Whatcom and Lake Pad-	We have reviewed Bellingham's sections of code that you reference and do not see any discouragement as you say; in fact, there's has the same components as

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					den) and the spraying of herbicides (BMC 22.05.020(B)(1)(n)). Please consider mirroring the City's SMP regulations for Lake Whatcom.	ours.
RES24	Ander Russell, Re-Sources	9/17/20	D	23.40.190	<i>Bulkheads and Shoreline Armoring</i> – Bulkheads and other forms of hard armoring should be conditional uses because of their adverse impacts on the shoreline environment.	Comment noted. Please note that in the use table most of the hard armoring measures are either prohibited or require a CUP. For bulkheads specifically we did not change existing text. Furthermore, we did add text that prioritizes soft-stabilization measures, and that hard measures are of last resort.
PB01	Pam Borso	11/8/20	C	C/P Ch. 8	I would like to urge you to include the amendment to Whatcom County's comprehensive plan to include Marine Resource Lands as a way to recognize marine and tidal lands in Chapter 8 of the Comprehensive plan. Marine and tidal lands are as important as forestry, mining and agricultural lands. These lands are significant resources and along with the upland areas adjacent to them need to be protected for their cultural, social and economic values.	Your comments will be forwarded to the P/C for their consideration.
MS01	Mike Sennett	11/8/20	C	C/P Ch. 8	Whatcom County's geography stretches from the coasts of the Salish Sea to the Cascades, and all the watersheds of the three forks of the Nooksack River are gathered and delivered to the Salish Sea. It seems to me that the unique areas where land and ocean meet have been undervalued by the settler culture. The original functioning ecosystems that supported the indigenous peoples have been severely degraded. Estuaries and wetlands have been filled in, and development has sprawled along the shores in Sandy Point, resulting in shoreline armoring. Birch Bay, Drayton Harbor and The Lummi Nation's tide flats have been contaminated by dairy industry pollution. The lack of protection for our coast has resulted from a lack of recognition of its singular importance by the various governments that have oversight over those i areas. It is time to correct that myopia, and to recognize the important status of our marine lands. By adding the :Marine Resources Lands Amendment to Chapter Eight of the Comprehensive Plan,	Your comments will be forwarded to the P/C for their consideration.

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					joining Forestry, Agriculture, and Mining as codified land uses.	
KC01	Kim Clarkin	11/12/20	C	C/P Ch. 8	<p>I support calling out, recognizing and protecting Marine Resource Lands specifically in Ch. 8 of the Comprehensive Plan. I do not understand parts of the new section:</p> <ul style="list-style-type: none"> a. p8-36, para 1 makes it sound like MRLs are only marine shorelines. According to the map they actually extend to the county line. It would be helpful to describe the extent and exclusions in this section. The map shows that part of Bellingham Bay, Drayton Harbor and the shoreline around Blaine are excluded for unexplained reasons. Some of these areas are in special designations but there is no explanation of what these designations mean. Perhaps this could be clarified. b. On p8-39, Policy 8U-3 seems unnecessary. If it is meant to convey a specific meaning, could that be stated clearly? c. Policy 8U-4 refers to State marine resource lands within Whatcom County. I think we may mean State aquatic lands within the county. d. On p 8-41, goal 8W includes no policies. Is this because specifics are listed in other areas of the CompPlan? It would seem useful to incorporate policies related to e.g., reducing shading of near-shore habitat by piers and docks; reducing hard shoreline stabilization methods and incentivizing soft ones; preventing oil spills; removing creosote; protecting kelp and eelgrass beds, etc. If this is done elsewhere in the Comp Plan perhaps reference to those sections here would help integrate the Plan. e. I suggest including the boundaries of the Cherry Point Aquatic Reserve on the map. 	<ul style="list-style-type: none"> a. Portions of other jurisdictions' shoreline jurisdiction are excluded; the County has no jurisdiction there. b. You would have to ask the MRC. c. We believe the MRC chose the word "marine" instead of aquatic because they were focused on the <i>Marine</i> Resource Lands, not all aquatic lands. d. Goal 8W has no policies because the MRC did not propose any. e. Not a bad idea.
CPAPCSC 01	Cherry Point Aquatic Reserve Citizen Stewardship Committee	11/11/20	C	C/P Ch. 8	The CPAR CSC supports policies and regulations that further protect and enhance marine shoreline areas, such as the Cherry Point Aquatic Reserve. Therefore, the CPAR CSC writes this letter to express support for the Chapter 8 Marine Resource Lands addition to the Whatcom County Comprehensive Plan. This addition to Chapter 8 recognizes marine resource lands and designates long overdue protection of these marine resource lands that are vital economically, culturally, recreationally	Your comments will be forwarded to the P/C for their consideration.

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					and environmentally.	
BIAWC01	Jacquelyn Stryna, BAIWC	11/5/20	D, F		Terminology – There is initial concern about terminology that requires clarification, including terms such as “Type O water,” “functionally disconnected,” “habitat corridors,” and “ecological connectivity,” among others. Please clarify and specify where these terms are codified.	All terms are defined in Ch. 23. 60 (Definitions) of Title 23 or Article 9 (Definitions) of Ch. 16.16.
BIAWC02	Jacquelyn Stryna, BAIWC	11/5/20	F	16.16.265(A)(1)	Building setbacks – It is unclear why there is a need for building setbacks to be a minimum of 10 feet from the edge of a CA buffer (WCC 16.16). As currently written, the building setbacks further reduce the “reasonable use” footprints from a mere 4,000 square feet to 2, 500 square feet.	The 10’ building setback from critical area buffers is an existing rule (only moved in the amended version). It was adopted by Council to minimize impacts when maintaining structures (e.g., when putting a ladder up against a 2-story structure the bottom would need to stick out 5-10 feet) and to provide a “fire safe” area where combustible materials can be removed.
BIAWC03	Jacquelyn Stryna, BAIWC	11/5/20	D, F		SMP and CAO changes lend increased authority to the County over development, which restricts the freedom and business autonomy of home builders and homeowners alike. Private property rights are infringed upon with less autonomy for land owners and more authority for County government to determine garden and landscape decisions. Restated, the SMP and CAO updates specifically narrow the choices of home builders and homeowners for no reasonable benefit. These proposed updates extend County authority.	Your comments will be forwarded to the P/C for their consideration.
BIAWC04	Jacquelyn Stryna, BAIWC	11/5/20	F	16.16.270(C)(12)	Reasonable Use Exceptions/Reduction: Why is the County proposing a reasonable use reduction to such a small footprint of 2,500 square feet?	Staff has proposed to go back to the 2,500 sq. ft. maximum impact area we had prior to the 2017 Critical Areas update, as under a reasonable use exception granted by the Hearing Examiner no mitigation would be required.
BIAWC05	Jacquelyn Stryna, BAIWC	11/5/20	F	16.16.630(E)	Increased Buffers only further restrict land availability and choke the potential for a home to be built.	Your comments will be forwarded to the P/C for their consideration.
BIAWC06	Jacquelyn Stryna, BAIWC	11/5/20	D, F		Mitigation requirements cost burden projects and mitigation ratio changes impede autonomy in the construction schedule.	Your comments will be forwarded to the P/C for their consideration.
BIAWC07	Jacquelyn Stryna, BAIWC	11/5/20	D, F		All of the proposed land use modifications add to the overall project cost of building a house. This type of over-regulation directly contributes to the high cost of housing Whatcom County	Your comments will be forwarded to the P/C for their consideration.

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LSK01	Lesa Starkenburg-Kroontje, on behalf of John and Leanne Olson, Larry and Barbara Nims, and John and Gladys Van Boven	11/19/20	G	Shoreline Environment Designation Map	<p>is experiencing, plus constricts the availability of land supply.</p> <p>This letter is written on behalf of John and Leanne Olson and Larry and Barbara Nims, the owners of APN 390302 428076 0000 and 390302 485039 0000, and on behalf of John and Gladys Van Boven, the owners of APN 390302 440200 0000. Their property is located at the corner of East Pole Road and Everson Goshen Road and is depicted on the attached Assessor section map.</p> <p>My clients' property was designated as a shoreline of the state under the Shoreline Management Program during the 2008 Comprehensive Plan update. However, this entire property is part of the mineral resource overlay under the Whatcom County Code with permits to mine and the ability to change the configuration of the water body.</p> <p>In 2008 after the completion of the Shoreline Management Program update, the property owners were made aware of the designation. Whatcom County staff at the time believed that the owners had requested the designation. This was not the case. In fact, it was the Department of Ecology who mistakenly noted this area as requiring designation in their correspondence with Whatcom County in January of 2007. Had the property owner's been notified they would have explained the temporary configuration of the water body that is still actively mined.</p> <p>The property owners were told to correct the erroneous shoreline designation, they needed to wait until the next Shoreline Management Program Periodic Update. Since the periodic update time is upon us, it is now time to correct the designation. However, I see the error is continuing forward as the maps still note the area is designated as "shoreline".</p> <p>The Washington State Department of Ecology and Whatcom County have not made it a practice to designate mineral extraction sites as shorelines because the size and configuration of the shoreline is not certain until mineral extraction is complete and the mineral resource land zoning overlay removed from the</p>	Before a determination can be made, staff has requested of their attorney an approved reclamation plan.

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					<p>property.</p> <p>In fact, as mineral extraction, and its accessory uses, are considered the highest and best use for the property within the mineral resource land overlay it is presumed that expansion and contraction of the water body will continue over the course of many decades. To create a nonconformity for the preferred zoning use and the existing permits for a waterbody that may to temporary in nature is not good planning.</p> <p>This situation has been discussed many times in different permit settings with the County with the understanding that at this time of this periodic update the error would be corrected.</p>	
RFW01	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	11/12/20	A, B, C, E, G	C/P Ch. 10, Ch. 11, Ch. 8 & Title 22, & Shoreline Environment Designation Map	<p>We recommend that the P/C tentatively approve all Comprehensive Plan amendments proposed in Exhibits A, B, and C, as well as all proposed amendments to WCC Title 22 shown in Exhibit E, as well as the Shoreline Environmental Designations map.</p> <p>However, as our previous comments stated, we are recommending additional policies be added into the Comprehensive Plan, with corresponding development regulations updated in Title 22.</p>	Your comments will be forwarded to the P/C for their consideration.
RFW02	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	11/12/20	B	C/P Ch. 10	<p>Modify Policy 11AA-5 be modified to read as follows:</p> <p>Policy 11AA-5: <u>Whatcom County shall monitor the impacts of climate change on Whatcom County's shorelands, the shoreline master program's ability to adapt to sea level rise and other aspects of climate change at least every periodic update, and revise the shoreline master program as needed.</u></p> <p>Whatcom County shall^{should} periodically assess the best available sea level rise projections and other science related to climate change within shoreline jurisdiction and incorporate them into future program updates, as relevant.</p>	The P/C accepted this recommendation, though retained "should" (instead of "shall") in both the 1 st and 2 nd sentences.
RFW03	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich	11/12/20	B	C/P Ch. 11	<p>Add a new Policy 11AA-8 reading: <u>New lots and new and expanded development should be located so they will not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises.</u></p>	Your comments will be forwarded to the P/C for their consideration.

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	(Futurewise)					
RFW04	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	11/12/20	A	C/P Ch. 8	Add an additional policy, possibly under Goal 10D: <u>Protect natural processes and functions of Marine Resource Lands and critical areas in anticipation of climate change impacts, including sea level rise.</u>	Your comments will be forwarded to the P/C for their consideration.
RFW05	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	11/12/20	D, F	Title 23, Ch. 16.16	We recommend that the P/C table all changes to WCC 16.16 and WCC 23.40 until a No Net Loss memo is prepared.	A draft NNL addendum is anticipated in December 2020. The P/C will have it prior to any final action.
MM01	Mike MacKay	11/30/20	D	23.40.190(A)(8)	1. When hard shoreline stabilization measures are demonstrated to be necessary, they must: a. Limit the size of stabilization measures to the minimum necessary; and b. Assure no net loss of shoreline ecological functions, <u>including loss of substrate for forage fish spawning; and</u> c. <u>Regular beach nourishment must be provided to retain beach material with substrate size suitable for forage fish spawning; and,</u> d. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions.	Though the commenter cited §23.4.180, the text to which he is referring is found in §23.40.190(A)(8). Though staff agrees with the sentiment, we don't believe the addition to (b) is necessary, as loss of substrate for forage fish spawning is just one of many shoreline ecological functions already addressed in Ch. 16.16. Thus, it is one of many specific aspects already addressed by the general rules. Additionally, such areas are already designated as critical saltwater habitat, which is designated a Habitat Conservation Area in Ch. 16.16. The addition of (c) is similar (one specific aspect already covered by the general). But furthermore, beach nourishment is not always the best solution for all habitats. Determining whether beach nourishment is necessary should be determined through the Critical Area Assessment Report process.
MM02	Mike MacKay	11/30/20		23.50.020	Nonconforming Structures <u>H. Seasonal floating traps and weirs for enumerating salmon on</u>	Staff opposes this addition. We don't believe that we ought to blanket design-

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					<u>streams and rivers are considered a legally nonconforming structures, provided they do not impede river vessel transport or otherwise affect the normal functions of river flow and sediment transport.</u>	nate all seasonal traps and weirs as "legally nonconforming." To achieve this status, the structure has to have been in the same place prior to August 27, 1976—or permitted prior to being made non-permissible by a change in code—and remain in place without a gap of 18 months. The fact that they're seasonal and moved around makes that highly unlikely. Nonetheless, seasonal traps and weirs are considered a water-dependent use allowed in the aquatic environment and are permissible (though we can't recall when anyone's ever applied for a permit to install one).
MM03	Mike MacKay	11/30/20		23.060.060	"F" definitions <u>24. "Forage Fish" means a group of marine fishes such as surf smelt, sandlance, and herring which provide an important primary food sources for juvenile salmonids and other fish. Intertidal and subtidal gravel and sand sediments on many beaches provide the essential spawning and incubation habitat for surf smelt and sandlance.</u>	Staff isn't opposed to adding such a definition, but think it unnecessary as "spawning and holding areas for forage fish, such as Pacific herring, surf smelt and Pacific sandlance" is already included in the definition of "Critical saltwater habitat." Nonetheless, were it to be added it should be added to Ch. 16.16, not Title 23. However, the second sentence isn't really part of a definition of what these fish are, just a statement of the importance of sediment to them. Staff suggests not including it.
MM04	Mike MacKay	11/30/20		23.40.090	Fill and Excavation <u>9. Marine fill or excavation shall not impede the normal movement of juvenile salmon to move along the intertidal shoreline (salmon migratory corridor) or to force them into deeper water where they are subject to increased predation.</u>	Similar to comment MM01, we find this a very specific issue already covered by the general rules. Subsection (A)(1) (and other sections of Title 23) already state that shoreline uses and modifications cannot impact shoreline ecological functions and ecosystem-wide processes. Part of our goal for this update was to

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						reduce such redundancies and we don't think each section needs to list all the potential impacts a use or modification may have.
MM05	Mike MacKay	11/30/20		23.60.190	"S" definitions 1. <u>"Salmon migratory corridor" means the intertidal pathway used by juvenile salmonids during the first few months of saltwater migration. This intertidal habitat provides protection from predators during initial entry into saltwater.</u>	Again, were such a definition added it should be added to Ch. 16.16, not Title 23. Nonetheless, staff doesn't think this definition is needed as the term is not used in either Ch. 16.16 or Title 23.
NWSF01	Eleanor Hines, NW Surfrider Foundation	11/11/20	C	Marine Resource Lands	Writing to express our strong support for the addition of marine resource lands in chapter 8 in the Comprehensive Plan. Agriculture, forest, and mineral lands are already recognized in the Whatcom County Comprehensive Plan, so the addition of Marine Resource Lands to Chapter 8 is fully supported by the Surfrider Northwest Straits Chapter. We only regret that Marine Resource Lands were not included sooner as they are extremely important economically, culturally, recreationally, and environmentally to Whatcom County. Marine resource lands deserve the same protection as our other resource lands and would add a unique protection from other current policies and regulations. We strongly support the inclusion of education and recreation in this section, and we ask that appropriate resources and capacity are allocated to ensure the Chapter 8 additions are fulfilled. We will continue to advocate for the effective and sustainable management of our marine resource lands so that future generations enjoy all the economic, cultural, recreational, and environmental benefits they provide.	Your comments will be forwarded to the P/C for their consideration.
RFW06	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	12/10/20	B		Add new Policy 11AA-8: <u>New lots and new and expanded development along the marine shoreline should be located two feet above the OHWM so they will not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises. Sea level rise elevation data shall be revised every eight years or when the SMP is updated.</u>	Your comments will be forwarded to the P/C for their consideration.

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RFW07	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	12/10/20	D	Ch. 23.30	<p>Add new section:</p> <p><u>23.30.080 Sea Level Rise.</u></p> <p>A. <u>New lots shall be designed and located a minimum of two feet above the OHWM so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</u></p> <p>B. <u>Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</u></p> <p>C. <u>New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.</u></p>	Your comments will be forwarded to the P/C & Co/C for their consideration.
RFW08	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	12/10/20	D	23.40.010	Modify Table 1, Shoreline Use by Environment Designation: Change Liquid Manure Storage Facilities and Spreading from a Permitted use to a Conditional Use for the Rural, Resource, and Conservancy Shoreline environments.	
RFW09	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	12/10/20	D	23.40.040	<p>Agriculture – Add to subsection (A) General:</p> <p><u>6. Replacement manure storage facilities must be tanks or towers.</u></p> <p><u>7. All new manure storage facilities must be tanks or towers.</u></p>	Your comments will be forwarded to the P/C for their consideration.
RFW10	Ander Russell & Eddy Ury (ReSources), Rein Attemann (Washington Environmental Council), and Tim Trohimovich (Futurewise)	12/10/20	D	23.40.140	<p>Mining – Add:</p> <p><u>D. Mining in the 100-year floodplain, floodway, or channel migration zones shall meet the following standards:</u></p> <p>i. <u>Mines should be located outside the channel migration zone unless there is no feasible alternative site.</u></p> <p>ii. <u>Mines shall be no deeper than the bottom of the nearby streams and rivers.</u></p> <p>iii. <u>The mine reclamation plan shall have a design so that when the river or stream moves into the mine it is not so wide or deep that the captured sediments destabilize the</u></p>	<p>Your comments will be forwarded to the P/C for their consideration.</p> <p>(Were this added it should probably be (B)(2), not (D).)</p>

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					<u>river or stream or increase erosion risks on upstream properties.</u>	
RFW11	Karlee Deatherage (Resources), Tim Trohimovich (Futurewise), & Rein Attemann (WEC)	1/12/21	B	11AA-8	Add new policy: <u>11AA-8: The buildable area of new lots and new and expanded development along the marine shoreline should be located two feet above the OHWM so they will be at a lower risk of damage and not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises. The part of the ownership waterward of the buildable area may be used as required open space. If new data is available, sea level rise elevation data shall be revised during the SMP periodic update.</u>	This is a revised proposal after speaking with staff about our implementation concerns. Though staff still takes the position that we should await the CoSMoS model to be completed for Whatcom County, this policy is probably implementable.
RFW11	Karlee Deatherage (Resources), Tim Trohimovich (Futurewise), & Rein Attemann (WEC)	1/12/21	D	23.30.080	Add new section: <u>23.30.080 Sea Level Rise.</u> A. <u>The buildable portion of new lots shall be designed and located a minimum of two feet above the OHWM so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time. The part of the ownership waterward of the buildable portion may be used as required open space.</u> B. <u>Where lots are large enough, new structures and buildings shall be located a minimum of two feet above the OHWM so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</u> C. <u>New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.</u> How the language will work in practice Currently new shoreline development must locate the ordinary high-water mark as part of the application for a shoreline exemption or shoreline permit. The proposed policy and regulations simply require the applicant to locate the buildable area for	This is a revised proposal after speaking with staff about our implementation concerns. Though this tact may be implementable, staff still takes the position that we should await the CoSMoS model to be completed for Whatcom County. There isn't a requirement to address climate change/sea level rise in the SMA, though we could if Council desires. However, what we understand from the DOE is that any such regulations should be built on data, which is what PS-CoSMoS will be providing. Furthermore, once the data is available, we should perform vulnerability and risk assessments to see what kind and where the problems might be, and update our shoreline inventory and characterizations. Without such science, we would be open to challenges.

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					<p>new lots or the new development two feet above the ordinary high-water mark. Where existing lots are not large enough to accommodate this requirement, the new structures or buildings can be elevated. Determining the location of the area two feet above the ordinary high-water mark will require little addition time or expense.</p> <p>Why two feet of elevation? The two feet of elevation is based on the Projected Sea Level Rise for Washington State – A 2018 Assessment for Whatcom County. These science-based projections were prepared by a collaboration of Washington Sea Grant, the University of Washington Climate Impacts Group, Oregon State University, the University of Washington, and the US Geological Survey.³ These projections incorporate:</p> <ul style="list-style-type: none"> • New science showing the potential for higher sea level rise in the 21st century. • The projections are “community-scale.” They were prepared for 171 locations distributed along Washington’s coastline including Puget Sound. The projections account for variations “in the rate of vertical land movement across the state.”⁵ That is: the projections include whether an area is uplifting or subsiding. • The report was peer-reviewed. <p>Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. The National Research Council concluded that global sea level had risen by about seven inches in the 20th century. A recent analysis of sea-level measurements for tide-gage stations, including the Astoria, Oregon and Seattle Washington tide-gauges, shows that sea level rise is accelerating. The Virginia Institute of Marine Science (VIMS) “emeritus professor John Boon, says “the key message from the 2019 report cards is a clear trend toward acceleration in rates of sea-level rise at 25 of our 32 tide-gauge stations. Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns.” We hope the P/C agrees that it is time to address this</p>	

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					accelerating problem.	
KC02	Kim Clarkin	1/10/21	D	23.50.010(E)	<p>I support the proposed changes to regulations of non-conforming uses, structures, etc. that are to be replaced.¹ I do not believe we should approve replacements that are non-conforming. We are attempting to improve--not just maintain--the habitat and other conditions of our shorelines. Replacement should be an opportunity for bring shorelines up to our current standards and guidelines. Please vote to modify title 23 to accord with this goal.</p> <p>[¹ Note: Staff believes Ms. Clarkin is referring to Commissioner Hansen's proposal to delete the ability of a nonconforming use to change to another type of nonconforming use.]</p>	Whatcom County has some of the most lenient nonconforming regulations around, and allowing a nonconforming use to switch to another type of nonconforming use is rather rare. Nonetheless, this is what our existing nonconforming use regulations in WCC Title 20 (Zoning) allow, so staff has prepared this section of the SMP to mimic those regulations.
PB02	Pam Borso	1/11/21	D	23.40.140	<p>Please approve the following amendment to the Shoreline Management Act as presented by Jim Hansen:</p> <p>Chapter 23.40.140 Mining: Changes to Prohibit Commercial Gravel Bar Scalping</p>	<p>Gravel mining in our rivers is currently allowed. However, it is difficult to permit given other state and federal regulations, especially the Endangered Species Act (which is why we don't see much of this activity). However, Council has indicated a desire to allow some gravel mining. This desire is expressed in their docketed item PLN2019-00011:</p> <p>"Amend the Whatcom County Comprehensive Plan and Whatcom County Code to allow the seasonal extraction of sand and gravel from dry upland areas located within the 1,000 year meander zone of the Nooksack River, provided that such extraction has no negative impact on salmon spawning habitat.</p> <p>The intent is to (a) reduce the conversion of land currently used for farming, forestry and wildlife habitat into gravel pits, and (b) safely remove some of the significant sediment load that enters the Nooksack every year in an effort to re-</p>

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						duce flooding and the need to build higher flood prevention berms along the river as the climate continues to change."
PB03	Pam Borso	1/11/21	D	23.50.010(E)	<p>Please approve the following amendment to the Shoreline Management Act as presented by Jim Hansen:</p> <p>Nonconforming Uses: Jim will propose a change that will no longer allow the replacement of one shoreline nonconforming use (Grandfathered) with another different nonconforming use.</p>	See response to KC02
MM06	Mike MacKay	1/1/21	D	23.40.140	<p>Please consider language which would prohibit mining (gravel scalping) in the Channel Migration Zone.</p> <p>I have firsthand experience how this activity can seriously impact endangered Chinook salmon in the Nooksack River. I was doing field surveys at the time as a fisheries biologist with the Lummi Tribe. These were spawner surveys documenting locations of Chinook and Chum redds (salmon nests). This took place in late September in the 1980s at a sandbar downstream of the Everson Bridge on the right bank (North side).</p> <p>At that time it was not widely known about Chinook spawning in that part of the lower river. I had talked to several gravel scalping company employees during this activity and they vehemently denied seeing any salmon spawning at these excavation sites. WA Fish and Wildlife had reluctantly issued permits for gravel scalping activities. Operators were required by WDFW to re-grade areas they excavated at the end of each day. Unfortunately this was routinely ignored.</p> <p>In this case of the Everson sandbar, the bar was dredged and the sand/silt/gravel material was stockpiled in large heaps immediately upstream of several active Chinook redds that I observed being constructed. A few days later there was a high flow event, as is common this time of year during rainstorms (late September). The stockpiled mounds were eroded away and essentially covered the redds downstream I had observed earlier. I carefully documented this with an report and photos which</p>	See response to PB02

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					<p>was sent to WDFW permit writers. Since this time WDFW has been reluctant to issue new permits for this activity on the Nooksack River.</p> <p>I have researched the effects of fine sediments on salmon redds in the literature. What occurs is that the fines less than 0.5 mm are driven down into the stream bed by the swift water into the newly built redd(s) and form a layer which effectively suffocates the eggs. This fine sediment impedes the flow of oxygenated water around the egg pockets. Adult female salmon are careful to remove fine sediments from the redd during their excavation and egg laying. While some natural occurring fines accumulate in the egg pockets as the result of high flow events, this amount usually doesn't restrict flows of circulating water to any large extent, and certainly not to the degree that an eroded nearby source of newly excavated sediment would.</p> <p>There are numerous sandy/gravel areas in the lowlands of Whatcom County not adjacent to the river available for gravel extraction. Gravel scalping should not be an allowed activity in the Channel Migration Zone or next to any flowing rivers or streams.</p>	
KC03	Kim Clarkin	1/12/21	D	23.30.080	I support the additional policy and regulation proposed by Futurewise, RE-Sources, and WEC regarding limiting new and expanded near-shore building to 2' above the OHWM. Given the projected sea levels in future, and the uncertainty surrounding the exact figure, 2' seems to me an excellent choice. We should definitely not permit people to build right at current OHWM if we want to protect their safety and investment. Please incorporate the additions to Chapter 11 of the Comprehensive Plan, and WCC 23.30.	See response to RFW11.
NTNR01	Michael Maudlin, Nooksack Tribe Natural Resources staff	1/13/21	D	23.30.070	<p>Public Access</p> <p>Trail construction within the shorelines buffer is a long-term, permanent impact to instream habitat. The loss of wood recruitment to the channel due to the removal of hazard trees and maintenance of downed wood across the trail needs to be considered in the assessment of trail impacts. The interruption of the process of natural wood delivery to the channel is largely</p>	While the writer's point may be valid, the SMA identified public access to the shorelines as a preferred use (and one of the driving forces in its adoption). While WCC Ch. 16.16 contains numerous standards for where trails may be located in critical areas and how they're built,

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					responsible for the degraded instream habitat conditions for threatened fish stocks and has led to local salmon recovery partners spending millions of dollars installing artificial logjams to offset this impact. Where trails align with existing roads or levees that already receive maintenance this is less of an additional impact, but siting recreational development within the shorelines buffer should be discouraged to be consistent with other general regulation sections.	WCC 16.16 does not address maintenance. We suggest you work w/ Whatcom County Parks Department to address this issue.
NTNR02	Michael Maudlin, Nooksack Tribe Natural Resources staff	1/13/21	D	23.40.140	Mining The Nooksack Natural Resources Department strongly opposes gravel mining in the active channel area and bars of the river. The history of instream habitat degradation associated with past mining operations has been well documented by the Lummi Nation and with the subsequent listing of fish stocks under the Endangered Species Act gravel removal from the channel is not a viable commercial activity. The disturbance from gravel mining can directly impact salmon habitat, disrupt the aquatic food web, degrade water quality, disturb emergent vegetation and alter the natural process of sediment transport and storage- all of which the SMP is designed to protect. It is simply not possible to design and conduct in-channel mining activities that will not lead to a loss of ecological function and natural process. Any sediment management activities in the river, including removal for flood management, need to maintain consistency with the WRIA 1 Salmon Recovery Plan and the on-going integrated floodplain management planning effort. This section should be edited to prohibit gravel mining from the river.	Your comments will be provided to the P/C & Co/C.
NTNR03	Michael Maudlin, Nooksack Tribe Natural Resources staff	1/13/21	D	23.40.160	Recreation As previously mentioned, trails can be a permanent impact to critical area buffers. It is important to make sure that trail location is not degrading riparian function. Limiting trails to the outer 25% of the buffer will help preserve potential wood recruitment to the channel. Ideally, recreational infrastructure would be cited outside of buffer areas to the fullest extent possible.	We agree, and WCC 16.16 does limit trail construction to the outer 25% of the buffer (except in certain limited circumstances) and mitigation is required.
MES27	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.225(D)	Replace "associated with marine, river, or lake shorelines and wetlands" with "within designated critical areas and/or buffers." The term "associated with marine, river or lake shorelines and	This new section is intended to address the SMA's requirement to preserve native plant communities associated with shore-

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					wetlands" is vague. This could imply any native plant communities any distance from a marine area, river, lake or wetland. It seems the intent should be to prioritize native plant communities within designated critical areas and/or buffers – that are specifically covered within this chapter of the CAO. Otherwise, it seems the code would be directing applicants to design projects based on plants and plant communities not covered by the CAO.	lines. Though shorelines are considered critical areas pursuant to 16.16.710, staff thought it would be easier for people to understand this rule by if we just call them out. Thus, this wouldn't expand CAO requirements outside of intended areas. Though it could be changed to read as suggested, it wouldn't have any effect on the regulation. The term "associated" refers to associated with... shorelines, as detailed in the WAC.
MES28	Ed Miller, Miller Environmental Services	2/19/21	F	6.16.255(C)(3)	Strike the new added section "Critical areas assessment reports shall... identify impacts of the proposed use/development on habitat corridors, ecological connectivity, and habitat for salmon and forage fish." Currently, Biodiversity areas and corridors are a WA Fish and Wildlife (WDFW) Priority Habitat. All WDFW priority habitats are currently regulated as HCA's in the CAO. As such applicants are already required to address them. Additionally, habitat for salmon and forage fish are also HCA's covered in the code, as all streams and waters are included as HCA's. The term ecological connectivity is very general and could be widely interpreted to mean many different habitats not covered under the CAO. Otherwise, if that is not staff intent, it would appear this extends CAO jurisdiction over areas not designated as critical areas within the code.	This language, along with other additions, was added to address Council's direction in the Scoping Document to "Consider strengthening ecological connectivity and wildlife corridor requirements" and "Consider ways to improve protections for salmon and forage fish habitat" (Items #8b and 8c). Though, as Mr. Miller argues, Biodiversity areas, wildlife corridors, and WDFW Priority Habitats are designated as critical areas already, addressing them in critical areas assessments was often overlooked. The text was inserted as a reminder that – if there are any such features affected by a development proposal – they should be addressed in the assessment.
MES29	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.270	This section is a complete rewrite of reasonable use procedures and would require a variance (minor and major variance) before reasonable use would apply. Strike the proposed changes and return to the prior language.	The change better aligns with Department of Commerce and Department of Ecology guidance on Reasonable Use Exceptions. The current and previous CAO did not follow the guidance from State Agencies. The existing code does require a variance process to be completed before a reasonable use exception is granted. The

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						Hearing Examiner has questioned why he isn't the final decision maker, as the current code allows an administrative determination to be made after a quasi-judicial decision, and in the hierarchy of permitting, applicants should have to exhaust any administrative remedies before seeking a quasi-judicial decision. Thus, we have rewritten the processes and changed the order of the various mechanisms so that the more impactful cases are heard by the Hearing Examiner. Please see the staff report to the P/C dated 4/12/21 for a more detailed explanation as to why staff is proposing this new schema.
MES30	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.270(j)	Add the italicized text at the end of the sentence, "The project includes mitigation for unavoidable critical area and buffer impacts in accordance with the mitigation requirements of this chapter <i>or if the mitigation requirements cannot be met, to the maximum extent feasible on the property.</i> "	The section to which Mr. Miller refers is language proposed for deletion. Nonetheless, under the proposed RUE rules, his suggestion would be already be the case.
MES31	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.270(C)(12)	We also propose adding language for the reasonable use section to allow for a development footprint of up to 4,000 square feet for reasonable use single-family residential development. Buffer mitigation should be proposed to offset impacts from reasonable use development as much as possible, but development shall not be denied if the minimum 1:1 mitigation ratio cannot be achieved on the subject property. This would not apply to direct impacts to critical areas themselves, as is the case in the current code. The proposed change is a significant alteration to the code. A significant number of previously designated reasonable use projects, processed administratively, would need to go to the hearing examiner. This will significantly increase costs and time to applicants for simple single-family construction or projects with only buffer impacts – as the current code requires an open	The P/C has already tentatively voted to leave the allowable disturbed area as 4,000 sf. Please see the staff report to the P/C dated 4/12/21 for a more detailed explanation as to why staff proposed to go back to the 2,500 sf under our proposed new schema.

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					public hearing for anything more complex. The change to section j is included so that applicants aren't required to purchase another property for mitigation – which has been required in some cases, precluding any development at all (even for buffer impacts).	
MES32	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.620(D) & .720(D)	Strike the change to “existing legal lots” and keep the current language of “private development sites” in both wetland and HCA sections. This section as modified implies that no new lots could be created (subdivided) if a road would be needed to cross through a wetland or buffer or habitat conservation areas. Access to acres of unencumbered property could be restricted if one small wetland or its buffer would need to be impacted to access a development area.	We believe that Mr. Miller was reviewing an older draft, as this language has already changed. Furthermore, subsection (C) continues to allow for stream crossings to undeveloped land.
MES33	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.630(B) & 6.16.740(A)(1)	Retain the existing language stating that “buffers shall not include areas that are functionally and effectively disconnected from the wetland (or HCA) by an existing, legally established road or other substantial developed surface,” rather than the proposed “buffers shall not include areas of existing, legally established substantially developed surface”. The proposed change would allow buffers to include disconnected area on the opposite side of roads or developed surfaces (such as buildings).	The amendment is proposed so as to be completing consistent with DOE's guidance and not just the portion about functional disconnect. (See Ecology Wetland Science Volume 2.)
MES34	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.640(A)(5)	Regarding Buffer Width Increasing, strike this added section, which is not in the current code and allows staff to extend any Category II wetland buffers out to 300 feet if another wetland or HCA is within 300 feet. HCA's include mature forest, priority snags (logs on the ground, 20 feet long, 12 inches wide), streams, etc. The intent of this appears to be to increase buffers if adjacent critical areas are present. However, this is already accounted for in the wetland rating form. The habitat score, which drives the buffer width, is scored higher if habitat conservation areas are within 330 feet. The proposed draft change seems redundant when these factors are already utilized in determining the buffers in the current code - based on the wetland rating form.	The existing code already allows the Director to increase buffer widths, but with less guidance, which consultants are usually clamoring for. Thus, we “borrowed” language from Skagit County, which provides better detail on when the Director can do so. We don't see how this would result in a double counting towards buffer requirements
MES35	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.640(B)(2) & 16.16.745(B)(2)	Regarding Buffer Width Averaging, strike the proposed language “In the specified locations where a buffer has been re-	In 2005 the Department of Ecology released two volumes of Best Available

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					<p>duced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value."</p> <p>This new language effectively eliminates the intent of buffer averaging and converts it to buffer reduction by requiring mitigation. Buffer averaging is an important and simple way to allow more flexibility for property owners that need to make minor buffer adjustments. This section will also reduce consistency and predictability (each staff member could apply this differently), and will increase the cost for simple projects by requiring plantings, monitoring, bonding, etc. by thousands of dollars. Additionally, the Director already has the ability to require plantings in a wetland or HCA buffer where it lacks adequate vegetation under 16.16.630.D or 16.740.B.1 – making this code addition redundant.</p>	<p>Science: Volume 1 was a synthesis of knowledge to date, and Volume 2 addressed management recommendations. Ecology addresses buffer averaging in two locations, the first is in Volume 2 section 8.3.8.3 (Buffer Averaging) and the second, in greater detail, in Appendix 8-C (Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System). In Volume 2, Section 8.3.8.3, Ecology explains three reasons why buffer averaging is in the tool kit for protection of wetlands. The first and typical reason is to allow development to occur closer than usual to the wetland in order to fit a particular development "footprint" onto a given site. The second reason is protect a natural feature (e.g., a stand of trees or snags) that otherwise would fall outside of the standard buffer. And the third reason is to provide connections with adjacent habitats or to address those situations where pre-existing development has reduced a buffer area to a width less than the required standard.</p> <p>In Appendix 8-C Ecology states "widths of buffers may be averaged if this will improve the protection of wetland functions or if it is the only way to allow for reasonable use of a parcel. There is no scientific information available to determine if averaging the widths of buffers actually protects functions of wetlands." Ecology then proceeds to provide criteria for averaging a buffer: 1) It should not be reduced by more than ¼; 2) the area of the standard</p>

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						<p>and averaged buffer are the same; and 3) the buffer is increased adjacent to the higher functioning buffer, and there is a distinct difference between the higher functioning and lower functioning buffers. The requirement for a high function and lower function buffer eliminates the use of averaging when the buffer is entirely degraded.</p> <p>Thus, staff recommends that we amend the draft language to allow buffer averaging only when there is fully functioning and degraded habitat and add language that supports Ecology's Guidance for allowing averaging to protect ecologically significant areas outside of the buffer or habitat connectivity. Section (B)(2) would read:</p> <ol style="list-style-type: none"> 1. Averaging of required buffer widths will be allowed for the following when the dimensional standards of subsection (B)(1) are met: <ol style="list-style-type: none"> a. To protect a natural feature (e.g., a stand of trees or snags) that otherwise would fall outside of the standard buffer. b. To provide connections with adjacent habitats or to address those situations where pre-existing development has reduced a buffer area to a width less than the required standard.
MES36	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.640(C)(1)(c)	Regarding Buffer Width Reduction, retain the existing language that allows for up to 50% reduction (or 25 feet) for Category IV wetlands, rather than the proposed "The buffer shall not be re-	The maximum reduction of 75% through buffer averaging is based on DOE guid-

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					duced to less than 75% of the standard buffer. The existing code section allows for up to a 50% (or minimum of 25 feet) reduction of a Category IV wetland buffer, while higher category wetlands are restricted to a 25% reduction. Under the draft buffer averaging section, Category IV wetlands are still allowed up to a 50% reduction. This will just remove some flexibility for property owners for the lowest category of wetlands.	ance.
MES37	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.640(C)(1)(e)(iii)	Regarding Buffer Width Reduction, strike the new added section requiring "Retention of existing native vegetation on other portions of the site in order to offset habitat loss from buffer reduction." This added code section appears to increase CAO authority to other areas of the property and other project components outside of critical areas. Staff already has authority to deny proposed buffer reductions, under parts D, F and G of this code section. Part G of this section already requires mitigation for buffer reduction impacts and result in equal or greater protection for the wetland.	This section does not expand CAO authority to areas outside of critical areas; it only provides a pathway to having narrower buffers (see response to item 5, above). The proposed subsections (e) & (f) provide three ways to for an applicant to minimize impacts and provide equivalent functions and values. Subsection (iii) of these subsections lists just one of the ways an applicant of a moderate impact land use project may apply low intensity buffer widths, which are narrower. An applicant need not do this if they don't want to reduce their buffers (the wider buffers would then apply).
MES38	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.640(C)(3) & 16.16.745(C)(2)	Regarding Buffer Width Reduction, strike the draft added section "where a portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area." The new language appears to be redundant; C.2.g of the wetland section and C.1.g of the HCA section already requires mitigation and no net loss of function for any buffer reduction. Additionally, Section 16.16.630.D and 16.16.740.A.2 also gives the Director authority to require planting in degraded buffer if needed. The draft language implies any amount of degraded buffer could be required to be planted for buffer impacts, no matter how small. This would penalize applicants who own agricultural property and/or grass/hayfields.	The planting of degraded buffers has been a part of our CAO since 2005 and is based on Best Available Science and DOE guidance. Based on case history, we are only clarifying that the area that might be enhanced is limited to the specific portions of the buffer being reduced, not anywhere on the lot, and certainly not outside critical area buffers (and thus does not "grant unlimited potential for mitigation requirements"). Per DOE guidance, "degraded" is any portion of a buffer that is not in a densely vegetated community. Ecology provides this re-

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						quirement in Appendix 8C, Section 8C.2.5 to either increase the buffer or enhance with native vegetation. Ecology's guidance for buffer size is based on science with a densely planted vegetative buffer.
MES39	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.680(H)	<p>Regarding Wetland Mitigation Ratios, maintain the existing language and strike the proposed language that requires a higher ratio of mitigation when it's done after the impact occurs.</p> <p>Generally, applicants do not conduct mitigation activities prior to permit approval, and generally go to construction as soon as permits are issued. Additionally, mitigation planting is often tied to the planting season – which is preferably fall through spring to increase survivability. This added code language would appear to add a year to applicants' timeline or penalize them with up to 25% more buffer mitigation. Additionally, no net loss of buffer function already required under 16.16.640(C)(2)(g).</p>	This proposed requirement comes from DOE guidance to account for temporal loss.
MES40	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.710(C)(1)(a)(vi) & 16.16.740(B)	<p>Strike this addition of Type O waters and associated 25-foot buffer. Return the prior designation of Natural Ponds to the buffer Table requiring a 50-foot buffer.</p> <p>The definition of Type O waters is vague and could potentially include ditches and artificial ponds. Type O waters do not correlate with Washington State water typing. If the intent is to include ponds as an HCA, we recommend restoring previous code language that included a 50-foot buffer for natural ponds and lakes under 20 acres in size and no buffer for artificial ponds.</p>	<p>The amendment to create Type O water is proposed so as to align Ch. 16.16 with the County's Manure and Agricultural Nutrient Management regulations (WCC Ch. 16.28), which prohibit "the spreading of manure within 50 feet of drainage ditches leading to rivers and streams."</p> <p>This is the code that our Pollution Identification and Correction (PIC) program uses to curtail the introduction of agricultural runoff into our waterways, thereby protecting our shellfish resources. Creating a Type O water with a 25-foot buffer was suggested by our PIC managers, the Whatcom Conservation District, the Department of Agriculture, and other partner agencies so that there's a buffer between where manure might be spread and our waterways. It was determined that 25-feet</p>

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						would be adequate for this function. Were we to revert to the existing code, then such waterways/ditches might be considered one of the other types with a larger buffer.
MES41	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.745(A)	Regarding Buffer Width Increasing, strike the new added section 16.16.745(A)(2), allowing the Director to increase HCA buffers under certain conditions. This is a new provision to the code that allows the Director to extend Type S or F buffers to resources within 300 feet – including Category III wetlands, other HCA's or other waters. Again, this is an exceptionally broad provision to add in additional regulated areas that are not currently designated as critical areas or buffers in the existing or even the proposed amended code. The extension of every fish stream or lake buffer to another resource within 300 feet is essentially extending most of the buffer areas to 300 feet.	The existing code already allows the Director to increase buffer widths, but with less guidance, which consultants are usually clamoring for. Thus, we "borrowed" language from Skagit County, which provides better detail on when the Director can do so. We don't see how this would result in a double counting towards buffer requirements
MES42	Ed Miller, Miller Environmental Services	2/19/21	F	16.16.760(B)(8)	Regarding HCA Buffer Mitigation Ratios, maintain the existing language and strike the proposed language that requires a higher ratio of mitigation when it's done after the impact occurs. Generally, applicants do not conduct mitigation activities prior to permit approval, and generally go to construction as soon as permits are issued. Additionally, mitigation planting is often tied to the planting season – which is preferably fall through spring to increase survivability. This added code language would appear to add a year to applicants' timeline or penalize them with up to 25% more buffer mitigation. Additionally, no net loss of buffer function already required under 16.16.760.	This proposed requirement comes from DOE guidance to account for temporal loss.
LNTHPO02	Tamela Smart, Lummi Nation Tribal Historic Preservation Office	3/1/21	D	23.30.060(A)(2)	A Cultural Resources <u>survey and</u> report. The current language does not include the word survey.	"Survey and" has been added to this section.
LNTHPO02	Tamela Smart, Lummi Nation Tribal Historic Preservation Office	3/1/21	D	23.30.060(A)(3)	The LNTHPO would like to be consulted whether or not cultural resources were encountered during the survey.	This section directs the County to provide the cultural resource report to DAHP—and if Native American cultural resources are addressed—to the Tribes. Staff isn't sure why such reports would need to be

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						provided to the LNTHPO if N.A. resources aren't involved. Nonetheless your comment will be provided to the P/C and Co/C.
LNTHPO02	Tamela Smart, Lummi Nation Tribal Historic Preservation Office	3/1/21	D	23.30.060(A)(5)	<p>The LNTHPO recommends that the permit also be conditioned based on the County's consultation with the affected tribes and the Department of Archaeology and Historic Preservation.</p> <p>If no cultural resources are encountered and the consulting parties concur with the findings, the Whatcom County Inadvertent Discovery Plan for cultural resources should be on-site and followed if cultural resources or human remains are encountered.</p>	<p>This section states that "any permit issued shall be conditioned on meeting the approved report's management recommendations." Given that the report, including the management recommendations, would be approved by DAHP and the Tribe(s) through consultation, then this would already be the case.</p> <p>And subsection (6) already states that any activities would still subject to the state and federal regulations regarding inadvertent discoveries regardless of whether any cultural resources are identified or not, so this, too, would already be the case.</p>
LNTHPO02	Tamela Smart, Lummi Nation Tribal Historic Preservation Office	3/1/21	D	23.30.060(A)(6)	The LNTHPO recommends that this point be made broader to state that any activities are still subject to state and federal laws and regulations regarding cultural resources and human remains.	Regardless of whether we state that any activities are still subject to the state and federal regulations, it would still be the case. Nonetheless, we have broadened the language as suggested.
RFW12	Karlee Deatherage (RE Sources), Danielle Shaw (WEC), and Tim Trohovich (Futurewise)	3/4/21	F	16.16.270	Restore Reasonable Use language in Dec 4, 2020 draft. We urge the Commission to revisit their proposed change to expand the maximum impact area for single-family residences to be no larger than 2,500 square feet in 16.16.270.C.12. The purpose of the reasonable use provision is to allow only the minimal "reasonable" use of property to avoid a constitutional taking when fully applying the standards of critical areas regulations. The courts generally decide the concept of reasonable; however, reasonable use is often interpreted as a modest single-family home. A home with a footprint 4,000 square feet is excessive. A median size house built in 2019 has 2,301 square feet of floor area. We can assume that to be less than footprint 1,500 square	Your comment will be provided to the P/C & Co/C for consideration.

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					feet. Additionally, we strongly urge the Commission to maintain the new language in the code for the processing of reasonable use exceptions. We understand this is a departure from the current code which allows administrative approval of reasonable use exceptions; however, the way Whatcom County has been processing this is contrary to the intent of reasonable use. Quasi-Judicial bodies like the Hearing Examiner should be making the final call as opposed to staff. All feasible measures to derive use of the property must also be exhausted, which includes pursuing a variance. This mirrors language used in both Skagit County and Snohomish County.	
RFW13	Karlee Deatherage (RE Sources), Danielle Shaw (WEC), and Tim Trohovich (Futurewise)	3/4/21	F	16.16.640(A)(5) and 16.16.745(A)(2)	Regarding Buffer Width Increasing, maintain staff proposed changes. The Commission received a suggestion from Miller Environmental Services, Inc. requesting this section to be removed. We disagree. The wetland rating form is not a part of the CAO and this language should be kept in code. Also, this decision could be made by the Director on a case by case basis to increase the size of the required buffer in specific instances. Striking this from the code could deprive the Director of an important tool to better protect the few remaining areas in the county that are vital for wildlife and water quality functions of wetlands and streams. The Department of Ecology's wetland guidance recommends this as an important tool as well: "Ecology's buffer recommendations are also based on the assumption that the buffer is well vegetated with native species appropriate to the ecoregion. If the buffer does not consist of vegetation adequate to provide the necessary protection, then either the buffer area should be planted or the buffer width should be increased."	Your comment will be provided to the P/C & Co/C for consideration.
RFW14	Karlee Deatherage (RE Sources), Danielle Shaw (WEC), and Tim Trohovich (Futurewise)	3/4/21	F	16.16.640(C)(1)(e)(iii)	Regarding Buffer Width Reduction, maintain staff proposed changes. This change proposed by staff allows the Director to provide flexibility in making buffer reductions while still managing and protecting landscape-scale functions and values. We could see how this could benefit a parcel if buffer reduction is occurring in an area with older stands of native trees and there	Your comment will be provided to the P/C & Co/C for consideration.

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					are other trees of similar age onsite that could be preserved and protected from unnecessary clearing. Mature trees serve critical habitat, stormwater control, and water quality functions even if they are not part of a formal buffer for a critical area.	
RFW15	Karlee Deatherage (RE Sources), Danielle Shaw (WEC), and Tim Trohovich (Futurewise)	3/4/21	F	16.16.710(C)(1)(a)(v) and 16.16.740(B)	Regarding Type O Waters and buffer, maintain staff proposed changes. Miller Environmental Services, Inc. proposes to delete the definition and buffer requirements for Type O waters which connect directly to either waters of the state (Type S waters) or fish habitat (Type F waters) via channel, pipe, culvert, stream, or wetland. We support the staff's proposal to include this because all waters are connected and we must be providing some level of protection from a water quality perspective. Ongoing Agriculture is exempt from this requirement.	Your comment will be provided to the P/C & Co/C for consideration.
RFW16	Karlee Deatherage (RE Sources), Danielle Shaw (WEC), and Tim Trohovich (Futurewise)	3/4/21	F	16.16.745(A)	Regarding Buffer Width Increasing, maintain staff proposed changes. Having the ability to increase fish and wildlife habitat conservation area buffers is crucial to lend more protection to areas that serve multiple ecosystem functions. This change may only apply to shorelines of the state (Type S waters), fish-bearing waters (Type F waters), or high value wetlands (Category I, II, or III). Again, this is a discretionary decision from the Director which means it may not always happen.	Your comment will be provided to the P/C & Co/C for consideration.
MES43	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.270 & 16.16.273	These sections are a complete rewrite of reasonable use procedures and would require a variance (minor and major variance) before reasonable use would apply. Current Code: Reasonable use provisions are currently considered prior to a variance application. A variance application is time-consuming, more expensive, and requires review/approval by the hearing examiner with a public hearing. Per 16.16.270.C.1 only reasonable use exceptions for single-family residential building or for other development proposals that would affect only buffers, but not critical areas themselves (e.g., wetlands and streams), shall be processed administratively. Other applications that directly impact critical areas, with the	Our Hearing Examiner has questioned our current schema, in particular why he isn't the final decision maker, as the current code allows an administrative determination to be made after a quasi-judicial decision, and in the hierarchy of permitting, applicants should have to exhaust any administrative remedies before seeking a quasi-judicial decision. Staff is proposing that reasonable use exceptions be the last method of altering standards to allow reasonable economic use of constrained property, and that they be decid-

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					<p>exception of single-family residential, currently have to apply for a variance application. If an applicant currently wants to propose a larger footprint than the allowed 4,000 square feet under reasonable use, they could also apply for a variance.</p> <p><i>Suggested Change:</i> Strike the proposed changes to reasonable use and variance procedures. Return to the current language. Also, add bolded language to section 16.16.270.j. The project includes mitigation for unavoidable critical area and buffer impacts in accordance with the mitigation requirements of this chapter – or if the mitigation requirements cannot be met, to the maximum extent feasible on the property.</p> <p><i>Rational for suggested change:</i> The proposed change is a significant alteration to the code and process. A significant number of previously designated reasonable use projects, processed administratively, would need to go to the hearing examiner. This will significantly increase costs and time to applicants for simple single-family construction or projects with only buffer impacts – as the current code requires an open public hearing for anything more complex. This will also create more uncertainty as to what will be allowed when a property is encumbered with critical areas and buffers. It should also be remembered, that reasonable use scenarios have increased significantly over the last four years as the result of larger buffers occurring on properties since 2017 – the result of utilization of updated Ecology wetland rating forms and guidance. Generally, critical areas, primarily wetlands, have not changed but buffers have become significantly larger.</p> <p>The change to section j is included so that applicants aren't required to purchase another property for mitigation – which has been required in some cases, precluding any development at all (even for buffer impacts).</p>	<p>ed upon by the Hearing Examiner (see 16.16.270 Reasonable Use Exceptions).</p> <p>In this schema, the degree to which one can vary standards while providing the least amount of mitigation moves up a level at each step, with the Hearing Examiner making the tougher decisions through a quasi-judicial process. This would return the reasonable use exception to truly the last effort of avoiding a taking.</p> <p>However, to counter the additional time and cost of this process, staff is also proposing to create a new category of variances, called minor variances (16.16.273 Variances). They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number of cases having to go to the Hearing Examiner and cost less to the citizens of Whatcom County overall.</p>
MES44	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.620(D) & 16.16.720(D)	<p><i>Draft Code:</i> Private Access. Access to <u>existing legal lots</u> may be permitted to cross Category II, III or IV wetlands or their buffers, provided the access meets the following... And. Private Access. Access to existing legal lots may be permitted to cross habitat</p>	<p>This formerly proposed language has already been stricken and reverted to the original language in the more recent ver-</p>

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					<p>conservation areas if there are no feasible alternative alignments.</p> <p><i>Current Code:</i> <u>Access to private development sites</u> may be permitted to cross Category II, III or IV wetlands or their buffers, provided...</p> <p><i>Suggested Change:</i> Strike the change and keep the current language, both wetland and HCA sections.</p> <p><i>Rationale for suggested change:</i> This section as modified implies that no new lots could be created (subdivided) if a road would be needed to cross through a wetland or buffer or habitat conservation areas. Access to large areas of unencumbered property could be restricted if one small wetland or its buffer would need to be impacted to access a development area. For example, creating new lots in unencumbered areas (no critical areas) per the underlying zoning might not be allowed on a 40 acre property if the crossing of a non-fish stream or the outer portion of a buffer was required.</p>	sions of Exhibit F (4/5/21)
MES45	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.640(A)(5)	<p><i>Draft Code:</i> Buffer Width Increasing: The Director may require the standard buffer width to be increased by the distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas for one of the following:</p> <p><u>(5) When a Category I or II wetland is located within 300 feet of:</u></p> <ul style="list-style-type: none"> a. <u>Another Category I, II or III wetland; or</u> b. <u>A fish and wildlife HCA; or</u> c. <u>A type S or F stream; or</u> d. <u>A high impact land use that is likely to have additional impacts.</u> <p><i>Suggested Change:</i> Strike the new, added section (5).</p> <p><i>Rationale for suggested change:</i> This added provision, not in the current code, allows staff to extend any Category II wetland buffers out to 300 feet – if another wetland or HCA is within 300 feet. HCA's include mature forest, priority snags (logs on the ground, 20 feet long, 12 inches wide), streams, etc.</p> <p>The intent of this appears to be to increase buffers if adjacent</p>	Staff believes this addition better reflects DOE guidance and Council's direction to improve connectivity.

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					critical areas are present. However, this is already accounted for in the wetland rating form. The habitat score, which drives the buffer width, is scored higher if habitat conservation areas are within 330 feet. The proposed draft change seems redundant when these factors are already utilized in determining the buffers in the current code - based on the wetland rating form. If the intent is also to protect habitat corridors, then it is also redundant, as these are already protected in the habitat conservation section of the code – State priority habitat “Biodiversity areas and corridors”.	
MES46	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.640(B)(2) & 16.16.745(B)(2)	<p><u>Draft code. Buffer Width Averaging: In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.</u></p> <p><i>Suggested Change:</i> Strike the proposed change.</p> <p><i>Rationale for Suggested Change:</i> This section effectively eliminates the intent of buffer averaging and converts it to buffer reduction by requiring mitigation in the form of added plantings. Buffer averaging is an important and simple way to allow more flexibility for property owners that need to make minor buffer adjustments. This section will also reduce consistency and predictability (each staff member could apply this differently), and will increase the cost for simple projects by requiring plantings, monitoring, bonding, etc. by thousands of dollars. Additionally, the Director already has the ability to require plantings in a wetland or HCA buffer where it lacks adequate vegetation under 16.16.630.D or 16.740.B.1, making this code addition redundant.</p>	This formerly proposed language has already been stricken and reverted to the original language in the most recent version of Exhibit F (4/5/21)
MES47	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.640(C)(1)(c)	<p><u>Buffer Width Reduction draft code: The buffer shall not be reduced to less than 75% of the standard buffer.</u></p> <p><i>Current Code:</i> Allows for a Category IV wetland buffer to be reduced by up to 50% or 25 feet, whichever is greater.</p> <p><i>Suggested Change:</i> Restore prior language to allow for up to 50% reduction (or 25 feet) for Category IV wetlands.</p>	Staff believes this amendment better reflects DOE guidance.

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					<i>Rationale for Suggested Change:</i> The existing code section allows for up to a 50% (or minimum of 25 feet) reduction of a Category IV wetland buffer, while higher category wetlands are restricted to a 25% reduction. Under the draft buffer averaging section, Category IV wetlands are still allowed up to a 50% reduction. This proposed change will remove flexibility for property owners for the lowest category of wetlands.	
MES48	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.710(C)(1)(a)(v) & 16.16.740(B)	<p><i>Draft Code:</i> Type O waters include all segments of aquatic areas that are not type S, F, or N waters and that are physically connected to type S or F waters by an above-ground channel, system, pipe, culvert, stream or wetland. And 16.16.740.B. Type O Buffer = 25 feet.</p> <p><i>Current Code:</i> Not present in the current code.</p> <p><i>Suggested Change:</i> Strike this addition of Type O waters and associated 25-foot buffer. Return the prior designation of Natural Ponds to the buffer Table requiring a 50 foot buffer.</p> <p><i>Rationale for Suggested Change:</i> The definition of Type O waters will include ditches and artificial ponds that eventually drain to a fish stream. This will include most of the ditching and artificial ponds in Whatcom County. This will in effect place 25-foot buffers in any front yard along a road with a County ditch – creating protected critical areas buffers along most property road frontage. Any time the County public works excavated new ditching, or extended existing new ditching, they would also be creating new critical areas and encumbering adjacent properties with a buffer for a resource that the County created. This seems problematic and overreaching. Ditching provides a function to control and direct stormwater. The department of Ecology has no recommendations designating artificial ditches as critical areas or for placing buffers on artificial ditching. This would create a new critical area, most of which are within County rights-of-way. Additionally, most of the ditches outside of road right of ways are agricultural in nature and created prior to the growth management act and the clean water act. Additionally, Type O waters do not correlate with Washington State water typing.</p>	This formerly proposed language has already been stricken and amended in the most recent version of Exhibit F (4/5/21)

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MES49	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.710(C)(b)(i)	<p><i>Draft Code:</i> Ditches or other artificial water courses are considered streams for the purposes of this chapter when: i. used to convey <u>waters of the state</u> existing prior to human alteration; and/or...</p> <p><i>Current Code:</i> Ditches or other artificial water courses are considered streams for the purposes of this chapter when: i. used to convey <u>natural streams</u> existing prior to human alteration; and/or...</p> <p><i>Suggested Change:</i> Strike the change and replace the current language.</p> <p><i>Rationale for suggested change:</i> This change seems to make the section more confusing. State definitions (italics added):</p> <p>"Waters of the state includes all lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses located within the jurisdiction of the state of Washington (RCW 90.48.020)."</p> <p>"WAC 220-660-030(153) Watercourse, river or stream means any portion of a stream or river channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state. Watercourse also means areas in which fish may spawn, reside, or pass, and tributary waters with defined bed or banks that influence the quality of habitat downstream. Watercourse also means waters that flow intermittently or that fluctuate in level during the year, and the term applies to the entire bed of such waters whether or not the water is at peak level. A watercourse includes all surface-water-connected wetlands that provide or maintain habitat that supports fish life. This definition does not include irrigation ditches, canals, stormwater treatment and conveyance systems, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans."</p> <p>Per state definition, waters of the state (that might be found in a ditch) have an ordinary high water mark and are not artificial – essentially a "natural stream". It seems the current language is</p>	Based on public comment and direction from the P/C, staff has rewritten this section to be clearer and allow lesser buffers on modified waterways that are not regulated by WDFW. See 16.16.710(C) & (D)(2) in the most recent version of Exhibit F (4/5/21).

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					consistent with state definitions and is clearer.	
MES50	Ed Miller, Miller Environmental Services	4/12/21	F	16.16.745(A)(2)	<p><i>Draft Code:</i> Buffer Width Increasing. The Director may require the standard buffer width to be increased or to establish a non-riparian buffer, when such buffers are necessary for one of the following:</p> <ol style="list-style-type: none"> 1) To protect priority fish or wildlife using the HCA 2) <u>To provide connectivity when a Type S or F water body is located within 300 feet of:</u> <ol style="list-style-type: none"> a. <u>Another Type S or F water body; or</u> b. <u>A fish and wildlife HCA; or</u> c. <u>A Category I, II or III wetland.</u> <p><i>Current Code:</i> 16.16.745.A.2 - language added, not in the current code.</p> <p><i>Suggested Changed:</i> strike the new added section 16.16.745.A.2.</p> <p><i>Rationale for suggested change:</i> This is a new provision to the code that allows the Director to extend Type S or F buffers to resources within 300 feet – including Category III wetlands, other HCA's or other waters. Again, this is an exceptionally broad provision to add in additional regulated areas that are not currently designated as critical areas or buffers in the existing or even the proposed amended code. The extension of every fish stream or lake buffer to another resource within 300 feet is essentially extending most of the buffer areas to 300 feet. If the intent is also to protect habitat corridors, then it is also redundant, as these are already protected in the habitat conservation section of the code – State priority habitat "Biodiversity areas and corridors".</p>	Staff believes this addition better reflects DOE guidance and Council's direction to improve connectivity.
RFW17	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21	D		<p>Incorporate regulations to prepare for accelerating sea level rise impacts.</p> <p>The SMA and SMP Guidelines require shoreline master programs to address the flooding that will be caused by sea level rise. RCW 90.58.100(2)(h) requires that shoreline master programs "shall include" "[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages ..." WAC 173-26-221(3)(b) provides in part that "[o]ver</p>	There isn't a requirement to address climate change/sea level rise in the SMA, though we could if Council desires. However, what we understand from the DOE is that any such regulations should be built on data, which is what PS-CoSMoS will be providing. Furthermore, once the data is available, we should perform vul-

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					<p>the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas ... " "Counties and cities should consider the following when designating and classifying frequently flooded areas ... [t]he potential effects of tsunamis, high tides with strong winds, sea level rise, and extreme weather events, including those potentially resulting from global climate change" The areas subject to sea level rise are flood prone areas just the same as areas along bays, rivers, or streams that are within the 100-year flood plain. RCW 90.58.100(1) and WAC 173-26-201(2)(a) also require "that the 'most current, accurate, and complete scientific and technical information' and 'management recommendations' [shall to the extent feasible] form the basis of SMP provisions." This includes the current science on sea level rise.</p> <p>Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. In 2012 the National Research Council concluded that global sea level had risen by about seven inches in the 20th Century. A recent analysis of sea-level measurements for tide-gage stations, including the Seattle, Washington tide-gauge, shows that sea level rise is accelerating.⁵ Virginia Institute of Marine Science (VIMS) "emeritus professor John Boon, says 'The year-to-year trends are becoming very informative. The 2020 report cards continue a clear trend toward acceleration in rates of sea-level rise at 27 of our 28 tide-gauge stations along the continental U.S. coastline.'" "Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns," says Boon." The Seattle tide gage was one of the 27 that had an accelerating rate of sea level rise. The report Projected Sea Level Rise for Washington State – A 2018 Assessment projects that for a low greenhouse gas emission scenario there is a 50 percent probability that sea level rise will reach or exceed 1.2 feet by 2100 around Sandy Point and the west side of the Lummi Peninsula. Projected Sea Level Rise for Washington State – A 2018 Assessment projects that for a higher emission scenario there is a 50 percent probability that sea level rise will reach or exceed 4.5 feet by 2100 for the same area. Projections are</p>	<p>nerability and risk assessments to see what kind and where the problems might be, and update our shoreline inventory and characterizations. Without such science, we would be open to challenges.</p>

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					<p>available for all of the marine shorelines in Whatcom County and Washington State.</p> <p>The extent of the sea level rise currently projected for Whatcom County can be seen on the NOAA Office for Coastal Management Digitalcoast Sea Level Rise Viewer available at: https://coast.noaa.gov/digitalcoast/tools/slr.html. Please see map images at the bottom of this letter detailing the changes in water elevation from the current mean higher high water (MHHW) to four feet of sea level rise.</p> <p>Projected sea level rise will substantially increase flooding. As Ecology writes, “[s]ea level rise and storm surge[s] will increase the frequency and severity of flooding, erosion, and seawater intrusion—thus increasing risks to vulnerable communities, infrastructure, and coastal ecosystems.” Not only our marine shorelines will be impacted, as Ecology writes “[m]ore frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life.”</p> <p>Zillow recently estimated that 31,235 homes in Washington State may be underwater by 2100, 1.32 percent of the state's total housing stock. The value of the submerged homes is an estimated \$13.7 billion. Zillow wrote:</p> <p>“It’s important to note that 2100 is a long way off, and it’s certainly possible that communities [may] take steps to mitigate these risks. Then again, given the enduring popularity of living near the sea despite its many dangers and drawbacks, it may be that even more homes will be located closer to the water in a century’s time, and these estimates could turn out to be very conservative. Either way, left unchecked, it is clear the threats posed by climate change and rising sea levels have the potential to destroy housing values on an enormous scale.”</p> <p>Sea level rise will have an impact beyond rising seas, floods, and storm surges. The National Research Council wrote that:</p> <p>“Rising sea levels and increasing wave heights will exacerbate coastal erosion and shoreline retreat in all geomorphic environ-</p>	

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					<p>ments along the west coast. Projections of future cliff and bluff retreat are limited by sparse data in Oregon and Washington and by a high degree of geomorphic variability along the coast. Projections using only historic rates of cliff erosion predict 10–30 meters [33 to 98 feet] or more of retreat along the west coast by 2100. An increase in the rate of sea-level rise combined with larger waves could significantly increase these rates. Future retreat of beaches will depend on the rate of sea-level rise and, to a lesser extent, the amount of sediment input and loss.”</p> <p>These impacts are why the Washington State Department of Ecology recommends “[l]imiting new development in highly vulnerable areas.”</p> <p>Unless wetlands and shoreline vegetation can migrate landward, their area and ecological functions will decline. If development regulations are not updated to address the need for vegetation to migrate landward in feasible locations, wetlands and shoreline vegetation will decline. This loss of shoreline vegetation will harm the environment. It will also deprive marine shorelines of the vegetation that protects property from erosion and storm damage by modifying soils and accreting sediment. WEC and Futurewise’s Sept. 16, 2020 letter included maps that show the extent of this amount of sea level rise in Whatcom County and wetland migration in part of the County if the wetlands are not blocked by development. Additional maps are also enclosed with this letter.</p> <p>Flood plain regulations are not enough to address sea level rise for three reasons. Projected Sea Level Rise for Washington State – A 2018 Assessment explains two of them:</p> <p>“Finally, it is worth emphasizing that sea level rise projections are different from Federal Emergency Management Agency (FEMA) flood insurance studies, because (1) FEMA studies only consider past events, and (2) flood insurance studies only consider the 100-year event, whereas sea level rise affects coastal water elevations at all times.”</p>	

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					<p>The third reason is that floodplain regulations allow fills and pilings to elevate structures and also allow commercial buildings to be flood proofed in certain areas. While this affords some protection to the structure, it does not protect the marshes and wetlands that need to migrate.</p> <p>Because of these significant impacts on people, property, and the environment, "[n]early six in ten Americans supported prohibiting development in flood-prone areas (57%)." It is time for Washington state and local governments to follow the lead of the American people and adopt policies and regulations to protect people, property, and the environment from sea level rise. We recommend the addition of the following regulations as part of the shoreline master program periodic update:</p> <p>X. New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</p> <p>X2. Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.</p> <p>X3. New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.</p>	
RFW18	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21	F	16.16.270	<p>Restore Reasonable Use impact area language in the Dec 4, 2020 draft Exhibit F, WCC 16.16.270 Reasonable Use Exceptions.</p> <p>We urge Whatcom County to restore the proposed change from the P/C to expand the maximum impact area for single-family residences from 4,000 square feet to 2,500 square feet in 16.16.270.C.12. The purpose of the reasonable use provision is to allow only the minimal "reasonable" use of property to avoid a constitutional taking when fully applying the standards of critical</p>	Your comment will be provided to the P/C & Co/C for consideration.

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					<p>areas regulations.</p> <p>The courts generally decide the concept of reasonable; however, reasonable use is often interpreted as a modest single-family home. A home with a footprint of 4,000 square feet is excessive. A median size house built in 2019 has 2,301 square feet of floor area. We can assume that to be less than footprint 1,500 square feet.</p>	
RFW19	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21	F	16.16.730 , Table 4	<p>Incorporate the State of Washington Department of Fish & Wildlife's new riparian buffers guidance.</p> <p>As has been reported in media and scientific reports, the southern resident orcas, or killer whales, are threatened by (1) an inadequate availability of prey, the Chinook salmon, "(2) legacy and new toxic contaminants, and (3) disturbance from noise and vessel traffic." "Recent scientific studies indicate that reduced Chinook salmon runs undermine the potential for the southern resident population to successfully reproduce and recover." The shoreline master program update is an opportunity to take steps to help recover the southern resident orcas, the Chinook salmon, and the species and habitats on which they depend.</p> <p>The SMP Guidelines, in WAC 173-26-221(3)(c), provides in part that "[i]n establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201 (2)(a). At a minimum, local governments should consult shoreline management assistance materials provided by the department and Management Recommendations for Washington's Priority Habitats, prepared by the Washington state department of fish and wildlife where applicable."</p> <p>The State of Washington Department of Fish and Wildlife has recently updated the Priority Habitat and Species recommendations for riparian areas. The updated management recommendations document that fish and wildlife depend on protecting riparian vegetation and the functions this vegetation performs such as maintaining a complex food web that supports salmon and maintaining temperature regimes to name just a few of the</p>	<p>Pursuant to 23.230.010(B)(4) floodways and contiguous floodplain areas landward two hundred feet from such floodways are within the shoreline jurisdiction.</p> <p>And pursuant to 16.16.730 Table 4, Type S – Freshwater HCAs are proposed to have a 200-foot buffer based on National Wildlife Federation v. FEMA (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472)</p>

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					<p>functions.</p> <p>The updated Riparian Ecosystems, Volume 1: Science synthesis and management implications scientific report concludes that the "[p]rotection and restoration of riparian ecosystems continues to be critically important because: a) they are disproportionately important, relative to area, for aquatic species, e.g., salmon, and terrestrial wildlife, b) they provide ecosystem services such as water purification and fisheries (Naiman and Bilby 2001; NRC 2002; Richardson et al. 2012), and c) by interacting with watershed-scale processes, they contribute to the creation and maintenance of aquatic habitats." The report states that "[t]he width of the riparian ecosystem is estimated by one 200-year site-potential tree height (SPTH) measured from the edge of the active channel or active floodplain. Protecting functions within at least one 200-year SPTH is a scientifically supported approach if the goal is to protect and maintain full function of the riparian ecosystem." These recommendations are explained further in Riparian Ecosystems, Volume 2: Management Recommendations A Priority Habitats and Species Document of The Washington Department of Fish and Wildlife.</p> <p>Based on these new scientific documents, we recommend that shoreline jurisdiction should include the 100-year floodplain and that the buffers for rivers and streams in shoreline jurisdiction be increased to use the newly recommended 200-year SPTH and that this width should be measured from the edge of the channel, channel migration zone, or active floodplain whichever is wider. New development, except water dependent uses should not be allowed within this area. This will help maintain shoreline functions and Chinook habitat.</p>	
TSF01	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.010	Table 1 of the draft proposes to revise the shoreline use table to prohibit general aquaculture (aquaculture other than commercial geoduck and salmon net pen facilities) in aquatic areas adjacent to the Natural shoreline environment designation (SED). This proposed revision should not be adopted. No scientific or technical information is identified in the Draft Amendment that would support this revision. As recognized by the GMHB, prohibiting	The purpose of the natural shoreline area is to "ensure long-term preservation of ecologically intact shorelines" and "preservation of the area's ecological functions, natural features and overall character must receive priority over any other potential use." The Natural SED is

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					aquaculture in the Natural SED absent such support is impermissible. Allowing aquaculture in the Natural SED is consistent with the purpose and policies of the Natural SED.	only applied in a few areas of the county, primarily the headwaters of the 3 upper Nooksack branches and around state or locally controlled nature preserves. None of these areas would likely be used for aquaculture.
TSF02	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(A)(1)	<p>Strike A.1. Aquaculture that involves little or no substrate modification shall be given preference over those that involve substantial modification. The applicant/proponent shall demonstrate that the degree of proposed substrate modification is degree of proposed substrate modification is aquaculture operations at the site.</p> <p>The first sentence of this provision is unsuitable for a regulation, as it merely expresses a preference for certain activities over others. Moreover, it is inadequately defined and unsupported by scientific and technical information. To the extent that it would disfavor common shellfish aquaculture practices that have been proven to have insignificant impacts on species and habitat (e.g., those covered by the Programmatic Consultation or analyzed by Washington Sea Grant), it runs directly counter to such information in violation of the SMA and Guidelines. It would also fail to give preference to and foster shellfish aquaculture contrary to state law.</p> <p>The second sentence appears to impose a substantive requirement that any substrate modifications must be the minimum necessary for feasible operations. This restriction is similarly unsupported by scientific and technical information and fails to give preference to and foster shellfish aquaculture. In an analogous context, the GMHB held that an aquaculture regulation requiring gear use be limited to the minimum necessary for feasible operations violated state law and must be stricken.</p>	<p>Though the language is existing, the commenter may be correct regarding the 1st sentence, as it does read more like a policy rather than a regulation. And Policy 11CC-3 basically says the same thing, so that 1st sentence could be deleted (though it wouldn't have much effect on the regulation).</p> <p>Regarding the 2nd sentence (again, existing language), staff sees no legal issue in requiring methods used minimize impacts to shoreline functions. The regulation only states that the applicant demonstrate that the degree of proposed substrate modification is the minimum necessary. We would think that Taylor Shellfish Farms already uses the least impactful methods given how environmentally friendly they purport to be. Nonetheless, your comments will be provided to the P/C and Co/C for their consideration.</p>
TSF03	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(A)(2)	<p>Strike A.2 The installation of submerged structures, intertidal structures, and floating structures shall be allowed only when the applicant/proponent demonstrates that no alternative method of operation is feasible.</p>	Again, existing language, and it's only asking that the applicant demonstrate that any proposed structures be the least impactful to shoreline functions. Nonetheless,

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					Similar to the previous provision, this provision is not only unsupported by scientific and technical information, but such information demonstrates aquaculture structures do not have unacceptable impacts. This provision imposes unjustifiable use restrictions and fails to give preference to and foster aquaculture, and hence it should be deleted.	less, your comments will be provided to the P/C and Co/C for their consideration.
TSF04	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(A)(3)	<p>Strike A.3 Aquaculture proposals that involve substantial substrate modification or sedimentation through dredging, trenching, digging, mechanical clam harvesting, or other similar mechanisms, shall not be permitted in areas where the proposal would adversely impact critical saltwater habitat, or other fish and wildlife habitat conservation areas.</p> <p>This provision is insufficient in scope and detail to ensure proper implementation, as several key terms are undefined. Moreover, this regulation appears to articulate a zero-impact standard inconsistent with the SMA and the Guidelines, which acknowledge that activities will have some impacts and calls for those impacts to be minimized. This provision is particularly inappropriate given commercial shellfish beds are themselves critical saltwater habitat.</p>	Staff disagrees with the commenters conclusions. The key words are either defined or their common usage is understood, and the regulation does not articulate a zero-impact standard: It only limits certain types of practices that might have significant impacts on critical saltwater habitats.
TSF05	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(B)(9)	<p>"Where aquaculture activities are authorized to use public County facilities, such as boat launches or docks, the County shall reserve the right to require the applicant/proponent to pay a portion of the cost of maintenance and any required improvements commensurate with the use of such facilities."</p> <p>This revision provides important clarification that the authority to require a project proponent pay a portion of maintenance costs and required improvements applies to County, rather than any public (e.g., state or federal), facilities. Use and maintenance of non-County public facilities are properly addressed by the entities or agencies that own or control those facilities.</p>	Staff agrees with the commenter and has made this suggested edit.
TSF06	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(F)(1)	In addition to the minimum application requirements specified in WCC Title 22 (Land Use and Development), applications for aquaculture use or development shall include all information necessary to conduct a thorough evaluation of the proposed aquaculture activity, including but not limited to the following, if	Staff agrees with the commenter, but none of the language prohibits the applicant from submitting materials used in or produced by other permitting processes. Regardless of whether another agency

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					<p><u>not already provided in other local, state, or federal permit applications or equivalent reports:</u></p> <p>Aquaculture operations are subject to numerous laws and regulatory programs. Applicants for new aquaculture projects must obtain several federal and state approvals in addition to shoreline permits. The County should allow aquaculture applicants to utilize information provided in other local, state, or federal permit applications or equivalent reports in order to satisfy shoreline permit application requirements. This allowance will not hinder the County's interest in ensuring it has all information necessary to conduct a thorough evaluation of aquaculture proposals, and it is critical to avoid unnecessary burdens on applicants and streamline permitting consistent with the laws and policies discussed above.</p>	has made a decision on a permit, the County is still required to maintain a record of our decision making and would need copies of those materials to come to a rational conclusion.
TSF07	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(F)(2)	<p>Applications for aquaculture activities must demonstrate that the proposed activity will be compatible with surrounding existing and planned uses.</p> <ol style="list-style-type: none"> Aquaculture activities shall comply with all applicable noise, air, and water quality standards. All projects shall be designed, operated and maintained to minimize odor and noise. Aquaculture activities shall be restricted to reasonable hours and/or days of operation when necessary to minimize substantial, adverse impacts from noise, light, and/or glare on nearby residents, other sensitive uses or critical habitat. Aquaculture facilities shall not introduce incompatible visual elements or substantially degrade significantly impact the aesthetic qualities of the shoreline. Aquaculture structures and equipment, except navigation aids, shall be designed, operated and maintained to blend into their surroundings through the use of appropriate colors and materials. <p>Taylor Shellfish, along with other responsible farmers, employ numerous practices to avoid and minimize potential noise and light impacts on other shoreline users. However, to help protect</p>	Staff agrees with the commenter and has amended this section as suggested.

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					<p>the safety of its crews and provide marketable products, shellfish operators frequently need to conduct activities during nights or on weekends when there are low tides. This is recognized in the Guidelines, which state: "Commercial geoduck aquaculture workers oftentimes need to accomplish on-site work during low tides, which may occur at night or on weekends. Local governments must allow work during low tides but may require limits and conditions to reduce impacts, such as noise and lighting, to adjacent existing uses." Restricting operations to certain hours or days may compromise the safety of farm crews and/or render operations infeasible. This requirement in 2.b is incompatible with the SMA and Guidelines, and it should be removed.</p> <p>The requirement in 2.c that aquaculture facilities not introduce incompatible visual elements or substantially degrade the aesthetic qualities of the shoreline is inconsistent with the Guidelines, which instead require that that aquaculture not significantly impact aesthetic qualities. The requirement that aquaculture activities not introduce incompatible visual elements is insufficient in scope and detail to ensure proper implementation. This subsection should be aligned with state law.</p>	
TSF08	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	D	23.40.050(H)(2)	<p>In the Natural shoreline environment, aquaculture activities that do not require structures, facilities, or mechanized harvest practices and that will not result in the alteration of substantially degrade natural systems or features are permitted.</p> <p>The prohibition on structures, facilities, or mechanized harvest in the Natural environment is unsupported by scientific and technical information and is accordingly inconsistent with the SMA and Guidelines. As discussed above, there is extensive scientific and technical information that demonstrates shellfish aquaculture activities, some of which include these proscribed items, have minimal impacts that are consistent with the Natural environment. The revised language shown here remedies these failures and aligns this regulation with the management policies in the Guidelines for the Natural environment.</p>	Staff disagrees with the commenter. The Natural SED is intended to remain natural and is the only SED where such structures are prohibited. It is not a general prohibition, just one for one certain SED. The Natural SED is only applied in a few areas of the county, primarily the headwaters of the 3 upper Nooksack branches and around state or locally controlled nature preserves. None of these areas would likely be used for aquaculture.
BIAWC08	Robert Lee, BIAWC	4/12/21	F	16.16.273	Reasonable Use and Variances: Staff has proposed major changes to the procedures and criteria for both. The current	Please see the responses provided for Comments GCD14, NES02, NWC02,

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					<p>2017 CAO allows PDS staff to grant reasonable use (RU) permits for one single family house under very strict criteria if CAO rules alone would deny "all reasonable and economically viable use" of the property.</p> <p>A. Variances: They now require a public hearing and approval by the Hearing Examiner (HE). The applicant must demonstrate "undue hardship" due to CAO "dimensional requirements". Frankly, it's not clear what the difference is between the scope of these and RU applications in current code.</p> <p>Per draft Section 16.16.270.A, p 30-31, Exh. F, if a person only needs a 25 to 50% CAO buffer reduction, they would apply for a Minor Variance, instead of a RU Exception per current code.</p> <p>The draft does not say whether this value is total area, width, or both. Staff decides these permits; notice to neighbors is required. We do appreciate the new minor variance idea allowing staff approval, but why they also have to provide notice to adjacent land owners?</p> <p>A Major Variance is required for any other CAO exceptions. See Section 16.16.273, p 34. Either level of variance will be a costly process; the fee is \$2750, plus critical area reports, possibly consultants and any legal costs.</p> <p>One could only apply for a Reasonable Use Exception RU if their variance app is denied. This means if you don't get adequate relief with a variance approval, one must repeat the permit process to apply for an RU, and pay double fees and costs. A person may also face an appeal to Superior Court from someone.</p>	<p>NWC05, BIA04, MES11, MES29, MES31, MES43, RFW12, & RFW18.</p> <p>In addition, variances have always required a public hearing and approval by the H/E using the same criteria. We have now introduced a "minor" variance (the creation of which has already been approved by Co/C) for minor buffer reductions. An all variances always require public notice, as we're potentially letting applicants use lesser standards than what the code prescribes, which might have impacts on neighbors.</p> <p>We have also put in a request to have a much lower fee for minor variances.</p>
BIAWC09	Robert Lee, BIAWC	4/12/21	F	16.16.270(C)(12)	<p>B. Reasonable Use Exception (RU)</p> <p>1. Footprint Size:</p> <p>Re draft Sections 270, Item C, p 31, we support the increase in the allowed "impact area" for a house via the RU process to 4,000 sq. ft., from 2,500, recently accepted by the P/C. This limit is a minimally reasonable value when you consider most of the</p>	<p>Please see the responses provided for Comments BIA04, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.</p> <p>And remember, RUEs are for lots totally constrained by critical areas. Lots that aren't so constrained can build to what-</p>

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					<p>sites will be 2 acres or larger, and many rural land owners will want barns, corrals, shops, etc.</p> <p>Also, these and all other CAO rules apply in the county's two Urban Growth Areas: Birch Bay and Columbia Valley, where lot sizes are usually much smaller, and on public sewer and water systems.</p> <p>However, "impact area" is not defined in the draft CAO. We suggest this term be defined to include only artificial impervious surfaces. We support the driveway exception as written, and ask that drainfield areas be listed as excepted too.</p> <p>There appears to be no scientific basis for either value. The 4,000 sf value will often be generally reasonable in this context for smaller lots, e.g., 1 to 5 acres. But several large rural areas are zoned 10 acre minimum. We think consideration should be given to a "sliding scale" proposal, for parcels 5 acres and larger, based on zoning, platting options, availability of drinking water, soils for septic, etc.</p> <p>Many rural residents are horse enthusiasts, and want training rings, which will push the total footprint over the 4,000 sf limit.</p>	ever size the code allows for their zone. We would think that someone who wants barns, training rings, and other large structures would choose a lot not so constrained.
BIAWC10	Robert Lee, BIAWC	4/12/21	E	22.05.020	<p>2. RU Process: We believe the RU decision should be made by staff instead of the Hearing Examiner (HE), a far less costly, time consuming and legalistic process.</p> <p>We believe these decisions should be based mainly on a scientific analysis of the particular situation; that is: the functions and values of the resource, and adjacent site character, mainly its natural features: e.g., soils and geology, topography, native vegetation etc.</p> <p>An important question: is there any state law, court decision or code that requires that RU's be decided by the HE, a quasi-judicial official? Or that bars professional and qualified staff from making these mainly technical and science kind of decisions?</p>	Please see the responses provided for Comments GCD14, NES02, NWC02, NWC05, BIA04, MES11, MES29, MES31, MES43, RFW12, & RFW18.
BIAWC11	Robert Lee, BIAWC	4/12/21	F	16.16.270(C)	<p>3. RU Criteria:</p> <p>a. We also have concerns over the fairness of some of the key</p>	The RUE criteria are basically the same as the existing criteria (old (B)(2)), which come from state law and courts cases on

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					<p>words/phrases/values related in the RU code, such as:</p> <p>16.16.270 A, C.2, C.3, etc.: "all reasonable and economically viable use of a property".</p> <p>The words "all" and "viable" seem more arbitrary and subjective than logical and objective. Does staff have a reliable, credible source for this language?</p> <p>The current, 2018, State Department of Commerce guidance on critical areas and this topic states, in part:</p> <p>The reasonable use permit criteria should allow for "reasonable" uses. If the criteria state that the applicant must demonstrate that no other use "is possible," or that there are "no feasible alternatives," it would conflict with the concept of a "reasonable" use as other "possible" alternatives may be so costly as to be unreasonable.</p> <p>Their 3-page excerpt on RU is attached, and a link to the complete report. The Department of Commerce has primary regulatory authority over all GMA elements, including all 5 critical areas.</p> <p>In reviewing the long list of complex criteria, all 12, for approval of a RU application (Section 270.C, almost all of p 31), we note the links in several of "reasonable" with "economics", and use of "all". Why is economics a critical factor here? The test is supposed to be "reasonable".</p> <p>See items C.2, 3, 4 and 5. It appears staff is trying to make it as difficult as possible for a person to obtain a RU exception, and obtain fair relief from the arbitrary buffers per Department of Ecology guidance on wetlands and habitat buffers.</p> <p>We say the buffers are arbitrary because they are not based on a staff accepted scientific assessment of a site's critical area resources and relevant local conditions.</p>	<p>this matter.</p> <p>And if you're going to quote the CAO handbook, might as well quote more of it, for it also says, "Unlike variances, the purpose of a reasonable use exception permit is not to allow general development within critical areas, but to allow only the minimal "reasonable" use of the property so as to avoid a constitutional taking. Four scenarios are provided to illustrate situations where a reasonable use exception might or might not be applicable:</p> <p>A – No reasonable use exception would be granted because there is sufficient space outside the critical area clearing limits.</p> <p>B – A reasonable use exception might be granted since there is insufficient space for a reasonable use. The development area would need to be limited or scaled back in size and located where the impact is minimized. The jurisdiction might consider a variance to the required setback to minimize intrusion into the protection area.</p> <p>C – A reasonable use exception would be granted for a minimal development if the property is completely encumbered and mitigation methods are applied.</p> <p>D – The jurisdiction might consider modifications to the required setback to prevent intrusion into the protection area.</p>

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						<p>The criteria for reasonable use permits need to be consistent with case law to reduce the potential for appeals and overturned decisions. Key to being consistent with case law is careful use of the term "reasonable." Generally, the concept of "reasonable" has been left to the courts to decide, thereby making it difficult for cities to rule on whether or not a project qualifies. A reasonable use is often thought to be a modest single-family home, although some other structure might be "reasonable" depending on zoning, adjacent uses, and the size of the property.</p> <p>Some jurisdictions have allowed a reasonable use exception in only those situations where <i>all</i> economic use of a property would be denied by the critical areas regulations. Criteria that might be used to allow approval of a reasonable use exception include:</p> <ul style="list-style-type: none"> • No other reasonable economic use of the property has less impact on the critical area; • The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property; • The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant after the effective date of this regulation, or its predecessor; • The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the devel-

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						<p>opment proposal site;</p> <ul style="list-style-type: none"> • The proposal will result in no net loss of critical area functions and values consistent with the best available science; or • The proposal is consistent with other applicable regulations and standards."
BIAWC12	Robert Lee, BIAWC	4/12/21	F	Articles 6 and 7	<p>2. Wetland and Habitat Conservation Area Buffers:</p> <p>A. General Comments: Such buffers are usually the most constraining, and thus costly, elements of compliance with local CAOs for landowners and land users. They often end up consuming more usable land than the area of the wetland they are supposed to protect. We have seen many examples of this, large and small.</p> <p>We're familiar with many situations where buffer requirements appear arbitrary and excessive. In one situation, where a qualified private scientist classified a 6 acre area that has been hayed for at least 75 years a Category IV wetland, the lowest value. He used the 2014 DoE Rating form, 17 pages of detailed questions, some a bit subjective. The PDS staff person said he thought it was a Cat. III. This meant the buffer increased from 60 ft. to 110 ft. of hayfield, almost doubling!</p> <p>Per the draft, DoE and staff don't think that's enough. The new Wetland Buffer table, Sec. 630.E, p 67, based on DoE guidance, will require more than a doubling, from 110 to 225 ft., for a Cat. III of any size, whether the parcel is 10,000 sf or 100 acres. We think this is excessive regulation, and it's quite commonplace in the CAO.</p> <p>The County does not have to adopt DoE staff's arbitrary and excessive buffers. They are not based on the WACs. Remember, the state Department of Commerce is the only state agency with rule making authority on GMA obligations, including critical areas. DoE's main authority on wetlands is limited to controlling the filling or alterations of wetlands through the federal Clean</p>	<p>In July 2018 the Washington Department of Ecology (DOE) modified the habitat score ranges and recommended buffer widths in their wetland buffer tables in the DOE guidance, with some minor text changes to ensure consistency. Some citizens, local environmental consulting firms, and <i>the Building Industry Association of Whatcom County</i> then requested that we amend our code to meet this new guidance, and it was docketed as PLN2019-00008.</p> <p>The project was brought before the Planning Commission on March 14, 2019. But there was confusion as to what we actually had to do at that time and what impacts it would have on development. DOE had informed staff that, while we didn't need to amend our code at that point (having just updated Ch. 16.16 (Critical Areas) (Exhibit F) that they would review our code for consistency with their guidance when Ch. 16.16 was opened for amendment again, noting that that would occur during the 2020 SMP Periodic Update.</p> <p>So at the Commission's request, staff worked with the local wetlands consultants to review the issue and try to deter-</p>

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					Water Act.	<p>mine what effects it might have. Three consulting firms provided analyses based on data from projects they had worked on. From these analyses, it appears that many of Whatcom County's lower quality wetlands (e.g., small Category IV wetlands in agricultural fields) would end up with smaller buffers, but that our higher quality wetlands (Categories II and III) would end up with larger buffers. (But even this is speculation, as ATSI noted that the comparison results are not statistically significant.) Thus, farmers may benefit but developers/ builders may suffer, as many of our lower quality wetlands are those found in agriculture fields, while our higher quality wetlands are typically found in non-agriculture rural areas.</p> <p>Nonetheless, given the Department of Ecology's statements that they'll be monitoring the SMP Update to ensure that we meet their latest guidance (which is based on Best Available Science), and given that Comprehensive Plan Policy 10M-2 directs the County to "Develop and adopt criteria to identify and evaluate wetland functions that meet the Best Available Science standard and that are consistent with state and federal guidelines," staff is proposing to amend §16.16.630 (Wetland Buffers) Table 1 (Standard Wetland Buffer Widths) to meet DOE guidance. As indicated, these changes would lessen buffers on lower quality wetlands, and increase them on higher quality ones.</p>

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BIAWC13	Robert Lee, BIAWC	4/12/21	F	Articles 6 and 7	<p>B. Buffer Details in the Draft:</p> <p>We have reviewed the Wetland and Habitat drafts and the detailed comments on them submitted February 19 and 25, 2019, for Jon Maberry by Ed Miller and Liliana Hansen, both Professional Wetland Scientists (PWS). GAC members discussed these issues with Ed recently.</p> <p>We firmly agree with the scope and substance of all 14 comments in their firm's 8-page February 19 letter, including its recommendation to delete 12 of the draft changes/additions (attached). The Miller firm is highly regarded by many BIAWC members for their professional approach to complex environmental issues.</p> <p>We also agree with the reasonable and constructive suggestions in Jon Maberry's Prepared Motions submitted to the Planning Committee February 25, attached.</p> <p>Finally, it appears to us there's a pattern in these and other parts of the draft CAO of making the rules more restrictive and less balanced between the government's legitimate police power authority and the constitutional rights of private land owners and land users.</p>	Your comment will be provided to the P/C and Co/C for consideration.
P6601	David Klanica, Phillips 66	4/12/21	A	10D-11	<p>Policy 10D-11 was added that addresses climate change: "Protect ecological functions and ecosystem-wide processes of Marine Resource Lands and critical areas in anticipation of climate change impacts, including sea level rise."</p> <p>Phillips 66 is requesting further explanation and clarification whether upland property owners who propose bulkheads, armoring, or bank stabilization to prevent shoreline erosion or sloughing due to sea level rise will be subject to new limitations or requirements that could affect the current or future use of their property.</p>	The amendments regarding shoreline stabilization regulations are found in Exhibit D (Title 23). You would want to look at both 23.40.010, Table 1, and 23.40.190.
P6602	David Klanica, Phillips 66	4/12/21	B	Governing Principle (C)(2)	The Shoreline Management Act was adopted in 1971 to protect the shorelines of the state of Washington. Certain shorelines were designated as "shorelines of statewide significance" including those areas of Puget Sound and the Strait of Juan de	As explained in the comment bubble tagged on this change, the word "significant" is proposed for deletion as there is no such threshold under SMA. Under the

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					<p>Fuca and adjacent salt waters north to the Canadian line and lying seaward from the line of extreme low tide. The Act established a system where local governments would ensure that certain developments in shoreline areas would be reviewed and protected. More specifically, these agencies would review "substantial developments" which were those that would have a "significant adverse" impact on the environment including, but not limited to fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values.</p> <p>Whatcom County has proposed in its Governing Principles (GPC2)) that it will include "policies and regulations that require mitigation of adverse impact in a manner that ensures no net loss of shoreline ecological functions." Phillips 66 is concerned about how this revised policy will be implemented as a practical matter. First, it appears to go beyond the County's statutory authority outlined in the SMA. Second, Phillips 66 is concerned that, without further clarification, it may be used inconsistently across the County. For instance, what is meant by "adverse" versus the original "significant adverse"? Must all land use permits affecting the shoreline now indicate what, if any adverse impacts might occur? Phillips 66 requests that the P/C provide more information as to how the removal of the word "significant" will change day-to-day shoreline management activities.</p>	SMA, all adverse impacts must be mitigated in order to help achieve NNL. (The term "significant impact" comes from SEPA.)
P6603	David Klanica, Phillips 66	4/12/21	B	Policies 11G-3 & 11G-4	Regarding Policy 11G-3 and Policy 11G-4 addressing the County's MOU with DAHP and Lummi Nation require the County to consult with DAHP and the Tribes. Phillips 66 is requesting additional clarification for applicant/property owner responsibilities.	Please read 23.30.050 (Cultural Resources) in Exhibit D, as that should provide the additional clarification you seek.
P6604	David Klanica, Phillips 66	4/12/21	B	Overall Goals & Policies	<p>Regarding Overall SMP Goals and Objectives for the Restoration and Enhancement Element were revised as follows: "This element provides for the timely restoration and enhancement of ecologically impaired areas in a manner that achieves a net gain in shoreline ecological functions and processes above baseline conditions as of the adoption of this program."</p> <p>Phillips 66 requests additional clarification and definition for "baseline condition" (e.g. baseline conditions at the time of application?).</p>	<p>The baseline condition was set by the comprehensive update done in 2007. As part of that update the County developed:</p> <ul style="list-style-type: none"> • Vol. 1 - Inventory and Characterization Report • Vol. II - Scientific Literature Review • Vol. III - Restoration Plan • Vol. IV - Cumulative Effects Analysis <p>all of which can be found on our SMP</p>

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						Update webpage .
P6605	David Klanica, Phillips 66	4/12/21	B	Policies 11AA -1 through 11AA-7	Regarding General Policies for Climate Change/Sea Level Rise (Policies 11AA -1 through 11AA-7): please explain/provide detail for shoreline development applicant's responsibilities pertaining to climate change and sea level rise. Will development applications be required to address climate change and sea level rise as part of the SMP application or will there be separate analysis and document requirements (e.g. when will a study addressing sea level rise be required)?	These are only general policies; we are not developing CC/SLR regulations at this time.
P6606	David Klanica, Phillips 66	4/12/21	C	Policy 8T-1	Regarding Policy 8T-1, Phillips 66 requests clarification of the methods by which the County will coordinate with landowners to protect marine resource lands.	Well, we generally do that through email, though sometimes letters, phone calls, or meetings.
P6607	David Klanica, Phillips 66	4/12/21	C	Policy 8U-2	Regarding Policy 8U-2, Phillips 66 requests clarification of the types of non-regulatory programs, options, and incentives that owners of marine resource lands can employ to meet or exceed County environmental goals.	We can't provide you a precise list, as they haven't been developed yet, but they could include tax incentives, educational programs, volunteer groups, etc.
P6608	David Klanica, Phillips 66	4/12/21	C	Policy 8V-2	Regarding Policy 8V-2, Phillips 66 requests clarification of the process by which the County will work cooperatively with local, State, Federal and Tribal agencies, adjacent upland property owners, and the general public, as applicable, to address community concerns and land use conflicts that may affect the productivity of marine resource lands.	How would we work cooperatively? Here are 10 simply ways from entrepreneur.com to cultivate team cohesion: <ul style="list-style-type: none"> • Create a clear and compelling cause • Communicate expectations • Establish team goals • Leverage team-member strengths • Foster cohesion between team members • Encourage innovation • Keep promises and honor requests • Recognize, reward and celebrate collaborative behavior
P6609	David Klanica, Phillips 66	4/12/21	D		The General Provisions of Title 23 indicate that shoreline development must be consistent with the SMA of 1971, the County's shoreline regulations and "other County land use regulations" (See Title 23 draft at lines 11-13). Title 23 then references certain requirements for "existing legal fossil-fuel refinery operations, existing legal transshipment facilities, expansions of these facilities, and new or expansions of renewable fuel refineries or	Yes, staff is well aware of this work and understands that changes have been made to Council's original proposal. However, at the time these documents were 1 st edited, their original proposal was all we had on which to rely, which is why the comment bubbles indicate that

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					<p>transshipment facilities". Related definitions are also provided on page 241 at lines 20-36. Expansions of existing fossil fuel and renewable fuel facilities are required to obtain conditional shoreline permits. (See Title 23, page 137 at lines 3-10).</p> <p>As the Planning Department is aware, industry, labor and environmental organization stakeholders have been working together to develop recommended changes to the County Council's October 2019 proposed Comprehensive Plan amendments. Many of the terms and definitions included in this proposal assume that the 2019 proposed Amendments will be adopted as is. Phillips 66 requests that terms borrowed from the 2019 proposal not be adopted at this time. Considerable progress has been made by the stakeholders and is being presented to the County Council for its consideration in the near future. We request that this proposal be delayed until the final work from the ongoing stakeholder effort is accepted or rejected and the "final" definitions and framework for when conditional use permits is finalized.</p>	we will have to substitute in any changes based on Council's final adoption of the Cherry Point fossil fuel amendments.
P6610	David Klanica, Phillips 66	4/12/21	F		Article 7 Fish and Wildlife Habitat Conservation Area was amended to now include Type O waters. Phillips 66 requests the addition of a definition of Type O waters in the Whatcom County guidance.	This proposal has already been dropped. We suggested you look at the most recent version of Exhibit F, dated 4/5/21.
WH01	Wendy Harris	4/13/21			<p>This is in response to the question that was asked at the last Planning Commission meeting regarding "waters of the state." That is not a term used in the Shoreline Management Act. Rather, it refers to all waters under its jurisdiction as "shorelines of the state" or "shorelands of the state" and these are the appropriate terms to use for waters and exposed land under SMA jurisdiction.</p> <p>Under RCW 90.58.030, "Shorelines" means all of the waters of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty</p>	The commenter is correct, and these are all laid out in 23.20.010 (Shoreline Jurisdiction).

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					<p>ty acres in size and wetlands associated with such small lakes. https://apps.leg.wa.gov/RCW/default.aspx?cite=90.58.030.</p> <p>In other words, only waters with minimum quantifiable measurements (size, type, velocity, etc.) are a regulated state shoreline. This is often forgotten when we hear complaints about over-regulation and unreasonableness.</p> <p>Shorelines of the state are specifically set out in the WAC. In Whatcom County, all rivers and streams that are shorelines of the state are set out in WAC 173-18-410. https://apps.leg.wa.gov/WaC/default.aspx?cite=173-18-410.</p> <p>Lakes are listed in WAC 173-20-760 and 770. https://apps.leg.wa.gov/WaC/default.aspx?cite=173-20-770; https://apps.leg.wa.gov/WaC/default.aspx?cite=173-20-760.</p> <p>There are two kinds of shorelines of the state. The most common shoreline under SMA jurisdiction imposes a no net loss standard of review to prevent any degradation beyond baseline conditions, informed by review of best available science.</p> <p>However, particularly large and significant rivers and lakes, as well as marine waters, are designated "Shorelines of Statewide Significance" (SSWS). These have increased protection through a prioritized preference of use, similar to how we apply mitigation standards. These are set out in statute, with preferred use for natural conditions that support the long-term interests of all state residents. RCW 90.58.020(f); https://app.leg.wa.gov/RCW/default.aspx?cite=90.58.020.</p> <p>The Whatcom County SSWS are the Nooksack River, Lake Whatcom, Baker Lake, and marine waters, including Birch Bay. R CW 90.58.030.</p> <p>The SMA also discusses "shorelands" or "shoreland areas", which includes lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wet-</p>	

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					<p>lands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology.</p> <p>RCW 90.58.030(2)(d), https://app.leg.wa.gov/RCW/default.aspx?cite=90.58.030.</p> <p>I recommend the SMP Handbook, which is linked on DOE's website and explains how the SMP process works. Specific issues and provisions are separate chapters in the Handbook. https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Shoreline-Master-Plan-handbook; https://apps.ecology.wa.gov/publications/SummaryPages/1106010.html.</p> <p>P.S. If you are wondering why I have written this, it is because I do not believe that the Planning Commission and citizen committees generally are being provided with relevant and timely information on the laws and policies they are asked to review and this fails to serve public needs and public input requirements. Unless citizen-appointed committees have a comprehensive and complete understanding of the purpose and intent of the policies and laws they are asked to review, they will remain tools of the Planning Department. Please continue to ask questions and ensure that you are provided with all the information you need upfront, before beginning a large review project.</p>	
PB04	Pam Borso	4/21/21	F	16.16.270	<p>Restore Reasonable Use impact area language in the Dec 4, 2020, draft Exhibit F, WCC 16.16.270 Reasonable Use Exceptions.</p> <p>I urge Whatcom County to reject the proposed change from the Planning Commission to expand the maximum impact area for single-family residences from 2,500 sf to 4,000 sf. The purpose of the reasonable use provision is to allow only the minimal "reasonable" use of property to avoid a constitutional taking when fully applying the standards of critical areas regulations. A</p>	Your comments will be forwarded to the P/C & Co/C for their consideration.

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					4,000 sf home is excessive.	
PB05	Pam Borso	4/21/21	F		Incorporate the State of Washington Department of Fish & Wildlife's new riparian buffers guidance. The buffer requirements contained in the SMP are less than adequate to ensure no net loss of riparian and stream functions vital to fish, wildlife and our water supply.	Please see the response to comment #FW/WEC09.
PB06	Pam Borso	4/21/21	F		Incorporate regulations to prepare for accelerating sea level rise impacts. Whatcom's SMP does not incorporate protections from this peril. Not only our marine shorelines will be impacted, as Ecology writes "more frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life." 31,235 homes in Washington State may be underwater by 2100; the value of the submerged homes is an estimated \$13.7 billion.	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.
WSPA01	Holli Johnson, Western States Petroleum Association	4/21/21			The most recent staff memorandum contains several important explanations and clarifications regarding what is meant by the "baseline" condition upon which no net loss project mitigation requirements are measured and recognizes important distinctions between what is appropriate to require for project mitigation obligations and what must be voluntary or incentive-based for restoration. These principles should be built into the language of the code itself or, at a minimum, into the language of the adopting ordinance, so as not to disappear into history once the code amendments are adopted.	Staff doesn't feel this is necessary, as this explanation is based on DOE's guidance and explanatory handouts so it true throughout the state. Nonetheless, your comment will be provided to the P/C and Co/C for consideration.
WSPA01	Holli Johnson, Western States Petroleum Association	4/21/21			The County Council is currently in the final stages of review of comprehensive plan and code amendments for fossil and renewable fuel facilities and expansions. This work is the result of many months of effort and good faith negotiations between the County and interested stakeholders, including WSPA. As noted by staff in several places in the draft shoreline master program amendments, it is imperative that these shoreline master program amendments be fully consistent with the outcome of that other County Council effort. WSPA asks for an additional opportunity to review and provide input on future revisions made by staff to achieve that consistency before these amendments to the shoreline master program are adopted.	Please refer to the response to comment P6609. The P/C's recommended amendments will be forwarded to the Co/C for their review, public hearing, and adoption (during which they may make their own amendments). We would urge you to pay attention to the SMP update page (or Council's agenda page), where new drafts are posted as decisions are made.
WSPA01	Holli Johnson, West-	4/21/21		23.40.010	The Shoreline Use and Modification Use Table establishes a	What is shown in the draft Title 23 regard-

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	ern States Petroleum Association				shoreline conditional use permit requirement for expansions of existing legal fossil fuel refinery and transshipment facilities and new or expansion of existing legal renewable fuel refinery operations or renewable fuel transshipment facilities. Conditional use permit review requirements for these facilities are being addressed in the zoning code amendments currently under review by the County Council. A separate, duplicative and potentially inconsistent shoreline conditional use permit review for the same facilities that will undergo thorough zoning code conditional use permit review is unnecessary and should be eliminated. In particular, it is not appropriate to apply shoreline conditional use permit requirements to upland activities that will be fully evaluated under the zoning code requirements applicable to those upland activities. At a minimum, this provision should clarify that such fossil fuel facilities located outside of the shoreline jurisdiction should be evaluated under the zoning code conditional use permit criteria and not pursuant to shoreline conditional use permit requirements.	ing this issue is what staff was provided over a year ago. Once Council makes a final decision on their separate Cherry Point amendments staff will rectify the differences. You should understand, though, that if both Title 20 and Title 23 require a CUP for a certain activity, the permits would be combined under WCC 22.05.030 (Consolidated Permit Review). Shoreline requirements would not be applied outside of the shoreline jurisdiction.
DK01	David Kershner	4/22/21	N/A	N/A	I have served on the Whatcom County Climate Impact Advisory Committee since its inception in 2018. While I am not writing in my capacity as a committee member, I have familiarized myself with the research on sea level rise related to climate change. The financial costs to Whatcom County taxpayers and property owners of not adequately planning for sea level rise are likely to be substantial. As you may know, the real estate company Zillow estimates that nearly \$14 billion worth of housing in Washington State could be submerged in the next 80 years under some climate change scenarios. The ecological costs will also be substantial, if we plan to prevent flooding of structures but not to allow migration of shoreline habitat. That habitat not only supports wildlife populations, it also provides economic benefits, such as recreation and fisheries. To reduce the economic toll of sea level rise and truly protect shorelines consistent with the intent of the Shoreline Management Act, I urge you to recommend revising regulations to ensure that newly-created lots only allow construction in areas that are not likely to be inundated in this century. Where existing lots	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.

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					are large enough to still allow residential, commercial, or industrial uses compatible with the zoning, I urge you to recommend a similar revision. In addition, I support revising the regulations to ensure that new or substantially changed structures be elevated above the likely sea level rise elevation for the life of the structure. Waterfront property that I own on Lummi Island would likely be constrained in its use due to these regulations. Nevertheless, new protections are the only responsible approach to shoreline planning, given what we know about sea level rise.	
DK01	David Kershner	4/22/21			As a former commercial salmon fisher, I also support strengthening riparian buffer restrictions consistent with recommendations of the Washington Department of Fish and Wildlife Riparian Ecosystems Volumes I and II. Salmon populations have declined in part due to riparian habitat degradation. We need to protect this habitat to restore healthy salmon populations.	Your comment will be forwarded to the P/C & Co/C for their consideration.
AC01	Alan Chapman	4/22/21			I have been involved in fisheries management, and watershed resource issues in Whatcom County for over 30 years. Regardless of the level of belief one might have in projections of climate change and sea level rise and associated storm surges, it does not make sense to allow development in areas of high risk. I urge the county, in the interests in avoiding significant damage to life, property and natural resources to not allow creation of lots where reasonable use would be subject to a high risk of damage from climate change effects, sea level rise, or reduce public trust ecological benefits within the foreseeable future. Where existing lots are large enough to still allow residential, commercial, or industrial uses compatible with the zoning, I urge you to recommend or require a similar risk avoidance approach. In addition, I support revising the regulations to ensure that new or substantially changed structures be elevated above the likely sea level rise elevation for the life of the structure.	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.
AC02	Alan Chapman	4/22/21			In the interest of protecting and achieving a net ecological gain of shoreline functions through consideration of locational relevant riparian buffer requirements that might be identified in the	Your comment will be forwarded to the P/C & Co/C for their consideration.

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					Washington State Department of Fish and Wildlife recent guidance on riparian guidance.	
PR01	Paula Rotondi	4/22/21	F	16.16.270	<p>As you consider changes to the Shoreline Master Plan (SMP), I urge you to make decisions based upon what will be best for those living here twenty years from now – rather than what is best for corporations' short term profits. Please draft more stringent SMP standards.</p> <p>First, regarding Reasonable Use Exceptions, please reject the proposed change to expand the maximum impact area for single family residences from 2,500 square feet to 4,000 square feet. "Reasonable Use" means there must be some minimal use such as a 2,500 square foot house. If those living here twenty years from now are to have natural treasures such as salmon fishing, crabbing, the sight of Orcas, the SMP cannot afford extravagances such as a 4,000 square foot house that will do more damage to our already damaged shorelines.</p>	Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.
PR03	Paula Rotondi	4/22/21			Second, the buffer requirements in the SMP do not adequately protect riparian and stream functions which are essential for sustaining fish, wildlife and protecting our water supply. If people living here twenty or more years from now are to have the fish and wildlife treasures we enjoy today and have adequate supplies of clean water, then the SMP must incorporate the State of Washington Department of Fish & Wildlife's new riparian buffers guidance.	Please see the response to comment #FW/WEC09.
PR03	Paula Rotondi	4/22/21			Third, please do not add to the challenges of those living here twenty years or more from today who will be dealing with increasingly severe ramifications of climate change. Climate change causes sea level to rise and also causes more extreme storms with tide surge coastal flooding and also river flooding. The Washington State Department of Ecology, the Federal Emergency Management Agency, private investment companies, insurance companies, and real estate companies (Redfin most recently) warn that many thousands of homes worth billions of dollars will be lost due to climate change exacerbated flooding. Please include regulations in the SMP to prepare for accelerating sea level rise.	Please see the responses provided for Comments FW/WEC01, FW/WEC02, FW/WEC12, WCPW07, WCPW08, WCPW09, RES03, RFW02, RFW03, RFW04, RFW06, RFW07, RFW11, RFW17, & PB06.

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P6611	Dave Klanica, Phillips 66	4/22/21	D		<i>Extent of Jurisdiction.</i> Given the recent Department of Ecology's revocation of the Port of Kalama and Northwest Innovation Works Shoreline Conditional Use Permit, questions have been raised as to overall shoreline management authority. Whatcom County, as well as other Counties and Ecology must lawfully apply its shoreline management program requirements, particularly when seeking to require mitigation for activities that occur outside the jurisdictional shores of the State. It appears that Ecology unlawfully applied certain mitigations when the only activities within the shoreline were dredging for a new dock berth, portions of the security fence, an infiltration pond, a first-flush pond, fire suppression water storage and a containment berm for certain storage tanks. We ask that Whatcom County commit to act within its jurisdictional boundaries.	We are. Shoreline jurisdiction is addressed in §23.20.010.
P6612	Dave Klanica, Phillips 66	4/22/21			<i>Consistency with Ongoing Comprehensive Plan and Code Amendments.</i> Both WSPA and Phillip 66's previous comments request that the shoreline master program amendments be consistent with the outcome of the ongoing good faith negotiations between the County and interested stakeholders that has occurred over many months related to the Comprehensive Plan and Code Amendments. We request consistency primarily as to definitions as the development of the relevant definitions was a significant effort and even slight differences in wording across county programs could add uncertainty and confusion. Phillips 66 does not believe that all activities which will require a conditional use permit under the Code Amendments should also require a conditional use permit under the shoreline management act. The shoreline program only affects activities that are within the jurisdictional shores of the State. The Zoning requirements cover much broader non-shoreline areas. Additionally, shoreline conditional use permit requirements should not be applied to upland activities that will be fully evaluated under the zoning code requirements applicable to those upland activities. The programs also involve different decision makers and appeal paths. The differences can warrant different permitting approaches.	Please see the responses provided for Comments FW/WEC16, RES10, P6609, WSPA01
BH01	Bill Haynes, Ashton	4/22/21	D	23.50.140	Regarding the Table for Dimensional Standards (page 147), the	We agree; our math was wrong. It has

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	Engineering				<p>minimum length required to reach a moorage depth of 5' below ordinary high water.</p> <p>Ordinary High Water (OHW) elevation 314.5' has been well established on the Lake Whatcom - at least for the multiple projects I've been involved with.</p> <p>The proposed change results in a low water depth at the outer end of the dock (float) of 2'. Design low water has been established at an elevation of 311.5'.</p> <p>In a Jan. 29, 1999 letter from the WA Dept. of Ecology (DOE) to WCPDS and the WC Hearing Examiner, the DOE determined "...an in-water depth of 2.5 feet at 311.5 feet MSL is the minimum necessary draft to accommodate a standard powerboat on Lake Whatcom."</p> <p>The proposed update lowers the design depth from 2.5' to 2.0'. That depth is at the watered end of the dock only. Presumably, depths towards shore are shallower and at low water level a power boat will have less than 2' to moor in. In addition, the landward end of the float may go aground depending on the bottom contours if the outer end is at 2'. If the site is exposed to waves, the dock/boat may be tossed up and down on the lake bed.</p> <p>Assuming a 6'x20' floating dock aligned with its approach ramp, I would propose the overall minimum length required to reach an inshore depth of 5' at OHW (2' depth at 311.5'). That assumes depths offshore increase.</p>	been amended to be 5.5 feet now.
KC04	Kim Clarkin	4/22/21			<p>I am concerned about the current document's lack of land use restrictions on areas that will be affected by sea level rise. I do not agree that waiting to strengthen regulations till more information is available is a good idea. In the meantime, many decisions will be made that may harm critical areas along the changing shoreline. Those decisions may also harm the people who invest in shoreline developments that storm surges could damage. This is the kind of foresight and protection citizens expect from their government—not a laissez-faire attitude such as led</p>	<p>Please see the responses provided for Comments FW/WEC01, FW/WEC02, FW/WEC12, WCPW07, WCPW08, WCPW09, RES03, RFW02, RFW03, RFW04, RFW06, RFW07, RFW11, RFW17, & PB06.</p>

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					to the Oso disaster. Other commenters have given strong references for up-to-date scientific information the Planning Dept. can use to write pertinent and reasonable rules to distance new developments from the shoreline.	
KC05	Kim Clarkin	4/22/21			I do not see a reason for expanding the reasonable use exception to 4,000 ft2 in critical areas. That is a trophy home, not a reasonable exception. Critical areas are critical to wildlife, water and other things that we are trying to protect. Let's actually protect them.	Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.
KC06	Kim Clarkin	4/22/21			<p>I strongly encourage you to use WDFW's most recent recommendations for riparian buffer widths for new developments. They are based on a thorough knowledge of rivers, valleys, and in-stream habitat development over the long term, and they should be incorporated in our long-term planning. No one is saying that existing developments have to be retired. New development should be completely different; recognizing our expanding understanding of the damage we wreak on ecosystems, we should aggressively seek to avoid that damage.</p> <p>I congratulate you and the Planning Department for making otherwise reasonable updates to a huge document and working toward making regulations more understandable. It has been a long slog for you, and I'm grateful for your attention to this extremely important roadmap to our future relationship with our environment. Please make it as strongly protective as you can.</p>	Please see the response to comment #FW/WEC09.
JM01	Janet Migaki	4/22/21			<p>The SMP, CAO, City and County Comprehensive Plans mention or refer to a quagmire of environmental agencies + regulations, as well as mention or refer to multiple intersecting jurisdictions, permits, ordinances, exemptions and waivers—all used for 'managing' waters of the State.</p> <p>Lake Whatcom, a significant water of the State, is not a healthy or protected source of water, yet it is used for Bellingham's drinking water. The Lake's well documented decline is troublesome since many of the lake's contaminants resist the treatment processes used by the City treatment plant and pass into public drinking water supplies.</p>	Lake Whatcom's water quality is managed through the Lake Whatcom Management Program, under the direction of the Lake Whatcom Policy Group. You can find what you're looking for at https://www.lakewhatcom.whatcomcounty.org/ .

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					<p>Where in the SMP and accompanying documents does it mention or discuss the primary and ultimate regulatory agency held fully accountable for protecting the water quality of Lake Whatcom water?</p> <p>The Lake is violating several water quality parameters +contaminants, and the water has not been tested for a full toxicology analysis since late 1990s.</p> <p>Does the SMP address protecting the Lake's total water quality? I know the 50-year TMDL tries to address low DO levels, with not encouraging reports to date. What about so many more lake water quality issues- who is accountable and responsible for protecting and keeping the lake healthy enough to be a drinking water source?</p>	
MRC01	Marine Resources Committee	4/22/21			<p>Thank you for taking the time to review the Whatcom County Marine Resources Committee's (WCMRC) comments on marine land protection. One role of the WCMRC is to work with county leadership and other key constituencies to help protect marine and enhance nearshore habitat through local and state ordinances and regulatory plans. The WCMRC supports regulations and policies that further protect and enhance marine shoreline areas that are vital economically, culturally, recreationally, and environmentally.</p> <p>The Whatcom County Marine Resources Committee supports the inclusion of the proposed amendment to Chapter 8: Marine Resources Lands policy section, as developed by the WCMRC, to the Comprehensive Plan.</p>	Your comment will be provided to the P/C and Co/C for consideration.
BIAWC14	Rob Lee, BIAWC Executive Officer	4/22/21	F		<p>We want to say thank you for:</p> <ul style="list-style-type: none"> recommending the 4,000 sq. ft. RU area, we request excluding septic systems from this square footage if covered with native landscaping. For creating the minor variance for buffer reduction of the 25% to 50%. We request that you lower the fee for minor variances. We request that any buffer reductions under Reasonable Use are decided administratively through a minor variance, 	Your comment will be provided to the P/C and Co/C for consideration.

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					Critical areas included.	
BIAWC15	Rob Lee, BIAWC Executive Officer	4/22/21	F	16.16.270 & 16.16.273	<p>Reasonable Use and Variances: We will comment separately on the permit process, "impact area" size, and criteria issues.</p> <p>A. Permit Procedure:</p> <p>1) <i>Present Process</i>: PDS staff has proposed major changes to the procedures. The current 2017 CAO allows staff to grant reasonable use (RU) permits for one single family house under very strict criteria if CAO rules alone would deny "all reasonable and economically viable use" of the property. The next step is a variance requiring Hearing Examiner (HE) approval.</p> <p>We were surprised to learn recently that these RU permits have become a major part of local wetland scientist's workload. This is due mainly to high buffer standards and tight limits on adjustment options. These conflicts between strict environmental rules and permitted, customary land uses are obviously not unusual.</p> <p>2) <i>Staff Proposed Process</i>: As we understand it, the current draft Exh F/CAO proposal, dated 4/2/2021, offers a 3-level process:</p> <p>a) Minor Variance: if a person only needs a 25 to 50% CAO buffer reduction, they will apply for this approval. The draft does not say whether this value is total area, width, or both. Staff decides these permits; an application and notice to neighbors is required. We do appreciate this new minor variance idea allowing staff approval. The concept should be used for other CAO issues. No further CAO permits are needed. See Section 16.16.273, p 34.</p> <p>b) A Major Variance is required if the Minor Variance is denied. One would apply to PDS, and the H/E would decide after a hearing. This is an expensive and slow process; the fees are now \$2,750 each, plus critical area reports, probably consultants doing the applications, a consultant or attorney at the hearing, and possible legal costs if you or an opponent appeals the decision. Anyone testifying, or you, can appeal the decision to Supe-</p>	<p>Regarding the commenter's point A.2.b: A major variance wouldn't be required if the minor variance is denied; a major variance would be applied for if one wants to reduce a buffer more than 50%. They're not sequential: one just applies for the permit one needs.</p> <p>Similarly, regarding the commenter's point A.2.b: With staff's assistance, an applicant should know whether a major variance is attainable, given the required findings (\$22.07.050). Thus, if one understood one's chances to be nil, one would just apply for an RUE; so again, they don't have to be sequential.</p> <p>The biggest difference is that through a variance, whether minor or major, one must still mitigate for impacts. Under an RUE the H/E can allow impacts without requiring mitigation. This would apply on a property that is so encumbered by critical areas that nothing could fit on the lot without causing impacts and there's no room to mitigate.</p>

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					<p>rior Court, also costly and slow. See Section 16.16.273, p 34.</p> <p>c). A Reasonable Use Exception is the last resort, virtually identical to the Major Variance process and possible outcomes. It would also be decided by the HE, with high similar costs, and potential litigation. See 16.16.270. A and B.</p> <p>One may apply for an RUE only if their Major Variance app is denied. If you do not get adequate relief with a major variance, you must repeat the process to apply for and hope to be granted an RUE by the HE, paying like fees and costs again. You or an opponent may appeal this decision too to Superior Court from someone, at either stage.</p> <p>3) BIAWC/GAC Proposal: a simpler, less costly, and more practical alternative for all sides:</p> <p>a) Minor Variance (informal staff decision): expand the options to allow buffer adjustments above 50%. This would be determined mainly on a valid scientific analysis of site and vicinity functions and values of the affected wetland(s) and/or habitat(s), acceptable to qualified staff. Also, adjustments should be possible in both total buffer area and width. Can be appealed via RU process.</p> <p>b) Major Variance (formal HE decision): eliminate it, as redundant with the RU option, adding unneeded costs, complexity and time demands on both public and private parties.</p> <p>c) RUE: Use the draft as written; consider simplifying criteria per comments, information, and proposal below, per Item C.</p>	
BIAWC16	Rob Lee, BIAWC Executive Officer	4/22/21	F	16.16.270(C)(12)	<p>B. "Impact Area" size limit: For reasons stated in our April 12 2021 letter, we support the 4,000 sq. ft. value for the "impact area" to be allowed as the upper limit for buildings and other impervious surfaces, except for a minimal standard driveway. We suggest "impact area" be defined for certainty, and exclude landscaped areas using native plants and water features, and septic mounds or areas. The term "footprint" has a different meaning in the construction and real estate worlds.</p>	<p>Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.</p> <p>And the commenter is correct about the impact area having no scientific basis; rather, it is a legal basis. The courts have</p>

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					Also, there is no scientific basis for any fixed value, 2,500 or 4,000. Also, some landowners who already have a "pre-CAO" house or other building on their parcel would be severely penalized by the 2,500 value.	consistently interpreted a reasonable use (in SFR zones) to be an averaged sized house in that jurisdiction. In Whatcom County, PDS records indicate that an averaged sized house is 1,820 sf, meaning the footprint would be around 900-1,000 sf (2-story). We would expect that someone wanting a larger home or more appurtenant improvements wouldn't choose a lot that is so encumbered by critical areas that they couldn't fit it on the property.
BIAWC17	Rob Lee, BIAWC Executive Officer	4/22/21	F		<p>C. RU Criteria: In our April 12 2021 statement, we raised several substantive questions on the "reasonableness" of some of the many RU criteria (12! see p 2-3). And we attached the full text of guidance on Reasonable Use from the state Department of Commerce again. We did omit the small p1 diagram because it was not clear how it related to the text on it or overall context.</p> <p>In general, this guidance advises "careful use" of terms such as "alternative or possible uses, etc."; and care with "economic use" etc.; see p 2-3.</p> <p>In the Synopsis of Public Comments updated April 14, 2021, staff commented at length on this guidance (pp 110-113). We have no disagreement with most comments. But in D, p 111, if you as the government are going to say: "the criteria ... need to consistent with case law...", then you have an obligation to impacted citizens to cite at least the more recent and relevant cases and point out the claimed support.</p> <p>Somewhere in the Synopsis, staff also referred to Department of Ecology guidance on this topic. I searched their site and found: "Wetland Guidance for CAO Updates"; 65p, 2016 (attached). The subject is cited on 4 pages: 8, 13 and 31-32. This excerpt is the only substantive guidance in the document, p 8:</p> <p>"Exceptions are typically addressed in a CAO in the context of</p>	Your comments will be provided to the P/C and Co/C.

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					<p>reasonable use of property. For more information about this regulatory tool, see Section VII of the Critical Areas Assistance Handbook published by the Washington State Department of Commerce: http://www.commerce.wa.gov/Documents/GMSCritical-Areas-Assist-Handbook.pdf</p> <p>We think this is an important legal issue for many county landowners. We suggest you ask the PDS/Commissions' legal counsel to review these criteria and related resources and produce a memo with a recommended set of criteria for the record before you complete your recommendations on this important issue to the County Council. The adopted CAO definitions of Reasonable Use and RU Exception should be reviewed too; attached.</p>	
BIAWC18	Rob Lee, BIAWC Executive Officer	4/22/21	F		<p>2. Buffers for wetlands and Habitat (HCAs)</p> <p>Our April 12 testimony makes several comments on this important issue. In general, the buffers make more land unusable for all kinds of essential land uses than preserving the actual wetland.</p> <p>At this point, we have carefully reviewed the 3 most recent statements by Miller Environmental Services on the many changes proposed by staff re wetland and habitat buffer and related issues. We have discussed many with him and find that we agree in general with all the comments. A few other wetland scientists have also submitted valuable comments, e.g., NW Ecological Services and NW Wetlands Consulting.</p> <p>We respectfully recommend that Planning Commission members and staff review these comments carefully, and seriously consider acceptance. Almost all are opposed to new, more restrictive language, and do not propose new text or values.</p> <p>Many of staff's proposed changes, and opposed by Miller, would tip whatever balance the CAO now has toward preservation of more non-wetland areas, i.e., buffers. Other items objected to will make the process of obtaining some flexibility in the rules</p>	Your comments will be provided to the P/C and Co/C.

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					<p>more difficult, or impossible in some cases.</p> <p>We submitted two of the three Miller letters with our April 12 letter: the February 19, 2021 letter (8 pages; 14 comments, and the Jon Maberry Prepared Motions, one page, 12 issues, dated February 25 2021.</p> <p>We are attaching the firm's most recent April 12, 2021 letter to this statement, 8 issues and 6 p.</p> <p>We are taking this approach because no active members of our GAC or of the BIAWC have the scientific credentials or experience to do the kind of objective analysis of the draft changes that Miller and the other scientists have done.</p> <p>From reading all the Miller comments, we conclude that if the CAO draft is adopted as written today, the Whatcom CAO will be one of the restrictive in the state, if not the most!</p>	
BIAWC19	Rob Lee, BIAWC Executive Officer	4/22/21	F		We do ask that the Planning Commission hold the record open for written comments for at least 2 weeks. We will review the testimony after the hearing and may want to send additional comments.	The P/C considered this request at their 4/22 hearing and denied it.
MES51	Ed Miller, Miller Environmental Services	4/22/21	F	16.16.900	<p>P/C Public Hearing Testimony: The WAC definition of "water-course," which is where the ditches would fall, talks about the presence of a high water mark and the presence of fish; it specifically excludes irrigation ditches, canals, stormwater treatment, conveyance systems, or other entirely artificial water-courses. So it seems to me that ditches, unless they carry fish or convey a prior stream, are not waters of the state. So it seems to me that ditches are not waters of the state unless they carry fish or convey a prior stream. And from a practical standpoint, regulating ditches in Whatcom: If all the ditches become a critical area with a buffer, we'd have to do critical areas report for everyone with the ditch, with a buffer. I'm not sure how that would work. If you filled a ditch, what the mitigation would be for that, would you have to create another ditch? I'm not sure how that would work. If Public Works was to create a new ditch for a new road they'd be creating a new critical area, putting a new buffer on someone's property. Additionally, most all of the ditch-</p>	These comments were considered by the P/C in their deliberations and final recommendation on the definition and regulation of ditches.

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					es in Whatcom County that have these buffers are located in County right-of-way, so it just seems from a practical standpoint it's not even doable. Aside from the fact that they don't appear to be waters of the state by state definition.	
TSF09	Diani Taylor, Taylor Shellfish Farms	4/22/21			P/C Public Hearing Testimony: I am a 5 th generation shellfish farmer with my family business, Taylor Shellfish Farms. We have been farming shellfish here in the state since 1890 and grow a variety of oysters, mussels, clams and geoduck today. Our company is vertically integrated where we farm-to-table, so we include everything from hatcheries and nurseries to farms, processing facilities, and retail and restaurants. I wanted to introduce myself after we submitted comments on the most recent draft of the SMP document. We really appreciate regulations, especially in the Shoreline Master program, that are so important to protect our environmental resources, including water quality and shoreline and our shoreline ecosystem, which is important and critical for our farms. Our comments are intended to just ensure that the regulations around aquaculture are based on the most current scientific and technical information and align with the state guidelines.	Comment noted. These comments were considered by the P/C in their deliberations and final recommendation. Please see staff responses to TSF's written comments addressing their issues.
RES25	Karlee Deatherage, RE Sources	4/22/21			P/C Public Hearing Testimony: The current version of the SMP is an improvement for protecting our shorelines. However, there are 3 areas to further strengthen. We submitted a letter on April 12 asking the P/C to make changes with respect to reasonable use, sea level rise, and include the use of Department of Fish and Wildlife new riparian buffer guidance in the critical areas ordinance. The science is clear when it comes to sea level rise. We have been and continue to witness the impacts of rising seas. With storm surges impacting property, we will see the loss of critical shoreline habitats for salmon and forage fish through a phenomenon called coastal squeeze if we don't act now to prevent the construction of buildings or infrastructure in harm's way. Suggested code for amending 23.30 under general regulations that the new section was included in our letter, please restore the staff proposed language for 16.16.270 (Reasonable Use	These comments were considered by the P/C in their deliberations and final recommendation. Please see staff responses to these previously raised issues.

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					<p>Exceptions) and improvements over the current code to require the Hearing Examiner approval for reasonable use exceptions. However, 4,000 square feet of impact area is excessive, especially when some lots could be 6,000 square feet.</p> <p>Lastly, WDSW release guidance on riparian buffers in July and also in December 2020. We hope the P/C will incorporate best available science from WDW that calls for a one hundred foot buffers known as the "200-year site potential tree height" from the edge of the 100-year floodplain or channel migration zone. This could be applied as a new section to 16.16.420 (General Standards) for frequently flooded areas or a new entry in the table for 16.16.740 (Habitat Conservation Area Buffers).</p>	
PG01	Andrew Gamble, PetroGas	4/22/21			<p>P/C Public Hearing Testimony: We do have a few concerns, questions, and clarifications about the update.</p> <ul style="list-style-type: none"> • First of all, we've noticed that there are some overlapping regulations, and we just want to point out that where there's already existing regulation in place and that the SMP need not be layered on and may not actually be necessary. • Another thing that we're looking at is that there's a potential for a maximum height requirement. We don't think that should apply to the Cherry Point UGA. • And then there's maintenance dredging. We think that should probably be a permitted and conditional use, and I think I read somewhere that it was to be prohibited and conditional. That should just be for the maintenance dredging. And then dredge material disposal management actually is already in place, so it doesn't need to be managed again. • And then some clarification on no net loss. We were looking for a bit of an explanation on the baseline condition. Is that the same as it was outlined in, I think it was a 2007 staff report, on a previous update? • And as for mitigation, is that still achieved through voluntary and incentives, or is that going to be permit required mitigation? Could that be applied to legacy or historical problems and not part of a new project proposal? 	<p>These comments were considered by the P/C in their deliberations and final recommendation. But briefly:</p> <ul style="list-style-type: none"> • Staff doesn't believe there are overlapping regulations. • There does need to be height limitations so as to protect the shoreline, especially in terms of protecting views. • Maintenance dredging is proposed to be a Permitted Use. • The baseline condition was set by the 2007 SMP Update and it's corresponding background documents. • Some mitigation may be required for impacts from project proposals, but the County does not require applicants to "fix" existing issues, though applicants are always welcome to do so through voluntary mitigation. • No, Shoreline CUPs already existed in the County's SMP. • Currently only SLR policies are being considered, which would not create

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					<ul style="list-style-type: none"> And does this SMP Update establish a shoreline conditional use permit? Then finally, we were looking for some clarification on the sea level rise policies. I heard Mr. Hansen talk about that as well. It's kind of scattered throughout. And we were looking to see if this is going to create new responsibilities for permit applicants. 	new responsibilities for permit applicants. However, we expect that in the not too distant future there may be regulations requiring applicants to address it in their permit analyses.
P6613	Tim Johnson, Phillips 66	4/22/21			<p>P/C Public Hearing Testimony: I would refer you to the Phillips 66, April 12th written comments as well as some supplemental comments that were submitted today via email. But I would like to highlight a few comments tonight, specifically in Exhibit C, Chapter 8.</p> <p>Regarding Policy 8T -1 we would request some clarification of the methods by which the County will coordinate with landowners to protect marine resource lands</p> <p>In policy 8 U-2 we request some clarification of the types of non-regulatory programs and options and incentives that owners of marine resource lands can employ to meet or exceed the County environmental goals.</p> <p>In Exhibit D, Title 23, the general provisions indicate that shoreline development must be consistent with Shoreline Management Act of 1971, the County Shoreline Regulations, and other County land use regulations. Chapter 23 then references certain requirements for existing legal fossil fuel refinery operations, existing legal transshipment facilities, expansions of those facilities, and new or expansions of renewable fuel refineries or transshipment facilities. And is related definitions also provided on page 241 on expansions of existing fuel, fossil fuel, and renewable fuel facilities that says they are required to obtain conditional shoreline permits. As the planning department is aware, industry, labor, and environmental organization stakeholders have been working together to develop recommendations and changes to the County Council's October 2019 proposed Comprehensive Plan amendments. There's been considerable progress made by the stakeholders, and those have been present-</p>	These comments were considered by the P/C in their deliberations and final recommendation. Please see the staff responses to Phillips 66's written comments on these same issues.

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					ed to the County Council for their consideration, and we request that this SMP draft be delayed until the final work from the stakeholder effort is accepted or rejected and the final definitions and framework for conditional use permit is finalized. And then finally, I would just like to note that we would request an additional opportunity to review and provide input and further revisions made by the staff before the shoreline amendments are finalized.	
WH02	Wendy Harris	4/22/21			<p>P/C Public Hearing Testimony: I support the comments that have been submitted by the environmental community; they are well founded.</p> <p>But I want to express my outrage that the P/C majority is using their position to reduce environmental protections for their own interests, ignoring what is best for the public and the planet. This is being done at a time when scientists have issued three distress letters about how we are not doing enough fast enough at the risk of biosphere collapse and extinction of most forms of life, including our own. There are many members of the public who share my views. If you are here for yourself, you're here for the wrong reason.</p> <p>I'm also appalled at the lack of science I failed to hear being discussed. I heard agenda based changes being proposed and I heard nothing regarding the science that supports this. This must have resulted in staff using science as if they were drafting a legal brief to support their argument. Why wasn't the science presented front and center to the topic being discussed? This is troubling. I understand that this round of the SMP update does not require a new review of the foundational elements necessary to determine no net loss. However, DOE indicated that there was an exception for a substantial change in Shoreline function. I believe that applies here and is very relevant since the County still lacks baseline standards, means of quantification, and monitoring protocols. In other words, we have no means of determining no net loss, which leads to the following statement in all but the largest SEPA reviews, which is in regards to species of wildlife present: "none known to the best of</p>	These comments were considered by the P/C in their deliberations and final recommendation.

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					my knowledge." And by that everybody escapes having to care about or mitigate for wildlife impacts or whatever other kind of impacts are around. Other changes in events approved or pending are going to reshape the shoreline in the County jurisdiction in a manner that will make it unrecognizable from its current condition. We've lost one of the most important shoreline key-stone species since the last SMP. The sea star numbers established how the loss of even a small number of stars had a significant impact on our healthy shoreline function. There is the Birch Bay berm. There's the Cherry Point update that's allowing expansion of use and of size, and that's going to bring in more tankers which have led to the killer hornets that are here in Blaine, and they're believed to arrive via Cherry Point tanker. And so these are vectors for aquatic invasive disease. Taken as a whole, this is enormous change and it's a loss in shorelines of statewide significance that does not follow the prioritized shoreline use preference so that we estimate one sentence. I asked that the DOE require the County at least provide a concrete example of how the no net loss would work.	
BIAWC20	Roger Almskaar, BIAWC	4/22/21			<p>P/C Public Hearing Testimony: We submitted our 2nd round of testimony by email. It was late today. Did you see our letter come in a 4-page letter and some attachments? OK, good, thank you. So that's in the record. So I'll move along here.</p> <p>Let's see, I want to say thank you to Cliff Strong for his good work on the staff report, and the synopsis just made our work a lot easier in figuring out what's going on with this extremely complicated project.</p> <p>Most of the impacts on building that we're concerned about are coming from critical area rules, not shoreline rules. We just don't get into the shoreline areas very much anymore.</p> <p>I want to give you something about my background, though I think most of you don't know this. I'm a land use consultant right now, but I got into planning in 1971, being hired by Whatcom County to do the first SMP, which goes back a long time. Our final product adopted in 1976 was about 170 pages. Lots of</p>	These comments were considered by the P/C in their deliberations and final recommendation. Please see the staff responses to the BIAWC's written comments on the proposed reasonable use process.

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					<p>definitions that I had to write. At that time the state guidelines from Ecology were a booklet of about 25 pages. I don't know if Cliff has ever seen that one. Let me move on here.</p> <p>I think the most important thing for me to say tonight is we're very concerned about the reasonable use process. And I've been surprised in the last few months to learn that that process has become a major part of the workload of many of the local wetland scientists. That was not true a few years ago, and I've been doing short plats for a long time and just hadn't heard that. So my most important thing to say tonight is that we are really concerned about the staff's new proposal to have three layers of permit processing to get a reasonable use exception. The first layer would be the staff of (mini?) variance, second would be a variance through the H/E, and the third would be a reasonable use through the H/E. So you'd be going there twice, paying the same amount of money, twice fees and everything. And so our proposal is to eliminate the middle level, the variance that would go to the H/E. And if you're not satisfied with what you are able to negotiate with a staff, with your wetland scientist, work out a deal based on science, not arbitrary numbers, it's politics. But then you can go to the H/E. So we're agreeing to support that. It's still going to be expensive for people, but at least it's not double the cost as it is. But please look at that in detail as quite a bit in our paper on that.</p>	

Total # of comments: 277

TECHNICAL MEMORANDUM



Date: December 31, 2020
To: Cliff Strong, Ryan Ericson
From: Dan Nickel, Mark Daniel, Devin Melville
Project Name: Whatcom County SMP

Subject: Whatcom County SMP Periodic Update - No Net Loss Statement

Introduction

Whatcom County (County) is conducting a periodic review of its Shoreline Master Program (SMP). While the majority of amendments are to comply with current State law and address recent legislative updates, to clarify prior interpretations, and reorganize the SMP to improve usability for both applicants and staff), several amendments are substantive in nature and merit additional documentation to ensure that implementation of the updated SMP and future development will not result in a net loss of shoreline ecological functions.

The Shoreline Management Act guidelines (Guidelines) require local shoreline master programs to regulate new development to “achieve no net loss of ecological function.” The County’s 2007 comprehensive SMP update was approved under this benchmark based on the analyses performed then¹. This memorandum builds on those analyses and addresses the amendments proposed for this year’s periodic review and specifically identifies amendments that are more substantive in nature.

The following areas of the SMP have amendments that warrant evaluation:

- Pier and dock standards
- Common line setback evaluation
- Trail location standards
- Nonconforming residential development
- Buffer reduction mechanisms
- Residential accessory structures

¹ See <https://www.whatcomcounty.us/3119/SMP-Update-2020-Documents>

The purpose of this memo is to describe these amendments and evaluate their potential effects on shoreline ecological functions to ensure the County will continue to meet the Washington State Department of Ecology no net loss criteria.

No Net Loss Evaluation

Pier and Dock Standards

Amendment Description: WCC 23.40.150(B) (Moorage Structures) (formerly titled Docks, Piers, and Mooring Buoys) contain revised dimensional standards, including overall square footage, for both freshwater and marine moorage (overwater) structures.

NNL Evaluation: The amended pier and dock standards in WCC 23.40.150(B), subsections 1 and 2, are extrapolated from the U.S. Army Corps of Engineers (Corps) Regional General Permit 6 and consistent with the Washington Department of Fish and Wildlife standards provided in the hydraulic code rules (WAC 220-660-140 and -380). These state and federal requirements contain provisions to allow overwater structures while ensuring implementation of impact reduction mechanisms to protect aquatic habitats. Furthermore, moorage structures are required to be constructed of materials that will not adversely affect water quality or aquatic plants or animals over the long term (WCC 23.40.150(C)).

While the proposed amendments to the Whatcom County SMP do not explicitly limit the number of future overwater structures, the proposed amendments minimize impacts by regulating overall footprint and dimensional standards, which are known to have a direct correlation to habitats and species. In general, the updated pier and dock standards allow for reduced square footage of overwater structures and a reduction in the total number of docks by prioritizing shared docks over single-user docks. The proposed amendments also avoid future impacts by prohibiting such moorage structures in key shoreline habitat areas (WCC 23.40.150(A)(6)).

Common-Line Setback

Amendment Description: To protect views of the shoreline from existing structures when new development is proposed, WCC 23.30.040 (Views and Aesthetics) of the updated SMP includes a new subsection (B) that now allows setbacks in Urban, Shoreline Residential and Rural environments to be modified pursuant to WCC 23.40.020(D) (Shoreline Bulk Provisions, Setbacks, Common-Line Setback for Single-Family Residences). That section (incorporated from former Appendix F, where it had only applied to nonconforming lots) allows for setbacks to be

reduced or increased, depending on how existing adjacent homes are situated, to provide the greatest view opportunities for both the existing and new development. Furthermore, WCC 23.30.040 (Views and Aesthetics) new subsection (L) precludes new uses or development from substantially obscuring shoreline views within shoreline view areas or from existing residences on adjacent property.

NNL Evaluation: When the use of a common-line setback is allowed, compliance with buffer width reduction and mitigation sequencing pursuant to WCC 23.30.010 (Ecological Protection) shall be required. WCC 23.30.010 (B) states that development, use, and activities within the shoreline jurisdiction shall avoid and minimize adverse impacts, and any unavoidable impacts shall be mitigated to meet no net loss of ecological function and ecosystem-wide processes pursuant to WAC 173-26-186, Governing Principles of the Guidelines. Furthermore, WCC 23.30.010 (C) has been added to specifically to add flexibility in buffer modification when approaches include “increased protection of shoreline ecological function and processes.” To minimize impacts to views from the water, a new subsection (C) was added to WCC 23.30.040 (Views and Aesthetics), that now allows the Director to require the planting of vegetation to mitigate the impacts.

Trail Location Standards

Amendment Description:

WCC 16.16.620 (Wetlands – Use and Modification), Subsection (H) (Recreation) has been amended to allow public trails to include viewing platforms to be closer than the outer 25% of the buffer “when necessary to provide wetland educational opportunities or for public health and safety,” and to be wider than the standard widths when necessary to meet ADA requirements. Corresponding amendments have also been made to WCC 16.16.720(G)(1) (Habitat Conservation Areas – Use and Modification).

NNL Evaluation: This allowance is permissible provided that all criteria in WCC 23.40.160(A)(6) (Recreation) are met; this amendment adopts by reference the requirements of WCC Chapter 16.16 (Critical Areas), which contains the standards for trails in critical areas. WCC 16.16.620(H) criteria for passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails, states the trail must minimize erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as wood recruitment and natural wildlife movement patterns. Such trails must be made of pervious material or elevated where feasible,

be designed to avoid removal of significant trees, and be constructed in a manner that minimizes disturbance of the buffer and associated critical areas.

Nonconforming Residential Development

Amendment Description: Standards for addressing the enlargement or expansion of single-family residences non-conforming to the shoreline buffer have been clarified in WCC 23.50.020 (Nonconforming Structures), subsection (F). Expansion of a nonconforming single-family structure may be approved when the expansion does not extend waterward of the existing primary structure's building footprint or the when the expansion is consistent with the constrained lot provisions in WCC 23.40.170.

NNL Evaluation: Approved expansion of single-family residences non-conforming to the shoreline buffer is not anticipated to have further impacts to the shoreline under the clarified standards provided in WCC 23.50.020 (F). Subsection (2) includes the following specific restrictions to ensure protection of existing ecological functions and mitigate for impacts. The expansion of nonconforming single-family residences or normal appurtenances greater than the constrained lot provisions of WCC 23.40.170 may be approved once during the life of the structure (100 years), with a total building footprint expansion of no more than 500 square feet. Additionally, the expansion must be landward or lateral of the existing footprint, shall occur on a previously impacted impervious surface, shall not occur waterward of the common line setback, and shall be accompanied by enhancement of an area equivalent to the expansion if the total building footprint increases by more than 250 square feet.

Buffer Reduction Mechanisms

Amendment Description: WCC 16.16.745 and 16.16.640 address buffer modifications within wetlands and habitat conservation areas, including buffer width averaging, buffer width reductions, and buffer width variances. Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. In such cases, the width of buffers may be averaged if it will improve the protection of functions and the applicant can demonstrate that all specified criteria are met. Buffer width reduction may be approved by the Director on a case-by-case basis, provided that the general standard for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied and the applicant demonstrates to the satisfaction of the Director that all of the specified criteria have been met. Standard buffer widths may be reduced more than 25% though a variance pursuant to WCC 16.16.273, provided that buffer averaging beyond the limits allowed by the variance is prohibited.

NNL Evaluation: The updated SMP adopts the CAO by reference, allowing for limited buffer reduction mechanisms provided specified criteria are met. For buffer averaging proposals, both WCC 16.16.745 (B)(2) and WCC 16.16.640 (B)(2) state the Director may require enhancement to the remaining buffer to ensure no net loss of ecological function, services, or value in the specified locations where a buffer has been reduced to achieve averaging. For buffer reduction proposals, both WCC 16.16.745 (C) and WCC 16.16.640 (C) allow the Director to require retention of existing native vegetation on other portions of the site to offset habitat loss from buffer reduction. Additionally, all buffer reduction impacts are required to be mitigated with the result being equal or greater protection of functions and values. In all circumstances where a substantial portion of the remaining buffer is degraded, buffer reduction plans shall include replanting with native vegetation in the degraded portions of the remaining buffer area to further ensure the no net loss standard is achieved.

Residential Accessory Structures

Amendment Description: WCC 16.16.720(G)(4), Accessory Uses, allows for water-oriented accessory structures associated with a residential use to be located in habitat conservation area buffers. Such structures would be limited in area to either 10 percent of the buffer area or 500 square feet, whichever is less. Additionally, no more than 20 percent of the linear length of shoreline could be occupied by such a structure. Per this section, such recreation-oriented applications would only be allowed when all reasonable measures have been taken to avoid adverse effects on species and habitats, including applying recommendations from the Washington Department of Fish and Wildlife, providing mitigation for all adverse impacts that cannot be avoided, and limiting the amount and degree of the alteration to the minimum needed to accomplish the project purpose. As required mitigation for the development, the shoreline must be planted with native vegetation extending at least 15 feet landward from the ordinary high water mark for at least 75 percent of the shoreline length.

NNL Evaluation: This allowance for small water-oriented residential accessory structures is intended to offer flexibility to waterfront landowners who would like to enhance their water enjoyment opportunities, typically for viewing or direct water access. To balance these direct impacts to HCA buffers, the County has proposed a planting requirement immediately adjacent to the shoreline. Native vegetation in these locations are known to provide a variety of positive ecological benefits including habitat, water quality, and vegetation functions. Assuming an average waterfront lot width of 100 feet, such a requirement would require a minimum planting area of 1,125 square feet (100 feet long x 15 feet wide x 0.75). This planting area represents over a 2:1 mitigation ratio to the maximum potential impact area of 500 square feet. Even a small lot width of 50 feet would result in approximately 562.5 square feet of native shoreline planting.

Implementation of this provision is expected to improve habitat, water quality, and vegetative conditions as vegetation matures over time.

Restoration Plan Implementation

The Shoreline Restoration Plan prepared as part of the Comprehensive SMP update in 2007 serves as a valuable resource for the County and its restoration partners to improve impaired ecological functions on the County's shorelines. The plan provides a framework for restoration on all County shorelines outside of incorporated areas.

The plan focuses on restoration projects that are reasonably likely to occur in the foreseeable future. This list has been updated during the periodic SMP update process². Potential restoration opportunities were identified based on recommendations in existing restoration planning documents, as well as input from County staff and restoration partners. The plan lists restoration and protection strategies, including opportunities for specific projects, for each of the County's watersheds.

The plan provides an implementation framework by identifying existing and ongoing plans and programs as well as potential restoration partners at the federal, state, regional, and local levels. The framework builds on local and regional planning coordination among these programs and partners, identifying mechanisms for implementation including development incentives for restoration; landowner outreach and engagement; maximizing mitigation outcomes; and monitoring the effectiveness of restoration actions.

Restoration projects which have been completed or are in progress since 2007 include:

- Removing groins and bulkheads along Birch Bay Drive (ongoing)
- Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Legoe Bay (ongoing)
- Lummi Island Quarry Restoration (ongoing)
- Bulkhead removal along Gooseberry Point (ongoing)
- Little Squalicum Creek mouth/estuary debris removal (ongoing)
- Debris removal and restoration of the armored shore at Mount Baker Plywood (ongoing)
- Point Roberts, Lighthouse Park structure removal (complete)
- Lummi View Drive Relocated (complete)

² Restoration Plan Addendum, March 31, 2020

- West Beach, Lummi Peninsula bulkhead removal (ongoing)

Cumulative Impacts

The Cumulative Impacts Analysis during the 2007 comprehensive SMP update evaluated the effects of foreseeable development under the SMP and demonstrated that the goals, policies, and regulations, combined with recommendations in the Shoreline Restoration Plan, would prevent degradation of ecological functions relative to baseline conditions.

The Cumulative Impacts Analysis determined that the proposed SMP provides a high level of protection to shoreline ecological functions. The report indicated that on its own, the proposed SMP, which includes the Shoreline Restoration Plan, is expected to protect and improve shorelines within Whatcom County while accommodating foreseeable future shoreline development, resulting in no net loss of shoreline ecological function.

Emphasis is placed on achieving no net loss of ecological function throughout the SMP, with all uses and modifications subject to general and/or specific standards addressing the preservation of water quality, water quantity, and habitat function in the shoreline, as well as basin-wide ecological processes. The following are some of the key features that protect and enhance shoreline ecological functions to ensure that the no net loss standard is met.

- Shoreline environment designations are assigned to shorelines to minimize use conflicts and designate appropriate areas for specific uses and modifications.
- The SMP contains general policies and regulations designed to provide the basis for achieving no net loss of shoreline ecological functions, such as mitigation sequencing, critical areas and flood hazard regulations, and vegetation conservation standards.
- The critical area protection standards ensure that vegetated buffers are retained on wetlands, fish and wildlife habitat conservation areas, and geologically hazardous areas.
- More shoreline uses and modifications are permitted in areas with higher levels of existing disturbance, and allowed uses and modifications are more limited in areas with lower levels of disturbance. Regulations prohibit uses that are incompatible with the existing land use and ecological conditions and emphasize appropriate location and design of various uses.
- The Shoreline Restoration Plan identifies a number of project-specific opportunities for restoration inside and outside of shoreline jurisdiction, and also identifies ongoing

county programs and activities, restoration partners, and recommended strategies and actions consistent with a variety of watershed-level planning efforts.

Conclusion

The proposed amendments to the SMP described above are not anticipated to have adverse effects on shoreline ecological functions at the planning level. Further, the updated SMP includes a variety of other amendments that are either insignificant when it comes to evaluating impacts to ecological functions or anticipated to strengthen the shoreline ecological protections provided by the SMP. Therefore, the proposed amendments to the SMP are not anticipated to result in a net loss of ecological functions when implemented in tandem with the Shoreline Restoration Plan. Monitoring key indicators is an effective way to ensure the standard of no net loss is being achieved. This can best be implemented by requiring the submission of short-term and long-term monitoring reports as part of permit approvals for development applications and maintaining consistency throughout the permitting process in evaluating mitigation sequencing. Additionally, ongoing efforts by state agencies to monitor land cover change detection, specifically work generated by the Washington Department of Fish and Wildlife, will continue to offer a valuable resource to ensure compliance with no net loss standards.

TECHNICAL MEMORANDUM



Date: March 31, 2020
To: Whatcom County
From: Dan Nickel, The Watershed Company
Jonathan Waggoner, Herrera Environmental
Project Name: Whatcom County SMP Periodic Update
Project Number: 181232

Subject: Whatcom County Shoreline Restoration Plan Addendum

The purpose of this memorandum is to update the previous Shoreline Restoration Plan adopted by Whatcom County in 2007. The Shoreline Restoration Plan is meant to help identify restoration or enhancement projects and areas of the shoreline for improvement. Generally, uses and developments within shorelines cannot always be fully mitigated, which may result in incremental and unavoidable degradation to the baseline conditions of the shoreline. The Restoration Plan aims to counter these incremental degradations by identifying areas and projects for enhancement and restoration which can improve degraded baseline conditions along the shoreline over time.

This addendum references projects listed in the Shoreline Restoration Plan containing enhancement and restoration project proposals and updates them based on information received by the County, agencies, tribes and stakeholder organizations (Table 1). New projects which have been completed or are planned for construction are included in Table 2.

Table 1. Project updates for restoration actions

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Drayton Harbor	The large platform and foundation could be removed to restore the beach and fringing marsh	No change		
Drayton Harbor	Remove bulkheads in two separate locations that protrude into the intertidal	No change		
Drayton Harbor	Remove dilapidated dock	No change		
Birch Bay	Birch Bay Drive & Pedestrian Facility Project – Remove groins and bulkheads along Birch Bay Drive to restore upper beach and backshore habitats	Under construction	Whatcom County	Phase I under construction. Completion expected in 2021. Will restore 7,500 linear feet of shoreline.

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Pt Whitehorn	Remove bulkheads along these bluffs, which are the sole sediment source for accretionary shoreforms and valuable habitat in Birch Bay and State Park reaches	No change		
Cherry Pt	Remove dumped debris from bluff face and beach	No change		
Conoco Phillips	Sediment would be excavated from landward of the berm and bypassed to the south side of the pier fill area in stages. This would free up impounded sediment to southern shores and create a saltmarsh or estuary in the backshore	No change		
Sandy Pt	Marsh Restoration – Reduce intertidal slope and impervious surfaces and create riparian buffer/dune habitat to aid with flood control issues in the basin. Portions of the undeveloped (filled) uplands could be restored to marsh	No change		
Lummi River Delta	Tidal Connectivity – Restoration opportunities include removing extensive dikes and tide gates across the Red River Delta to restore tidal inundation and greatly increase fish habitat	No change		
Lummi Island, Pt Migley	Remove Bulkheads – Bulkheads could be scaled back or moved landward where possible and picnic structures over what would be active beach should be removed	No change		
Lummi Island, Village Pt	Remove Structures – Remove relict structures in backshore/marsh environments with marsh restoration	No change		
Lummi Island, Village Pt	Remove pier, groin, debris – Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Legoe Bay would benefit the nearshore	In early design		Goal is to restore ~150 linear feet
Lummi Island, Village Pt	Remove derelict piles which are likely creosote	No change		
Lummi Island, Smugglers Cove	Lummi Island Quarry Restoration – The shore that is not in use could be restored through removal of fill and riparian restoration to resemble the rocky shore prior to mining operations	In early design	Northwest Straits Foundation	Goal is to restore ~600 linear feet
Eliza Island	Remove derelict piles which are likely creosote in two locations	No change		
Gooseberry Pt	Remove bulkheads	Ongoing	Lummi Tribe	Likely saving as mitigation – goal is to restore ~160 linear feet

Project Location / Identifier	Environmental component(s)	Status (2020)	Proponent	Notes
Gooseberry Pt	Remove bulkheads	No change		
Lummi Shore Rd	Beach monitoring – Conduct beach monitoring to ensure the beach nourishment is continued, as begun under the USACE-constructed revetment	Ongoing	Lummi Tribe	
Lummi Shore Rd	Remove derelict drift nets, debris, and other foreign material from the Lummi Shore Road beaches	No change		
Cliffside Community Beach	Remove abundant wood debris smothering nearshore sediments along the Cliffside community beach	Complete	WDOE	Study complete, removal not recommended
Squalicum Creek	Debris removal and exotic species removal and revegetation with native plants at Little Squalicum Creek mouth/estuary	Permits acquired	City of Bellingham	Funding sources still being sought
Mt Baker Plywood	Debris removal and restoration of the armored shore around the west side of the Mount Baker Plywood area would provide habitat improvements	Design in process	Port of Bellingham	Preliminary design near completion
Chuckanut Bay	Beach Nourishment	No change		
Pt Roberts, Boundary Bluff	Removal of rock bulkheads in the southern and central portion of the reach, where erosion does not appear to be substantial	No change		
Pt Roberts, Boundary Bluff	Remove abandoned pilings north of Lighthouse Park (including by the west end of Gulf Road)	No change		
Pt Roberts, Lighthouse Park	Remove the old telephone building and associated shore defense structures, this includes a soldier pile bulkhead and boulder and debris revetment	Complete	Whatcom County	250 linear feet restored
Pt Roberts, Lilly Pt	A row of houses/cabins with revetments cause bluff sediment impoundment; restore marine riparian vegetation	No change		
Pt Roberts, Lilly Pt	Remove old cannery – Old Cannery - Pilings, slag piles, and various debris such as concrete pieces could be cleaned up from the intertidal and backshore	No change		
Pt Roberts, Maple Beach	The Elm St outfall structure, short groin, and the old pilings could be at least partially removed to free up beach area and remove the foreign material	No change		

Table 2. Completed or planned projects not Included in the previous Shoreline Restoration Plan.

Project Location	Project Description	Status (2020)	Proponent	Notes
Lummi Peninsula	Lummi View Drive Relocated	Complete	Lummi Tribe	The southern end of Lummi View Drive was moved landward to avoid erosion
West Beach, Lummi Peninsula	Bulkhead Removal	In Process	Lummi Commercial Corp	2751 Haxton Way, Restoration design complete
Waypoint Park	Waypoint Park	Complete	City of Bellingham	New beach included in park
Boulevard Park Beach	Boulevard Park Beach	Complete	City of Bellingham	Phase 1 complete, phase 2 to be part of overwater walkway
Post Point Lagoon	Post Point Lagoon	Complete	City of Bellingham	Lagoon shoreline restoration
Chuckanut Bay Shorelands	Chuckanut Bay Shorelands	Complete	City of Bellingham	Beach restoration and fish passage improvements in Mud Bay

TO: Cliff Strong, Senior Planner – Whatcom County Planning & Development Services

FROM: Chad Yunge, Senior Shoreline Planner - Washington Department of Ecology

Date: October 29, 2021

Subject: **Shoreline Master Program Periodic Review - Determination of initial concurrence**

Sent via email to: cstrong@co.whatcom.wa.us; jcha461@ecy.wa.gov

Brief Description of Proposed Amendment

Whatcom County (County) has submitted Shoreline Master Program (SMP) amendments to the Washington Department of Ecology (Ecology) for an initial determination of concurrence to comply with periodic review requirements of RCW 90.58.080(4). The County has elected to utilize the optional joint review process for SMP amendments available per WAC 173-26-104; therefore Ecology is required under WAC 173-26-104(3)(b) to make an initial determination of consistency with applicable laws and rules. The County proposes amendments to bring the SMP into compliance with requirements of the Shoreline Management Act (Act) or State Rules that have been added or changed since the County's comprehensive SMP update. In addition, the County is proposing numerous locally-initiated amendments to its SMP, Critical Areas Ordinance, Comprehensive Plan, and its Permit Procedures Ordinance to address changing local circumstances, reorganization of county code structure, and to address implementation challenges that have occurred since the comprehensive SMP update completed in 2008.

In addition, Whatcom County has elected to combine the final review steps associated with a 2018 locally-initiated SMP (Resolution No. 16-039) and Zoning Code amendments related to short-term rentals. On April 3, 2018, Ecology conditionally approved the SMP amendments subject to four recommended changes. In response, the County has incorporated the proposed SMP changes, along with select Ecology recommended changes into this review and plans to adopt the zoning changes concurrently with final adoption of this SMP amendment. The County has also elected to incorporate another locally-initiated SMP amendment transmitted to Ecology in 2019 (Ordinance No. 19-057) addressing updated hazard tree provisions.

FINDINGS OF FACT

Need for amendment

The County's comprehensive update to their SMP went into effect in 2008, although numerous locally-initiated amendments have been completed since that time. These proposed amendments are needed to comply with the statutory deadline for a periodic review of the County's Shoreline Master Program pursuant to RCW 90.58.080(4). The County has identified that this periodic review will result in amendments to the SMP to address updates to the Act or implementing State Rules, changed local circumstances, new information, and improved data.

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SMP provisions to be changed by the amendment as proposed

Note that the County concurrently processed amendments to its Comprehensive Plan and Critical Areas Ordinance, along with the amendment of its SMP. However, not all of the changes are applicable to shoreline jurisdiction. As such, the following is a list of substantive changes that apply to this SMP amendment.

Whatcom County Comprehensive Plan Chapter Ten - Environment

Administration and Regulation

Policy 10B-8, which currently refers back to the SMP to constitute the “Shoreline Element” of the Comprehensive plan has been deleted. Alternatively, the county created a stand-alone shoreline chapter to relocate policies from the SMP into the Comprehensive Plan.

Climate Change

A new policy has been added as follows:

Policy 10D-11 – Protect ecological functions and ecosystem-wide processes of Marine Resource Lands and critical areas in anticipation of climate change impacts, including sea level rise.

Marine Resources Management

The Shoreline Management Program section of this chapter has been removed and relocated to the new shoreline chapter of the Comprehensive Plan.

Whatcom County Comprehensive Plan Chapter Eleven - Shorelines

This is a completely new chapter of the Comprehensive Plan that relocates portions of Chapter Ten – Environment (as described above). In addition, the new chapter relocates and modifies the following sections, or portions of these sections, of the SMP to constitute the “Shoreline Element” of the Comprehensive Plan:

WCC 23.10.030 – Governing Principles

- Minor non-substantive revisions are included to provide clarity to fit within the structure of the Comprehensive Plan

WCC 23.20 – Overall SMP Goals and Objectives

- Changes include minor non-substantive revisions to provide clarity and to fit within the structure of the Comprehensive Plan.
- WCC 23.20.080 – Archaeological, Historical and Cultural Resources has been amended to include the Washington Department of Archaeology and Historic Preservation (DAHP) definition of “Cultural Resource”.
- Two new goals were added to the new Cultural Resources subsection of this new Chapter consistent with an existing memorandum of understanding between the County and DAHP as follows:

Goal 11-3 – Consult with the Washington State Department of Archaeology and Historic Preservation (DAHP) and affected Native American tribes when developing local policies and regulations for identifying, protecting, and preserving cultural resources.

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Goal 11-4 – Where appropriate, restore unique resources that have cultural, archaeological, historic, educational, or scientific value or significance to further enhance the value of the shorelines.

- WCC 23.20.100 Restoration and Enhancement language in Goal 11-2 has been modified to include a reference to the Shore Friendly Program developed by the Washington Department of Fish and Wildlife (WDFW), Washington Department of Natural Resources (WDNR) and the United States Environmental Protection Agency (USEPA).

WCC 23.30 – Shoreline Jurisdiction and Areas Designations

- Minor and non-substantive changes are included to provide clarity and to fit the structure of the Comprehensive Plan.

WCC 23.40 – Shorelines of Statewide Significance

- Minor non-substantive changes are included to provide clarity and fit within the structure of the Comprehensive Plan.
- The reference to RCW 90.58.020 has been clarified to follow the preferential order of uses on shorelines of state-wide significance per WAC 173-26-181.

WCC 23.90 – General Policies and Regulations

- Minor and non-substantive changes are included to provide clarity and to fit this section into the structure of the Comprehensive Plan.
- WCC 23.90.060 – Vegetation Conservation. A list of important functions that shoreline vegetation provides has been deleted to simplify existing Vegetation Conservation language at WCC 23.90.060.A.1 into new Policy 11X-1.
- WCC 23.90.070 – Archaeological, Historic and Cultural Resources. New preamble language added to this section to establish applicability and state authority. The following policy has been added based on language of an existing memorandum of understanding with DAHP and the Lummi Nation:

Policy 11X-9: In reviewing development proposals, the County shall take, or cause project applicants to take, all required actions to:

- 1. Minimize the risk of disturbing cultural resources within Whatcom County shorelines.*
- 2. Due to the limited and irreplaceable nature of the resources(s), prevent the destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Tribes and the DAHP.*
- 3. Consult with professional archaeologists, DAHP, and affected Tribes before permitting or otherwise approving the use or development of shoreline areas containing cultural resources. This consultation shall be accomplished through the regulations and procedures provided in WCC Title 23.*
- 4. Consult with DAHP and affected Tribes and coordinate with project archaeologists to establish site and project-specific procedures for protection and management of cultural resources.*
- 5. Make informed specific land use decisions based upon information provided by DAHP and Tribes.*
- 6. Ensure the use of the best available information, technology, and techniques in identifying, protecting, preserving, and restoring cultural resources.*

- The following new policies have been added to address climate change and sea level rise:

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Policy 11AA-1 – Coordinate with Tribal, Federal, State, and local agencies to address issues related to climate change and sea level rise as related to shoreline management.

Policy 11AA-2 – Whatcom County should plan and prepare for the likely impacts of climate change on County-owned facilities, infrastructure, and natural resources and ensure that projects for major maintenance or replacement of utilities, roads, and other public infrastructure consider the impacts of sea level rise in the location, design, and operation of the projects.

Policy 11AA-3 – Whatcom County should strive to increase resident and business resiliency to the anticipated impacts of climate changes by implementing land use regulations based on best available science, such as sea level rise, changes in rainfall patterns, changes in flood volumes and frequencies, and changes in average and extreme temperatures.

Policy 11AA-4 – Habitat protection and restoration projects in shoreline jurisdiction should consider implications of sea level rise and other climate change impacts to promote resiliency of habitats and species. Those that promote climate change and sea level rise resiliency should be considered priority actions.

Policy 11AA-5 – Whatcom County should monitor the impacts of climate change on Whatcom County's shorelands, the shoreline master program's ability to adapt to sea level rise and other aspects of climate changes at least every periodic update, and revise the shoreline master program as needed. Whatcom County should periodically assess the best available sea level rise projections and other science related to climate change within shoreline jurisdiction and incorporate them into future program updates as relevant.

Policy 11AA-6 – Public infrastructure such as transportation systems, utilities, flood hazard control, and instream structures and essential public facilities in shoreline areas should be built in a manner that accounts for increased sea level rise and storm surge and flooding that may accompany it

Policy 11AA-7 – Whatcom County should evaluate opportunities to protect shoreline environments and infrastructure from the impacts of climate change, as necessary and feasible. Specifically, the County should maintain shoreline protection and erosion control by:

- Facilitating the installation and maintenance of native vegetation along appropriate areas of shoreline;*
- Revisiting development policies with the objective of providing additional shoreline buffer areas between developed areas and the shoreline; and*
- Only consider structural shoreline stabilization structures when alternative options are unavoidable.*

WCC 23.90 – General Policies and Regulations

- Minor and non-substantive changes are included to provide clarity and to fit this section into the format of the Comprehensive Plan.
- WCC 23.100.050 – Boating Facilities, Marinas and Launch Ramps. The following new policy was added regarding live-aboard vessels:

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Policy 11DD-13 – Live-aboards should be regulated so as to prevent adverse impacts to public health and safety.

- WCC 23.100.210 – Cherry Point Management Area (CPMA). The policies of this section have been overhauled based on draft amendments regulating fossil fuels by the Whatcom County Council including new subsections to Policy 11JJ-1 as follows:

b. Existing legal fossil fuel refineries should be allowed to continue and maintain their operations within limited expansions subject to environmental review, greenhouse gas emission mitigation, and conformance with the Shoreline Master Program and other applicable land use designation.

c. It is the policy of Whatcom County to limit the number of industrial piers at Cherry Point to the existing three piers in operation or approved as of January 1, 1998, taking into account the need to:

- *Act conservatively in land use matters at Cherry Point to prevent further harm to habitat important to the Cherry Point herring stock and Southern Resident Orcas;*
- *Optimally implement the Shoreline Master Program policy regarding shorelines of statewide significance per WCC 23.40;*
- *Encourage the continued County use of best available science;*
- *Support and remain consistent with the state Department of Natural Resources' withdrawal of Cherry Point tidelands and bedlands from the general leasing program and the species recovery goals of the Cherry Point Aquatic Reserve designation and Management Plan;*
- *Recognize federal actions upholding treaty rights;*
- *Protect traditional commercial and tribal fishing; and*
- *Prevent conflicts with vessel shipment operations of existing refineries that could lead to catastrophic oil or fuel spills.*

The following new policy has also been added:

Policy 11JJ-2 – Whatcom County should ensure that shoreline development applicants demonstrate consistency with the State of Washington Department of Natural Resources' Cherry Point Aquatic Reserve Management Plan.

The County deleted the existing requirement that review of new uses and development activities within the CPMA are limited to the use regulations specific to the CPMA in the SMP.

- WCC 23.100.130 – Moorage: Docks, Piers and Mooring Buoys. More detail has been added to Policy 11MM-4 related to ways to improve protections for salmon and forage fish habitats.
- WCC 23.100.150 – Residential. The County added reference to a community access requirement for new developments of less than four lots to Policy 11OO-9.
- WCC 23.100.200 – Utilities. New policy added as follows:

Policy 11TT-8 – Given the different scales of regional, local and accessory utilities and their potential impacts, the County may establish different regulations regarding each.

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Whatcom County Code Title 22 – Land Use and Development

In an effort to consolidate all of the County's permitting procedures into a single location, the County has relocated some of its administrative provisions from its SMP into Title 22 – Project Permits. Revisions to SMP specific changes in this title are as follows:

- WCC 22.07.020.B.8 – The cost thresholds for exempt review of freshwater dock construction have been updated for consistency with the current Washington Office of Financial Management (OFM).
- WCC 22.07.020.B.16 – Restoration of native kelp, eelgrass beds and native oyster populations has been added to the activities that qualify for exempt review as a fish habitat enhancement project.
- WCC 22.07.020.B.1 – The general cost threshold for exempt review has been amended for consistency with the current OFM standards.
- WCC 22.60.040.2, 22.05.160.3, 22.07.060.F – Filing procedures have been updated to reflect rule changes by Ecology in 2011.
- WCC 22.07.20.B.17 – A new exemption category has been added for review for retrofitting existing development to comply with the Americans with Disabilities Act (ADA).
- WCC 22.05.130.1.c – A 90-day review target has been added for Washington Department of Transportation (WSDOT) projects per a legislative amendment in 2015.
- WCC 22.05.020 Table 1, 22.05.160 – Appeal procedures have been updated for consistency with 2012 legislative changes.

Whatcom County Code Title 23 – Shoreline Management Program

The shoreline management program (SMP) has been substantially reformatted and reorganized, including relocation of all policy language into a new chapter of the Whatcom County Comprehensive Plan as detailed previously within this document. Title 23 now houses only the regulatory provisions of the County's SMP. Substantive changes to these regulations are summarized as follows:

WCC 23.05 Purpose and Intent (now referred to as General Provisions)

- The reference to Stipulated Judgment No. 93-2-02477 related to the development at Governor's Point has been deleted since the agreement has been extinguished by the all parties.
- The incorporation by reference of the Whatcom County Critical Areas Ordinance (CAO) has been amended to cite the most current update (currently under review).
- The effective date for application of the SMP has been updated for consistency with legislative changes made in 2010.

WCC 23.10 Administrative Procedures (now referred to as Administrative provisions)

- The process for review of use and development within the CPMA have been amended so that all applicable SMP policies and regulations now apply in addition to policies and regulations specific to this special area designation.
- The applicability of the SMP to lands under exclusive federal jurisdiction has been clarified in accordance with 2017 Ecology rule amendments.
- Statutory language from the SMA (RCW 90.58.350) has been added to clarify SMP applicability to areas subject to treaty rights.

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- The applicability of the SMP to remedial actions, boatyard improvements, select WSDOT projects, etc. have been added for consistency with Ecology rule amendments in 2017.
- The applicability of the SMP to the disposal of dredge material to a Dredged Material Management Program (DMMP) site has been added consistent with legislative amendments made in 2019.
- Enforcement provisions now include increased penalties for shoreline violations in the form of increased mitigation requirements.
- Authority to require a financial surety has been added to ensure compliance with conditions of approval when determined by the County.

WCC 23.20 Shoreline Jurisdiction and Area Designations (now referred to as Shoreline Jurisdiction and Environment Designations)

- A list of jurisdictional areas subject to the SMP has been added.
- The geomorphic floodway, as mapped by the County during its comprehensive SMP update is no longer being used to determine shoreline jurisdiction on the Nooksack and Sumas Rivers. In lieu of this, the County will now include the entire 100-year FEMA floodplain boundary as part of shoreline jurisdiction.
- The Official Shoreline Map has been updated to include the “H Street Wetlands” that include ponded areas that meet the size thresholds to be regulated as lakes under the SMA. The features were originally inventoried as part of the SMP Comprehensive Update in 2008 but for some reason were not included during that amendment.
- New standards to resolve errors of the Official Shoreline Map have been added.
- The CPMA is now listed as its own environment designation rather than applied as an overlay per the current SMP.

WCC 23.30 General Regulations

Ecological Protection

- A new provision allowing the buffer modification and alternative mitigation approaches in the CAO has been added.
- The conditional use permit requirement to use the alternative mitigation approaches in the CAO has been removed.

Water Quality and Quantity

- Additional detail has been added to the water quality and quantity regulations to reference the county stormwater regulations applicable to shoreline development.
- New language regulating stormwater and sewer outfalls has been added to the water quality and quantity regulations.

Views and Aesthetics

- The County can now require planting of vegetation to mitigate view impacts of new development from the water.
- “Retaining walls” are no longer limited to four-feet in height between the ordinary high water mark and structures.
- Where reductions in shoreline setbacks and buffers are allowed, view impacts must now be considered from shoreline view areas or from existing residences on adjacent properties.

Vegetation Management

- Vegetation removal for the purposes of establishing and maintaining view corridors are now regulated by the CAO as an activity allowed with notification.

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- The existing requirement that new development shall conform to natural contours and minimize disturbance has been modified to require the use of trails or stairs from parking areas on steep slopes if feasible. In addition, tiered foundations are no longer a requirement to meet this provision.

Cultural Resources

- This chapter has been completely rewritten and updated with input from the Lummi Nation Tribal Historic Preservation Office (LNTPO) and the Department of Archaeology and Historic Preservation (DAHP).

Public Access

- Cost considerations have been removed as a factor in considering whether or not public access is required.
- Public access will no longer be required if:
 - The subject property is physically separated from the water by an existing developed road or an additional parcel.
 - “Reasonable and safe” opportunities already exist within a quarter of a mile from the subject property.
 - The site is part of a larger development that has previously provided public access as part of the permitting process.
 - Utility developments through shoreline jurisdiction to serve developments outside of shoreline jurisdiction.
- Consideration of public access is no longer exempt for: dredging, forest practices, landfill and excavation, mining, private docks serving four or fewer dwelling units, instream structures, shoreline stabilization and ecological restoration projects.
- Larger scale public access planning is now referenced as a tool that could be developed in the future for application in the SMP rather than via a site-by-site analysis; however no such public access planning has been conducted as part of this SMP amendment.
- The priority for water-dependent uses and public access over maintenance of views from adjacent properties has been added per the Shoreline Management Guidelines.
- All location and design, and other standards for implementing the public access requirements have been removed from the SMP (former section 23.90.080.B.8 through 23.90.080.B.17).

WCC 23.40 Shoreline Use and Modification Regulations

Shoreline Bulk Provisions – Buffers, Setbacks, Height, Open Space and Impervious Surface Coverage

Agriculture

- New agricultural uses are allowed in the CPMA shoreline environment designations, however liquid manure storage facilities/spreading and animal feeding operations/confined animal feeding operations (AFOs/CAFOs) are prohibited.

Aquaculture

- Siting standards for aquaculture operations near national wildlife refuge lands have been deleted as they rely on outdated guidance from 1986.
- New standards related to commercial geoduck aquaculture have been added in response to 2011 Ecology rule changes.
- Application requirements now include a vegetation habitat survey with consultation from the Washington Department of Fish and Wildlife (WDFW). In addition, an assessment of aquatic species, including forage fish, and spawning and other lifecycle use of, or adjacent to the proposed aquaculture site is now required.

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- Aquaculture is an allowed use within the CPMA with exception of commercial net pens which are prohibited. Geoduck aquaculture requires a CUP.

Marinas and Launch Ramps (formerly Boating Facilities)

- Standards for live-aboard vessels within marinas are now included.
- This section has been clarified to apply to public or quasi-public boat ramps and not to private residential boat ramps which are prohibited in all shoreline environment designations.
- Launch ramps that are part of a marina now require a conditional use permit in the urban conservancy and conservancy shoreline environment designations
- Marinas and associated launch ramps are now prohibited with the resource shoreline environment designation.
- Marinas and associated launch ramps are prohibited in the CPMA environment designation. Public launch ramps are allowed.

Commercial

- Water-oriented commercial development is allowed within the CPMA environment designation. Non-water oriented commercial development requires a CUP.

Dredging and Dredge Material Disposal

- Dredging is now permitted to obtain fill for approved MTCA/CERCLA projects, and allowed as a CUP for other types of restoration projects.
- This section now clarifies that regular maintenance of approved barge landing sites shall not be considered dredging.
- Dredge disposal on shorelands, wetlands or a river's channel migration zone is only allowed for restoration or enhancement of shoreline ecological functions and processes through review of a CUP.
- This section clarifies that dredge disposal at an approved DMMP site no longer requires a shoreline permit consistent with legislative actions taken in 2019. As such, previous language related to the DMMP review process has been stricken.
- Dredging is prohibited for new development in the CPMA shoreline environment designation, but otherwise allowed through review of a CUP.

Fill and Excavation (formerly Landfill and Excavation)

- Language added to emphasize any necessary fill in shoreline jurisdiction must be located, designed and constructed to protect shoreline ecological functions, including channel migration.
- Fill and excavation waterward of the OHWM is no longer allowed for the following purposes:
 - Maintenance of lawfully established developments
 - Development of shoreline stabilization projects, flood control, and instream structures.
- Fill associated with the cleanup and disposal of contaminated sediments as part of an environmental cleanup plan is now allowed below the OHWM with a CUP.
- Fill for the purposes of creating land for residential development is prohibited.

Flood Hazard Reduction and Instream Structures (formerly Flood Control Works and Instream Structures)

- Flood hazard reduction standards from the SMP Guidelines [WAC 173-26-221(3)] have been added to this section.
- The use of revetments now only applies to public flood hazard reduction projects.
- The use of weirs or current deflectors are only permitted when necessary to protect public infrastructure.

Forest Practices

- The SMP no longer prohibits new road construction on marine or lake shores where slopes exceed 35 percent.

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- The current limitation on timber harvest along feeder bluffs and landslide hazard areas is no applicable.
- Timber harvest to convert forest land to other uses is allowed on shorelines of statewide significance to the minimum necessary to accommodate the change of use.
- Per 2017 Ecology rule changes, this section has been clarified that timber cutting alone does not represent “development” under the SMA and that only those forest practices that involve development require review via a shoreline permit.
- Forest practices are no longer prohibited within the urban, urban resort, urban conservancy or shoreline residential shoreline environment designations.
- Forest practices within shorelines of statewide significance now require a CUP.
- Forest practices within a conservancy shoreline environment designation no longer have to comply with critical area buffers/setbacks.
- The caveat that forest practices within a natural shoreline environment designation must be consistent with the purposes of such an SED have been removed. The CUP requirement remains.

Industrial and Port Development

- This section now applies to industrial and port developments within the CPMA.
- This section has been clarified to require consideration of public access for both water-oriented and non-water-oriented development.
- New siting criteria for marine rail systems has been added.
- The expansion of existing legal fossil fuel refinery operations and/or transshipment facilities are now only permitted in the Urban and Rural SEDs. A CUP is required in the Resource, Aquatic and the CPMA SEDs. Such expansions are prohibited in all other areas.
- New or expanded, existing legal renewable fuel refinery operations and/or transshipment facilities are now permitted only in the Urban and Rural SEDs. A CUP is required in the Resource, Aquatic and CPMA SEDs. These uses are prohibited in all other areas.

Cherry Point Management Area

- New standards for “Fuel Uses – Shoreline Permits and Requirements” has been included as a placeholder until the Whatcom County Council adopts final amendments related to fossil fuel development and expansion. Existing fossil fuel refinery/transshipment facilities may be expanded, and new or expanded renewable fuel refinery/transshipment facilities require review through a CUP within the CPMA.
- Liquid manure storage facilities, spreading of liquid manure and animal feeding operations are prohibited within the CPMA.
- New piers within the CPMA are now limited to those in operation as of January 1, 1998.
- Any fill or excavation waterward of the OHWM requires review of a CUP.

Land Division

- This is an entirely new section that was moved from the residential use sections of the existing SMP.
- All land divisions must be configured to avoid significant vegetation removal and shoreline modification when developed in the future.
- Clustering and other low impact development techniques to minimize physical and visual impacts on shorelines “may” now be required. The existing SMP uses the term “shall” be required.

Mining

- A prohibition on the use of siphon technologies for in-water mining activities per RCW 90.48 have been added to this section.

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- The requirement to demonstrate that mining must be dependent upon a shoreline location prior to authorization has been removed.
- The applicability of shoreline jurisdiction to lakes created by mining operations that exceed twenty-acres in size as been removed.
- Specific requirements for mining applications have been deleted and replaced with a general reference to requirements found in RCW 90.44 (Surface Mining) and RCW 77.55 (Construction Projects in State Waters).
- New standards for mining below the OHWM of rivers and streams has been added consistent with the SMP Guidelines.
- Specific standards for open pit mining within floodplain areas has been deleted. The includes requirements that such mining take place outside of channel migration zones, design requirements for mining ponds to eliminate fish stranding and eutrophication, the demonstration that channel avulsion or stream flow changes will not occur as a result of mining, a requirement that equipment be floodproofed, and a demonstration that mining will not have adverse impacts on fish resources, water quality, recreation resources or adversely impact a streams natural capacity to erode, shift, accrete, and/or flood.
- Mining in the CPMA requires a CUP.

Moorage Structures (Formerly Moorage, Docks, Piers and Mooring Buoys)

- Marine rail systems are now allowed when no other moorage structures exist and with minimal use of pilings. Marine rails are limited to 20-feet in length from the OHWM.
- The dimensional standards for new moorage structures has been substantially overhauled. For docks, the length is no longer capped at 40 to 60 feet but rather the minimum necessary to reach a maximum water depth of 5.5 feet below the OHWM.
- Ells are now allowed with a maximum width of six feet.
- Fingers are now allowed with a maximum width of 2 feet.
- All moorage structures now have a maximum overall surface area limitation based on whether the structure is for individual or shared use. This limitation can be exceeded only when necessary to reach specific depths.
- Floats are now required to have 30 to 50 percent functional grating depending on size.
- Marine docks must be located at least six feet above the bed at the landward end of the structure.
- Standards for the type and orientation of required grated decking have been added.
- A 10% or 48-square foot threshold for dock repairs now triggers the need to replace solid decking with grated decking within the area of the proposed repair.
- Riprapped or bulkheaded fills are now only allowed for public projects through review of a CUP.
- Pilings must now be spaced no closer than 20-feet.
- Float tubs must now be fully enclosed to prevent breakup of float materials to the water.
- Floatation components shall not be placed below required grated decking.
- New standards associated with piling replacement have been included.
- Moorage pilings are now addressed in the SMP and are limited to two for vessels that exceed the length of the float.
- Overhead wiring or plumbing on docks is prohibited.
- New maximum width requirements for landings, stairways, or steps are now capped at 4 to 6 feet depending on the number of dock users.
- New standards specific to marine docks have been added related to float anchoring, allowance of an access float limited to 6 by 10 feet to allow access during tidal cycles when the moorage

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float is perpendicular to the pier/ramp, limitation of floats above +5 MLLW and use of float stops to avoid grounding during low water conditions.

- Standards for mooring buoys have been updated to include a requirement to identify the location of the buoy anchor as part of the permit review, a requirement for a midline float to avoid anchor lines contacting the bedlands, specifics on the types of anchors allowed, requirements for minimum swing distances to other structures, and limitations on new mooring buoys in threatened or closed shellfish harvesting areas.
- Platform lifts are now specifically allowed in the SMP in lieu of a standard accessory float.
- Applicants must now demonstrate that alternative moorage, such as mooring bouys or a dock sized to accommodate a tender, are not adequate or feasible before a new individual dock can be authorized in freshwater. The requirement already exists within marine waters.
- Shared use dock standards have been clarified to allow multiple accessory structures depending on the number of users.

Residential

- The standards associated with single-family development on nonconforming lots has been overhauled and is now a new section within this chapter. Changes include the following:
 - The maximum 2,500 square foot building area no longer includes the entire area that will be disturbed to construct the residence and appurtenant developments. It now includes only the constructed developments including the house, sidewalks, driveway and other appurtenant developments.
 - The 2,500-square foot building area no longer includes lawn and landscaping. Now an additional 500-square feet of lawn and landscaping is allowed if located as far from the shoreline as feasible
 - This provision can now be utilized within alluvial fan hazard areas.
 - Prescriptive mitigation standards for buffer enhancement through this process have been removed and replaced with general standards that state that all areas outside of the approved building area shall be “optimized to provide the maximum shoreline ecological functions and ecosystem wide functions.”
 - “Accessory utilities” may be allowed within buffer areas according to applicable critical area provisions incorporated by reference into the SMP.
- Consideration of public access no longer applies to all multi-unit residential development. Instead, public access is required for only multi-family developments greater than 4 units. Specific standards for public access in this situation have also been added.

Restoration and Enhancement

- A reference to the SMP relief mechanism associated with select shoreline restoration projects has been added consistent with WAC 173-27-215.

Shoreline Stabilization

- WDFW’s Marine Shoreline Design Guidelines are not referenced for design of new shoreline stabilization.
- A conditional use permit is no longer required to consider new shoreline stabilization in support of non-water-dependent development, including single-family residences. The requirement that such stabilization be allowed only when erosion threatens reasonable use of the property has also been deleted.
- The requirement that publicly financed or subsidized shoreline stabilization provide appropriate public access has been revised for consistency with the SMP Guidelines.
- Shoreline stabilization in the form of revetments are now prohibited with the exception of water-dependent and public infrastructure projects which required review via a CUP.

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- The existing prohibition on use of gabion baskets has been lifted on all freshwater shorelines. Such forms of stabilization now require review via a CUP.
- The clarification that bluff stabilization walls also require a demonstration of need through a geotechnical report has been deleted.
- New standards for who can design new shoreline stabilization measures has been added.
- Clarifications have been added on other agency permit requirements/conditions, and the interaction between shoreline stabilization and shoreline restoration have been added.
- A prohibition on the stabilization of vacant lots without an existing primary structure, and use of waste materials has been added.
- A new threshold for when repair of an existing stabilization structure constitutes replacement has been added.
- Replacement of existing stabilization shall now be reviewed as new stabilization, however such structures can still be replaced with similar structures based on a demonstration of need through a geotechnical report. In addition, soft shoreline stabilization must be considered before in-kind replacement.

Signs

- Redundant standards with sign requirements found in the zoning ordinance have been removed with a reference to WCC Title 20- Zoning.

Utilities

- Clarification added that the utility regulations not apply to certain “accessory utilities” as defined in WCC 23.60.

WCC 23.50 Nonconforming Uses, Structures, and Lots (formerly Applicability and Nonconforming Uses)

Nonconforming Uses

- The ability to change from one nonconforming use to another nonconforming use is now prohibited.
- Nonconforming structures that are not maintained in a usable condition, or in situations where the OHWM has established landward of the structure, are now considered abandoned/derelict and can no longer be continued.
- The reconfiguration of existing nonconforming docks through review of a CUP has been removed.
- The permit process to replace a nonconforming structure containing a nonconforming use following unintentional damage/destruction must now be commenced within 12-months instead of 18-months.
- A new section addressing replacement of nonconforming structures that are intentionally demolished has been added.
- The expansion of nonconforming single-family residences no longer requires review through a CUP; however now such expansions cannot result in a total building area greater than 2,500 square feet. Nonconforming residences that are larger than the maximum 2,500 square foot building area, may seek a one-time expansion of the building footprint up to 500-square feet if additional demonstrations can be met.

WCC 23.60 Definitions

- Some definitions throughout this section have been eliminated if they are already defined in the CAO, as adopted by reference as part of the SMP, or are already defined and applicable through Title 20 – Zoning..

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- The definition of “Accessory development” has been deleted and now defaults to the zoning definition of the Zoning Ordinance.
- “Accessory structure” has been clarified to not include developments that share a common wall with an existing primary residential structure. Such developments are now considered part of the primary structure.
- The definition of “Agricultural activities” has been clarified to state that new structures or activities that bring a new area into agricultural use are not part of this definition.
- “Anadromous fish” definition has been removed since there is no reference to this term in the SMP.
- The definition of “Appurtenance” has been clarified to include on-site septic systems. The definition also clarifies that grading and fill waterward or the OHWM or within wetlands is not consistent with this definition.
- The definition of “Aquaculture” has been amended for consistency with the definition found in the SMP Guidelines.
- “Aquaculture practices” has been deleted as the term is not used within the body of the SMP.
- The terms “Archaeological object” and “Archaeological resource/site” have been removed and replaced as part of new definitions for “Cultural resource” and “Cultural resource site” per recommendations by DAHP and LNTPO.
- The term “Archaeology” has been removed as it is already defined in the Zoning ordinance.
- The definition of “Average grade level” has been rewritten for clarify.
- The definitions of “Backshore” and “Barrier Beach” have been rewritten to add more detail.
- The definition of “Bioengineered shoreline stabilization” has been replaced with a new definition for “Shoreline stabilization, soft treatment” and “Shoreline stabilization, bioengineered”.
- The terms “Boathouse”, “Boat ramp”, “Boat lift”, “Canopy”, “Dock”, “Ells”, “Gangway”, “Launch rail” and “Launch ramp”, “Moorage buoy”, “Moorage structure”, “Lift”, “Moorage pile or piling”, and “Pier”, “Recreational floats”. have been consolidated into the definition of “Moorage Structures”.
- The definition of “Bulkhead” has been modified to remove revetments and seawalls as examples of such structures.
- The definition of “Commercial development” has been modified to no longer include bed and breakfasts and short term rentals. These uses are now part of the amended definition of “Residential development”. The definition changes relate to a 2016 County Council action associated with short-term rentals. An SMP amendment was conditionally-approved but never adopted by County Council. Instead, the County elected to incorporate those changes into this amendment. Also included are new definitions for “Bed and breakfast”, “Short-term rentals”, and “Vacation Rental Unit” as part of the 2016 amendments.
- A definition for “Critical saltwater habitat” has been added.
- “Date of filing” is now defined consistent with Ecology rule changes made in 2017.
- New definitions for “Department” and “Department of Ecology” have been added.
- The definition of “Development” has been reworded and clarified to not include the dismantling or demolition of structures only.
- A new definition of “Director” replaces the term “Shoreline Administrator”.
- The definition of “Dredging” has been modified to no longer apply to regular maintenance of approved barge landing sites.
- “Drift sill” is now defined.
- The definition of “Emergency activities” has been revised to include more detail consistent with WAC 173-27-040.

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- The definition of “ Essential public facilities” now includes secure community transition facilities per RCW 71.09.020.
- The definition of “Fill” has been amended to include placement of material below the OHWM or within wetlands for consistency with the SMP Guidelines.
- The definition of “Float” has been expanded to include stand-alone structures for boat moorage, swimming and diving.
- New definitions have been added for “Fossil fuels”, Fossil Fuel Transshipment Facility”, “Fossil Fuel Refinery”, “Renewable biomass”, Renewable fuel”, “Renewable Fuel Refinery” and “Small Fossil or Renewable Fuel Storage and Distribution Facilities” pursuant to the Whatcom County Council’s pending draft fossil fuel zoning amendments.
- The terms “Forest Land” and “Forest Practices” have been removed as they are defined in Title 20- Zoning.
- The definition of “Geotechnical report or geotechnical analysis” has been replaced by “Geotechnical assessment” and now just refers to where it applies to select CAO provisions.
- “Gross floor area” has been removed as it is no longer used in the SMP.
- The definition of “Hazard tree” has been deleted with a reference to the CAO definition. This was originally proposed through a locally-initiated SMP amendment submitted to Ecology in 2019. The revision is now being incorporated into this SMP Periodic Review.
- The definition of “Height” has been expanded to clarify that antennas, chimneys, etc. are not subject to the definition unless obstruction of views from neighboring residences would result. The revised definition also clarifies that moorage structure heights be measured from OHWM.
- The definition of “Hydric soil” has been updated for consistency with the CAO.
- “Impervious surface” has been removed since it is defined by Title 20 – Zoning.
- The definition of “Industrial development” and “Port development” have been modified to exclude fossil or renewable fuel refineries or transshipment facilities per the Whatcom County Council’s draft fossil fuel amendments.
- The definition of “Lot” and Lot area or lot size” have been removed as they are already defined in Title 20- Zoning.
- The term “Major development” has been deleted as it is no longer used.
- Multi-family dwelling” and “Native vegetation” have been removed as it is defined in Title 20 – Zoning.
- The definition of “Nearshore habitat” has been replaced with a new definition of “Nearshore or nearshore zone”.
- The definition of “Nonconforming lot” eliminates the 20,000 square foot requirement and is now defined as any lot that contains less than the required width, depth or area due to subsequent changes in the SMP.
- The definitions of “Nonconforming use” and “Nonconforming structure” have been revised to be consistent with Ecology rule amendments in 2017.
- “Responsible party or party responsible” is now defined.
- The definition of “Revetment” has been rewritten and now has a more specific meaning than the previous, more general definition.
- New definitions related to shoreline stabilization have been added including “Shoreline stabilization, bioengineered”, “Shoreline stabilization, nonstructural”, “Shoreline stabilization, replacement”, “Shoreline stabilization, soft treatment”, “Shoreline stabilization, hard structure”, “Shoreline stabilization, hybrid structure”, “Shoreline stabilization, new” and “Shoreline stabilization, structural”.
- A definition for “Standing” is now included in the SMP.

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- The definition of “Substantial development” has been amended to reference exceptions to the SMA per legislative amendments made in 2016 and 2017.
- New definitions for “Accessory utilities”, “Local utilities”, and “Regional utilities” have been added.

Whatcom County Code Title 16.16 – Critical Areas Ordinance

Concurrent with the periodic review of its SMP, Whatcom County proposed changes to its Critical Areas Ordinance. Note that not all of the changes to WCC 16.16 are incorporated as part of the SMP, and as such, only the following substantive changes are applicable within shoreline jurisdiction:

WCC 16.16.225 General Regulations (formerly Regulated Activities)

- Alterations of Type III and IV wetlands with low habitat scores is now allowed for new commercial developments within urban growth areas.
- New language requiring consideration of ecological connectivity and habitat corridors be considered has been added.
- General language associated with mitigation sequencing has been expanded to include an order of preference associated with vegetation clearing avoidance.

WCC 16.16.235 Activities Allowed With Notification

- This section has been clarified that if any of these activities within shoreline jurisdiction required a shoreline permit or statement of exemption, as applicable.
- New standards associated with approved vegetation pruning and removal, as well as hazard tree removal and mitigation have been added.
- Standards for clearing and thinning for the purposes of view enhancement have been added and revised. The updated standards require consideration of pruning and limbing in areas dominated by non-native vegetation and now prohibit tree removal regardless of size.

WCC 16.16.250 Critical Areas Review Process (formerly Submittal requirements and Critical Areas Review Process)

- Review of critical areas within 300-feet of a proposed project is now required.

WCC 16.16.255 Critical Areas Assessment Reports

- Habitat Management Plans have been added to the list of elements required in a critical area site assessment when applicable.
- Critical area assessment reports shall now require the identification of impacts on habitat corridors, ecological connectivity, and habitat for salmon and forage fish.
- Greater detail has been added to what should be considered in an alternatives analysis.

WCC 16.16.260 General Mitigation Requirements

- New standards have been added to allow off-site and in-kind, and on-site and out-of-kind forms of mitigation within the same watershed in addition to the preferred form of mitigation which is on-site and in-kind.
- Mitigation monitoring reports are now a minimum of five-years with the ability of the Director to reduce down to three years following review of the year-three monitoring report.
- Mitigation monitoring is now at the discretion of the Director and no longer an outright requirement.

WCC 16.16.265 Critical Area Protection Measures

- Building setbacks from critical areas and/or buffers have been modified to allow reduction by the Director when a shorter distance is determined to accomplish the same intent to avoid conflict with tree branches and/or critical root zones of existing and/or planted trees within the

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buffer. Decks allowed within the setback areas now must be less than 30-inches in height, and utilities including wells, septic systems, and propane tanks up to 500 gallons are now allowed within the building setback.

- Standards for protection of existing trees during construction activities have been added.

WCC 16.16.320 Geologically Hazardous Areas – Protective Standards (formerly General Standards)

- Stormwater management requirements must use low impact development techniques unless demonstrated to be infeasible.

WCC 16.16.325 Landslide Hazard Areas - Use and Modifications (formerly Landslide Hazard Areas – Standards)

- The Director can now prescribe a minimum landslide hazard area setback in accordance with adopted building codes. This would be in addition to setbacks recommended by a qualified professional.

WCC 16.16.355 Erosion Hazard Areas – Use and Modifications (formerly Erosion Hazard Areas – Standards)

- The Director can now prescribe a minimum erosion hazard area setback in accordance with adopted building codes. This would be in addition to setbacks recommended by a qualified professional.

WCC 16.16.375 Geologically Hazardous Areas – Review and Reporting Requirements

- More detail has been added regarding what must be addressed in a geologic hazards assessment report.

WCC 16.16.430 Frequently Flood Areas – Review and Report Requirements

- The requirement for a critical areas assessment report can now be waived when both the Director and the Public Works Department determine that FEMA requirements for a habitat assessment are not triggered.

Article 6 Wetlands

- An alternatives analysis is now required to determine the least impactful construction or installation method when utility development is proposed within wetlands or their buffers.

Article 7 Fish & Wildlife Habitat Conservation Areas (HCAs)

- An alternatives analysis is now required to determine the least impactful construction or installation method when utility development is proposed within HCAs or their buffers.
- On-site septic systems are now allowed anywhere within a Fish and Wildlife Habitat Conservation Area (FWHCA) buffers. The existing SMP restricts OSS to the outer 50% of FWHCA buffers.
- Trail construction within HCAs and their buffers may now exceed the maximum widths if necessary to meet Americans with Disabilities Act requirements. Trails must also be designed to avoid the removal of significant trees. The limitation of trails to the outer 25% of buffers has been relaxed if the trail segment is necessary to provide educational opportunities.
- Residential accessory structures that are water-oriented may now be located within the HCA buffer up to 10% of the buffer area or 500-square feet whichever is less, and may occupy up to 20% of the linear length of shoreline. In order to be eligible for this buffer encroachment, 75% of the existing buffer must either be vegetated or planted with native species to a minimum depth of 15-feet landward of the OHWM.
- New buffer standards have been added specific to timber harvest proposals through a Conversion Option Harvest Plan (COHP) or a Class IV General Forest Practices Application (FPA). The system eliminates prescriptive buffer requirements for a flexible system based on a functional analysis and shore type.

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- Buffers have been increased on shoreline stream systems from 150-feet to 200-feet based on National Wildlife Federation v. FEMA (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472). Non shoreline streams located within shoreline jurisdiction have also increased from 100-feet to 150-feet if fish bearing.
- Mitigation standards now refer to the Army Corps of Engineers Regional General Permit 6 for projects with impacts to inland marine waters.
- Mitigation ratios are now set by the timing of installation. If installation occurs within one year, the ratio is 1:1. If installation occurs after one year, the ratio is 1.25:1. Mitigation ratios of after-the-fact review of project impacts may be up to 2:1.

Article 9 Definitions

- The definition of “Accessory structure” has been clarified to not include structures that share a common wall with a primary structure.
- The definition of “Clearing” has been modified to include cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting and burning.
- A new definition for “Critical facilities (essential facilities)” has been added.
- The definition of “Development” has been amended to match the definition found in the SMP.
- The definitions of “Floodplain” and “Floodway” have been updated to be consistent with the SMP Guidelines.
- The definition of “Low-intensity land use” and “Moderate intensity land use” have been modified for consistency with Ecology’s guidance related to wetlands.
- A new definition for “Retroactive permit” has been included.
- A new definition for “Special Flood Hazard Area (SFHA)” has been added.
- “Substantially developed surface” is now defined.
- The term “Technical administrator” has been deleted as it is now been replaced with “Director”.
- The definition of “Waters of the state” or “state waters” has been revised for consistency with RCW 90.48.020.

Public Comment

The County and Ecology held a joint local/state comment period on the proposed periodic review amendment following the procedures outlined in WAC 173-26-104. The comment period began on March 12, 2021 and continued through April 12, 2021. A joint public hearing before the Planning Commission was held virtually via Zoom on April 22, 2021.

A total of seventeen (17) written comments were received during the comment period and seven (7) verbal comments were made at the public hearing. Comments were received by Miller Environmental Services, RE Sources, Taylor Shellfish Farms, Building Industry Association of Whatcom County, Phillips 66, Western States Petroleum Association, Ashton Engineering, Whatcom County Marine Resource Committee, Petrogas and eight (8) members of the public.

The County compiled these comments and prepared a comment summary and response matrix included as Attachment 2. Also included in Attachment 2 are the county’s responses to public comments received during a 2018 locally-initiated SMP amendment that has now been incorporated within this periodic review amendment. The amendment was related to a change in the definition of “Hazard Tree” for consistency between the CAO and SMP.

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The summary demonstrates the County considered all comments, and as a result made several changes to the SMP amendment as referenced in Appendix B. Additional discussion is provided below on a subset of topics raised:

Non-applicable CAO Provisions

A bulk of the comments submitted were related to concerns with amendments to CAO provisions that do not apply within shoreline jurisdiction (reasonable use, administrative variance review, 4,000 square foot buffer impact allowance, regulation of Type O waters, etc.). These CAO sections are specifically barred from incorporation into shoreline jurisdiction and as such, these comments were not addressed by Ecology.

Sea Level Rise

Several commenters brought up the need for the County to address climate change, and specifically sea-level rise within its updated SMP. In response, the County identified several changes addressing sea level rise within the SMP at the policy level, but does not plan to add regulatory provisions addressing this topic within this amendment. In its response to comments, the County explains that they are a participating agency in a United States Geological Survey (USGS) Coastal Storm Modeling System (CoSMoS) study for the region. The CoSMoS study will help inform predicted sea level rise in coastal areas of Whatcom County as well as its impacts to flooding on the Nooksack River. Whatcom County plans to use this information to conduct a formal sea-level rise risk and vulnerability assessment prior to developing regulations and is currently seeking grant funds to conduct such a study.

Ecology agrees climate change and related effects are important topics. The agency is actively engaged at the statewide level in work being done on climate change and sea level rise. The Shoreline Management Act (SMA) and the Shoreline Master Program (SMP) Guidelines contain no explicit requirements for SMPs to address climate change or sea level rise. However, they require local jurisdictions to take into account scientific and technical information pertinent to shoreline management issues. The Guidelines require local governments use “the most current, accurate and complete scientific and technical information available” [WAC 173-26-201(2)(a)]. The Guidelines also encourage local governments to consult Ecology’s guidance for applicable new information on emerging topics such as sea level rise [WAC 173-26-090(1)].¹

Ecology finds addressing these topics within the community, and more specifically in a local SMP, is currently left to the discretion of each city and county. Nonetheless, Ecology is seeing increased interest in discussing these issues. Some communities have chosen to address these issues through their comprehensive plan or through other regulatory codes, such as flood hazard ordinances. In most cases, the addition of climate change policies and regulations to a shoreline master program are a result of a community-wide effort, considering the entire geography of the place, and not limited to the comparatively narrow shoreline jurisdictional area. This comprehensive approach has led to more fully integrated responses to these risks within and outside of shoreline jurisdiction in those communities.

Ecology finds that the County has considered the comments related to climate change and sea level rise and has chosen to postpone making regulatory changes while technical studies are still being completed. SMP policies have been included within the SMP within this amendment and establish a firm framework in which future regulations will implement.

¹ See SMP Handbook Appendix A <https://apps.ecology.wa.gov/publications/parts/1106010part19.pdf>

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Riparian Buffers

Numerous commenters expressed concerns that the County's riparian buffers should be increased to be consistent with recent guidance published by the Washington State Department of Fish and Wildlife (WDFW). The WDFW riparian ecosystem management recommendations prescribe that buffers should be based on the 200-year Site Potential Tree Height (SPTH).

The current riparian buffer provisions of the SMP were adopted during the County's Comprehensive SMP Update after extensive public review and comment, supported by a technical review committee and Shoreline Inventory and Characterization. Currently, habitat conservation area buffers apply a prescriptive 150-foot buffer to all shoreline streams and a 50 to 100-foot buffer, based on fish presence, for all non-shoreline streams that flow through shoreline jurisdiction. These buffers presume the presence of a dense vegetated community adequate to protect the ecological functions and values at the time of the proposed activity. In situations where existing buffer areas lack adequate vegetation, the County has the authority to increase the standard buffer or require buffer enhancement. Buffers in Whatcom County are measured from the OHWM, however where a channel migration zone (CMZ) is identified, the buffers are applied from the CMZ.

Through this amendment, the County has amended its buffer scheme for consistency with the decision in *National Wildlife Federation v. FEMA* (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472). The County has also adopted the Washington Department of Natural Resources stream typing system, and will now apply 200-foot buffers for all shoreline streams, 150-foot buffers for all other fish-bearing streams, and maintain the 50-foot buffer requirement for all non-fish-bearing streams flowing through shoreline jurisdiction. Whatcom County has also incorporated the entire 100-year floodplain into shoreline jurisdiction based on recently updated mapping completed by FEMA.

In its response to comments, the County points out that its amended buffers are overall consistent with WDFW's riparian guidance as applied in Whatcom County. The County's responses were completed while WDFW's guidance was still in draft form, and based on that version, the County concluded that their proposed 200-foot buffers on shoreline streams were just under WDFW's recommendation at 208-feet.

Ecology finds that the County considered these comments but made no changes at the time of this initial determination. The County's revised approach to protecting riparian buffers increases protections already in place and will achieve no net loss of shoreline ecological functions consistent with the SMA and SMP guidelines.

INITIAL DETERMINATION

Ecology is required to review all SMPs to ensure consistency with the Shoreline Management Act (SMA) and implementing rules including WAC 173-26, State Master Program Approval/Amendment Procedures and Master Program Guidelines. WAC 173-26-186(11) specifies that Ecology "shall insure that the state's interest in shorelines is protected, including compliance with the policy and provisions of RCW 90.58.020."

Based on review of the proposed amendments to the SMP for consistency with applicable SMP Guidelines requirements and the Shoreline Management Act, and consideration of supporting materials, including public and agency comments in the record submitted by the County, Ecology has determined

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that the proposed amendments, subject to Ecology's required and recommended changes (itemized in Attachment 1), are consistent with the policy standards of RCW 90.58.020 and RCW 90.58.090 and the applicable SMP guidelines (WAC 173-26-171 through 251 and .020 definitions).

Next Steps

- Consider the changes recommended by Ecology as required and recommended to resolve the issues identified within Attachment 1. Please let me know if you would like to discuss alternative language or different approaches for resolving these issues.
- If these issues are resolved prior to local adoption, we anticipate being able to approve your SMP Periodic Review amendment "as submitted" promptly after formal submittal is provided consistent with WAC 173-26-110.

Attachment 1: Whatcom County – Initial Ecology Required and Recommended Changes

The changes in **red are required** for consistency with the SMA (RCW 90.58) and the SMP Guidelines (WAC 173-26, Part III). Changes in **blue are recommended** and consistent with SMA (RCW 90.58) policy and the SMP Guidelines (WAC 173-26, Part III). Note that all references to SMP Provisions are based on the proposed SMP numbering and naming conventions.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Rec-1	23.05.040.E.2.b	Conditions of approval for compliance with <u>this</u> Title shall be added to such permit. The conditions of approval shall be enforced with the provisions of this Title <u>Title</u> .23.10.160 Violations <u>Violations</u> , Enforcement and Penalties <u>Penalties</u> .	Recommended Change – Scrivener’s errors.	Done.
Req-1	23.05.065.A – Critical Areas	The Whatcom County critical areas regulations (CAO), WCC Chapter 16.16 (ordinance No. 2019-013 dated February 12, 2019), are hereby adopted in whole as a part of this program, except that the provisions of WCC 16.16.270 (Reasonable Use Exceptions), 16.16.275 (Nonconforming Uses, Structures, and Lots), and 16.16.285 (Penalties and Enforcement) <u>and as specifically excluded elsewhere within this Title</u> , shall not apply within shoreline jurisdiction. All references to the critical areas ordinance (CAO), WCC Chapter 16.16, are for this specific version.	Required Change – Whatcom County is concurrently updating its CAO regulations along with this Shoreline Master Program (SMP) amendment. The final adopting ordinance is required in the provision once known. The added language clarifies that this provision does not represent an exhaustive list of CAO provisions that do not apply within the context of the SMP. There are numerous other sections of the CAO that conflict with statutory and rule requirements related to shoreline permit processing such as 16.16.230 (Activities Allowed without Notification), 16.16.235 (Activities Allowed with Notification) and 16.16.275 (Variances). These sections contain language either requiring SMP review or excluding their applicability within shoreline jurisdiction.	Done.
Req-2	23.10.190.B – Amendments	All regulatory elements of this Program shall be considered a part of the County’s development regulations. Certain non-regulatory elements of this master program, including but not limited to the Shoreline Restoration Plan or administrative procedures (WCC Title 22), may be updated and amended at any time without requiring a formal master program amendment. <u>Future changes to WCC Title 22 shall remain consistent with the Shoreline Management Act and associated rules, specifically RCW 90.58.140, 90.58.143, 90.58.210, 90.58.220 and Chapter 173-27 WAC.</u>	Required Change – This change clarifies that while administrative provisions can be codified within a local ordinance separate from the SMP, such changes shall remain consistent with the Shoreline Management Act (SMA) and applicable rules (See SMP Guidelines at WAC 173-26-191(2)(a)(iii)(C).	Done.
Req-3	23.20.010.B – Shoreline Jurisdiction	The shoreline master program jurisdiction applies to all shorelines of the state and their associated shorelands. This includes: 4. Floodways and <u>the entire 100-year contiguous</u> floodplain areas landward two hundred feet from such floodways ; and 9. Associated palustrine wetlands that extend greater than two hundred feet landward of the OHWM of the shoreline: the jurisdictional boundary shall extend to the OHWM <u>delineated edge</u> of the wetland.	Required Change – Whatcom County has removed the previously adopted “geomorphic floodplain” on the Official Shoreline Map to determine jurisdiction for the Nooksack and Sumas Rivers and has elected to set its jurisdiction as the extent of the 100-year floodplain recently remapped by FEMA. This change is necessary for consistency with the map change. Required Change – Shoreline associated wetlands are not limited to palustrine wetlands for the purposes of determining shoreline jurisdiction. Also, the latera extent of wetlands is not always consistent with the OHWM of the primary waterbody. As such, these changes are necessary for consistency with the definition of “Shorelands” found in RCW 90.58.030(2)(f).	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Req-4	23.20.020.H – Official Shoreline Map	All shorelines east of the Mount Baker National Forest western boundary are designated natural or conservancy unless there are federal projects on federal lands.	Required Change – This change restores existing language and The Official Shoreline Map does not include the eastern portions of the county, and thus a Conservancy designation would be assigned as a default pursuant to the SMP Guidelines at WAC 173-26-211(2)(e).	Done.
Req-5	23.20.020.I – Official Shoreline Map	All areas within shorelines that are not mapped and/or designated and are not directly adjacent to other shoreline designated areas are automatically assigned a conservancy designation. Within urban growth areas, such shorelines shall be automatically assigned an urban conservancy designation until such time that the shoreline environment can be re-designated through a formal amendment.	Required Change – This change restores existing language by removing a proviso that is not applicable to unmapped and/or designated shorelines per WAC 173-26-211(2)(e).	Done.
Req-6	Official Shoreline Map	Note on jurisdiction no longer accurate		Done. Changed to language of 23.20.020(B) and added “floodplain” to both.
Req-7	23.20.040.2 – Mapping Errors	In the event that a jurisdictional area, including associated wetlands, is not mapped, it will automatically be assigned a “resource,” “conservancy,” or “urban conservancy” designation depending on its location. If outside a UGA and adjacent to an existing “resource” designation, it shall be “resource,” if adjacent to “conservancy,” it shall be “conservancy. If inside of a UGA or LAMIRD is shall be “urban conservancy.” Such designation will apply until a master program amendment is approved that assigns the appropriate designation to the subject area.	Required Change – The SMP Guidelines require that unmapped and/or undesignated shorelines automatically be assigned a Conservancy or Urban Conservancy environment designation until a subsequent SMP amendment can be approved (WAC 173-26-211(2)(e). This is already covered by the SMP at WCC 23.20.020.I. In situations where the lateral extent of shoreline jurisdiction is not depicted on The Official Shoreline Map, the environment designation of the adjacent mapped portions of the shoreline would extend to the outward edge of shoreline jurisdiction as determined on a case-by-case basis per WCC 23.20.020.B. For example, the map assigns a Conservancy designation to a particular reach of river but does not illustrate associated wetlands on the property. The Conservancy designation would apply to the delineated wetland edge beyond the area illustrated on the map.	Done.
Rec-2	23.30.010 – Ecological Protection	Ecological protection of shoreline environments shall be achieved through compliance <u>with the applicable provisions of</u> WCC Chapter 16.16 (Critical Areas) and (B) and (C) of this subsection	Recommended Change – This change clarifies that that not all of WCC 16.16 is applicable within the SMP.	Done.
Req-8	23.30.010.C – Ecological Protection	To provide for flexibility in the administration of the ecological protection provisions of this program, buffer modification and alternative mitigation approaches as provided for in WCC 16.16 may be approved within shorelines where such approaches provide increased protection of shoreline ecological functions and processes over the standard provisions of this program and are scientifically supported. <u>Use of 16.16.261 (Alternative Mitigation Plans) and 16.16.262 (Watershed-Based Management Plans) within shoreline jurisdiction shall require review of a Conditional Use Permit.</u>	Required Change – This change maintains the existing requirement for a CUP for use of select alternative mitigation approaches outlined within the CAO. This change is necessary due to the fact that the impacts from such future proposals using these provisions cannot be reasonably identified at the time of the amendment consistent with the SMP Guidelines at 173-26-201(3)(d)(i)(E)(iii). The CUP requirement maintains the flexibility sought by the proposed language without prohibiting the use of these CAO provisions.	Done.
Rec-3	23.30.030.B – Views and Aesthetics	To protect views of the shoreline from existing structures, setbacks may be modified pursuant to WCC 23.409.020(D) (Shoreline Bulk Provisions, Setbacks).	Recommended Change – Scrivener’s error at code citation.	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Rec-4	23.30.030.I – Views and Aesthetics	Fences, walls other than retaining walls , hedges, and other similar accessory structures, excluding those associated with agricultural uses, <u>and retaining walls necessary to protect existing primary structures from erosion, landslides or other geologic hazards</u> , shall be limited to four feet in height between the ordinary high water mark and structures, and within shoreline view areas as defined in WCC Chapter 23.60 (Definitions); provided, that, within shoreline view areas, the Director may approve a greater height where a fence or other features is parallel to the right-of-way and does not extend above a line of sight between the ordinary high water mark and a point three and one half feet above the centerline of the road.	Recommended Change – This change clarifies the intent of Whatcom County Planning & Development Services Staff in Scoping Document Item 17e to allow for increased walls in situations where structural mitigation in the form of a retaining wall is the appropriate solution to stabilize an existing primary structure subject to unforeseen hazards. The language as amended provides no context and is vague as to what the difference is between a retaining wall and a wall.	Done.
Rec-5	23.30.40.2 – Vegetation Management	Vegetation management within the shoreline buffer shall adhere to the <u>applicable</u> regulations of WCC Chapter 16.16.(Critical Areas)...	Recommended Change – This change clarifies that that not all of WCC 16.16 is applicable within the SMP.	Done
Rec-6	23.30.040.2 – Vegetation Management	Shoreline development shall conform to natural contours and minimize disturbance to soils and native vegetation as feasible. Feasible shall include incorporation of trails or stairs from parking areas on steep slopes, and other design elements to lessen the need to alter natural contours and minimize soils and native vegetation disturbance. <u>Tiered</u> foundations shall <u>be tiered</u> incorporate with earth retention <u>incorporated</u> into the structural design.	Recommended Change – This change maintains the existing requirement that tiered foundations be utilized to meet the objectives of this provision.	Done.
Req-9	23.30.060.A.2 – Public Access	The parcel is separated from the water by an existing developed road or an additional parcel that serves to create a distinct break in connectivity to the shoreline.	Required Change – This change deletes this new exception to consideration of public access as it is overly prescriptive and inconsistent with the SMP Guidelines at WAC 173-26-221(4). Direct connectivity is not a requirement to accomplish proportionate public access. Public access includes the ability of the general public to reach, touch and enjoy the water's edge, travel on the waters of the state, <u>and to view the water from adjacent locations [WAC 173-26-211(4)(a)]</u> . Visual access to the shoreline is not necessarily precluded due to the presence of a developed road or additional parcel between the subject development and the shoreline.	Done.
Req-10	23.30.060.A.3 – Public Access	Other reasonable and safe opportunities for public access to the shoreline are located within one quarter mile of the proposed development site.	Required Change – This change deletes this new exception to consideration of public access as it is inconsistent with the SMP Guidelines at WAC 173-26-221(4). Increased development within shoreline areas can provide a nexus for the need for increased locations and forms of public access proportionate to such impacts.	Done.
Req-11	23.60.060.A.4 – Public Access	<u>The proposed development has already been considered as</u> site is part of a larger development project that has previously provided public access as part of the development permitting process.	Required Change – This change is necessary to ensure consistency with the SMP Guidelines at WAC 173-26-221(4) and clarifies the applicability of this exemption only if it had previously been analyzed through a broader development review such as a Planned Unit Development or other similar process.	Done.
Req-12	23.30.060.A.9 – Public Access	The proposal consists solely of a new or expanded utility crossing through shoreline jurisdiction serving development located outside shoreline jurisdiction, <u>provided that no adverse impacts to existing public access result.</u>	Required Change – Utility development is not specifically exempted from the requirement to consider public access in the SMP Guidelines. The proposed change modifies this new exemption to require public access considerations if impacts to existing forms of public access provide such a nexus.	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Req-13	23.30.060.A – Public Access	<p><u>Prior to deciding public access is not required pursuant to 23.60.060.A.above, the county must determine that all reasonable alternatives have been exhausted; including but not limited to:</u></p> <ol style="list-style-type: none"> <u>1. Regulating access by such means as maintaining a gate and/or limiting hours of use;</u> <u>2. Designing separation of uses and activities (e.g., fences, terracing, use of one way glazing, hedges, landscaping, etc.); and</u> <u>3. Providing for access at a site geographically separated from the proposal such as a street end, vista, tideland or trail system.</u> 	Required Change – This additional language added to the end of 23.60.060.A restores existing language proposed for deletion. The change is necessary for consistency with the SMP Guidelines at 173-26-221(4)(d)(B) which requires consideration of alternative methods of providing access when potential conflicts are identified with traditional forms of access.	Done.
Req-14	23.30.060 – Public Access	<p><u>I. Public access shall incorporate the following location and design criteria:</u></p> <ol style="list-style-type: none"> <u>1. Where open space is provided along the shoreline, and public access can be provided in a manner that will not adversely impact shoreline ecological functions and/or processes, a public pedestrian access walkway parallel to the ordinary high water mark of the property is preferred. The walkway shall be buffered from sensitive ecological features and provide limited and controlled access to sensitive features and the water's edge where appropriate. Fencing may be provided to control damage to plants and other sensitive ecological features and where appropriate. Trails shall be constructed of permeable materials and limited to five feet in width to reduce impacts to ecologically sensitive resources.</u> <u>2. Public access shall be located adjacent to other public areas, accesses and connecting trails, connected to the nearest public street; and include provisions for differently-abled persons where feasible.</u> <u>3. Where views of the water or shoreline are available and physical access to the water's edge is not present or appropriate, a public viewing area shall be provided.</u> <u>4. Design shall minimize intrusions on privacy by avoiding locations adjacent to windows and/or outdoor private open spaces or by screening or other separation techniques.</u> <u>5. Design shall provide for the safety of users, including the control of offensive conduct through public visibility of the public access area, or through provisions for oversight. The administrator may authorize a public access to be temporarily closed in order to develop a program to address offensive conduct. If offensive conduct cannot be reasonably controlled, alternative facilities may be approved through a permit revision.</u> <u>6. Public amenities appropriate to the use of a public access area such as benches, picnic tables and sufficient public parking to serve the users shall be provided.</u> 	Required Change – This change restores existing standards necessary for meaningful implementation of the public access requirements as required by the SMP Guidelines at WAC 173-26-222(4)(d)(iii).	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
		<p>7. <u>Commercial developments that attract a substantial number of persons and developments by government/public entities may be required to provide public restrooms, facilities for disposal of animal waste and other appropriate public facilities.</u></p> <p>8. <u>The minimum width of public access easements shall be 10 feet, unless the administrator determines that undue hardship would result. In such cases, easement widths may be reduced only to the extent necessary to relieve the hardship.</u></p> <p>9. <u>The requirement for public access on a specific site may be fulfilled by:</u> a. <u>Participation in a public access plan incorporated in the program; or</u> b. <u>Provision of facilities specified in a permit approval.</u></p> <p>10. <u>Required public access sites shall be fully developed and available for public use at the time of occupancy of the use or activity or in accordance with other provisions for guaranteeing installation through a monetary performance assurance.</u></p> <p>11. <u>Public access facilities shall be maintained over the life of the use or development. Future actions by successors in interest or other parties shall not diminish the usefulness or value of required public access areas and associated improvements.</u></p> <p>12. <u>Public access provisions shall run with the land and be recorded via a legal instrument such as an easement, or as a dedication on the face of a plat or short plat. Such legal instruments shall be recorded with the county auditor's office prior to the time of building permit approval, occupancy or plat recordation, whichever comes first.</u></p> <p>13. <u>Maintenance of the public access facility shall be the responsibility of the owner unless otherwise accepted by a public or nonprofit agency through a formal agreement recorded with the county auditor's office.</u></p> <p>14. <u>Public access facilities shall be available to the public 24 hours per day unless specific exceptions are granted though the shoreline permit process subject to the provisions of subsection (B)(1) of this section.</u></p> <p>15. <u>The standard state-approved logo or other approved signs that indicate the public's right of access and hours of access shall be installed and maintained by the owner. Such signs shall be posted in conspicuous locations at public access sites.</u></p> <p>16. <u>Incentives for public access improvements such as density or bulk and dimensional bonuses shall be considered through applicable provisions of zoning and subdivision regulations.</u></p>		
Rec-7	Table 1 – Shoreline Use by Environment	Add the following general footnote: <u>In the event that there is a conflict between the use(s) identified in Table 1 above and the applicable written policies or</u>	Recommended Change – This change restores an existing footnote that prescribes a solution when the table conflicts with the written text. Due to the	Not done. This language is already

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
	Designation	<u>regulations of this Program, the text within the policies and regulations shall prevail.</u>	difficulty in capturing all of the detail of regulatory text within a matrix such as Table 1, the footnote provides clarity in the event a conflict is identified during implementation.	included in 2.40.010(B).
Rec-8	23.40.020.D.2 – Common Line Setback for Single-Family Residences	Common-Line Setback for Single-Family Residences. For the purpose of accommodating views <u>to be adequate and similar, but not necessarily equivalent,</u> for new residences while protecting predominant shoreline views of the water from legally existing primary residences in developed residential areas, the shoreline buffer (setback) may be modified for primary residential structures in the Urban, Shoreline Residential, and Rural environments (only), consistent with the following. The presence of nearby shacks, sheds, or dilapidated structures does not constitute the existence of a residence, nor can such structures be used to determine a common-line setback.	Recommended Change – This change restores existing language that clarifies that the common-line setback provisions do not guarantee the exact same view as existing residences adjacent to a development site. This is reflected in the standards that follow at 23.40.020.2.a through 23.40.020.2.d that limit reductions in this scenario to 25% of the standard buffers per WCC 16.16 or 50-feet from the OHWM, whichever is greater.	Done.
Req-15	23.40.020.D.2.a – Common Line Setback for Single-Family Residences	<p>a. Where there are legally established single-family residential primary structures within ±50 feet on both sides of the proposed residence, the setback shall be determined as the greater of either:</p> <ol style="list-style-type: none"> A common line drawn between the nearest corners of the foundation closest to the sideyard property line of the proposed residence to each adjacent residence, or A common line calculated by the average of both adjacent residences' existing setbacks. <p>b. Where there is a legally established single family residential primary structure within ±50 feet only one of the proposed residence, the common line setback shall be determined as the greater of either:</p> <ol style="list-style-type: none"> A common line drawn between the nearest corner of the foundation closest to the sideyard property line of the proposed residence to the adjacent residence and the nearest point of the standard buffer on the adjacent vacant lot, or A common line calculated by the average of the adjacent residence's setback and the standard buffer for the adjacent vacant lot. 	Required Change – This change restores the existing language to apply the common-line setback provisions only to existing structures within 50-feet of a proposed residence. The amendment record contains no justification to extend this distance to 150-feet, which is most cases is two to three times the width of most existing lots where view these provisions would apply. The No Net Loss analysis related to this change does not take into consideration the increase in applicability if these setback reductions county-wide by increasing the distance from 50-feet to 100-feet.	Done.
Req-16	23.40.020.D.2.d – Common Line Setback for Single-Family Residences	In no case shall development be located waterward of the common line setback or a minimum of 50 feet from the ordinary high water mark, unless approved to be closer as part of a constrained lot review WCC 23.40.170(c) (Residential)	<p>Required Change – This change clarifies the appropriate point of measurement of buffers/setbacks under the SMA which is ordinary high water mark.</p> <p>Required Change – This change is necessary for consistency with the referenced constrained lot provisions found at WCC 23.40.170.c.4. This section states that consideration shall be given to view impacts in accordance with the common-line setback standards of 23.40.020.d.2. The change eliminates an endless loop to where the two provisions continue to refer to one another without resolve, and clarifies that new residential development should not be allowed waterward of existing development through either process.</p>	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)		RATIONALE	W/C Response
Req-	23.40.020.D.2 – Common Line Setback for Single-Family Residences	<u>e. The lot is not subject to landslide hazard areas, or riverine or coastal erosion hazard areas or associated buffers (see WCC 16.16.310).</u>		Required Change – This change adds the same standard found in the constrained lot provisions at 23.40.170.B.5. In no case should the common line setback be used that would place a single-family residence within a hazardous area.	Done.
Rec-9	23.40.020.G – Uses Allowed in Buffers and Setbacks	9. Where permitted, fences, walls other than retaining walls <u>those allowed by 23.70.020.G.8 above</u> , hedges and other similar structures shall be limited to four feet in height within shoreline setbacks and six feet in height outside of shoreline setbacks; provided, that the Director may exempt security fencing from this requirement as required by federal or state regulations.		Recommended Change – This change clarifies the difference between a wall and a retaining wall that may exceed this height limitation. See also Rec 4	Done.
Rec-10	23.40-020.G – Uses Allowed in Buffers and Setbacks	12. Accessory structures as allowed by 16.16.720(G)(4) Habitat Conservation Areas – Use and Modification		Recommended Change – Consider copying or moving 16.16.720.G.4, as amended in Req 27, to this location for clarity as the provision only applies within shoreline jurisdiction.	Done.
Rec-11	23.40.030 – General Shoreline Use and Modification Regulations	G. Accessory uses/ <u>structures</u> that do not require a shoreline location shall be sited away from the land/water interface and not placed waterward of the principal use <u>unless otherwise allowed by this Program</u> .		Recommended Change – See Rec X . Recommended Change – The added language clarifies that there are exceptions to this general regulation (See 16.16.720.G.4 as modified in Req-27.	Done.
Req-17	23.40.100.A.5 Flood Hazard Reduction and Instream Structures	Structural flood hazard reduction works shall be permitted only when it is demonstrated by engineering and scientific evaluations that: a. They are necessary to protect health/safety and/or existing development; b. Nonstructural flood hazard reduction measures are infeasible; and c. Measures are consistent with an adopted comprehensive flood hazard management plan that evaluates cumulative impacts to the watershed system or otherwise approved by Whatcom County Public Works' River and Flood Division.		Required Change – There is nothing within the SMP Flood Hazard Reduction Guidelines (WAC 173-26 221(3)) that allow a local government entity to override when new structural flood hazard reduction measures should be allowed within shoreline jurisdiction.	Done.
Req-18	23.40.100.A.12 – Flood Hazard Reduction and Instream Structures	Flood hazard reduction works should <u>shall</u> provide access to public shorelines whenever possible, unless it is demonstrated that public access would cause unavoidable public health and safety hazards, security problems, unmitigatable ecological impacts, unavoidable conflicts with proposed uses, or unreasonable cost. At a minimum, flood hazard reduction works should not decrease public access or use potential of shorelines.		Required Change – The consideration for public access associated with new flood hazard reduction measures is a requirement of the SMP Guidelines at WAC 173-26-221(3)(c)(iv).	Done
Rec-12	23.40.150.B.1 – Dimensional Standards for Freshwater	Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of <u>5.5</u> feet measured below the ordinary high water mark, an additional 4 sq. ft. of area may be added for each additional foot of pier or dock length needed to reach <u>5.5</u> feet of water depth at the waterward end of the pier or dock; provided, that all other area dimensions, such as maximum width and length, have been minimized		Recommended Change – This change makes this provision consistent with the maximum length standards listed later within this same table at 5.5 feet. The change is consistent with other changes the county made to this section based on comments received by Bill Haynes of Ashton Engineering on April 22, 2021.	Done.
Req-19	23.40.150.B.2 – Dimensional Standards for Marine Waters	<u>Maximum Width</u>	<ul style="list-style-type: none"> For moorage structures accessory to a residential use 4 feet for a single use or 6 feet for a joint use for pier or dock walkway or ramp For a joint use structure – 8 feet 	Required Change – This change removes the ambiguous reference to an 8-foot maximum associated with joint use structures. After consultation with Whatcom County PDS staff, these changes clarify the original intent that the 8-foot width maximum applied to joint-use residential moorage structures. Staff also	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)		RATIONALE	W/C Response
				suggested limiting the maximum width of such structures to 6-feet.	
Rec-13	23.40.150.B.1 – Dimensional Standards for Freshwater	Maximum Length <ul style="list-style-type: none"> Marine Rails Floats 	<ul style="list-style-type: none"> 20 feet <u>waterward from the ordinary high water mark</u> 20 feet for float decking per user (e.g. single user – 20 feet, 2-users – 40 feet, etc.) 	<p>Recommended Change – This change clarifies that the 20 foot maximum length requirement for rail systems is measured waterward of the ordinary high water mark and not landward.</p> <p>Recommended Change – This change would provide flexibility for maximum float length for Joint-use docks which are preferred over single-user docks within the SMP. The changes are consistent with the proposed float length maximums for marine joint-use docks found in 23.40.150.B.2.</p>	Done.
Rec-14	23.40.150.D.4 – Additional Standards for Individual Moorage	b. Alternative moorage, such as mooring buoys or a dock <u>or marine rail</u> sized to accommodate a tender to provide access in conjunction with a mooring buoy, are not adequate or feasible; and		Recommended Change – Now that the SMP allows small marine rail systems, they should be considered for tender moorage accessory to a mooring buoy prior to permitting a new dock.	Done.
Rec-15	23.40.150.E.2 – Additional Standards for Shared Moorage	e. On marine shorelines a dock or pier may be approved only if it is not feasible to provide mooring buoys with an adequate landing area or a dock <u>or marine rail system</u> sized to accommodate tenders.		Recommended Change – Now that the SMP allows small marine rail systems, they should be considered for tender moorage accessory to a mooring buoy prior to permitting a new dock.	Done.
Rec-16	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	3. The building area shall not exceed 2,500 square feet. The building area means <u>the proposed residence, normal appurtenances (except drainfields), and any proposed residential accessory structures.</u> Sidewalks and similar structures (except the single path allowed for shoreline access, parking areas, normal appurtenances (except drainfields). Additionally, another 500 square feet of low-impact development (LID) landscaping, including any lawn, turf, ornamental vegetation, or gardens is allowed, provided that it is set back as far as feasible from the shoreline.		Recommended Change – This change clarifies that the house itself is also part of what constitutes the building area. Other changes simplify this provision without changing its meaning. A single footpath to access the shoreline is already allowed within buffers elsewhere within the SMP.	Done.
Rec-17	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	4. Consideration shall be given to view impacts in accordance with <u>In no case shall the proposed residence be located waterward of the common-line setback as determined in applicable sections of</u> WCC 23.40.020(D)(2) (Common-Line Setback).		Recommended Change – This change clarifies that the intent of this provision is to protect views from existing adjacent residences.	Done.
Rec-18	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	7. Appropriate measures are taken to mitigate all adverse impacts, including but not limited to locating the residence <u>building area and landscaping allowance</u> in the least environmentally damaging location relative to the shoreline and any critical areas and their buffers.		Recommended Change – This change clarifies that the entire 2,500 square foot building area and the additional 500-square foot allowance for lawn/landscaping is required to locate in the least environmentally damaging location.	Done.
Rec-19	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	8. All reductions to side yard and/or frontage setbacks are pursued, <u>Such reductions may be approved administratively without a zoning variance,</u> when doing so will not create a hazardous condition or a condition that is inconsistent with this program and WCC Title 20.		Recommended Change – Without the proposed change, every application to use the constrained lot provisions will require a concurrent application for a variance to WCC Title 20 – Zoning. For many years, the Zoning Ordinance contained a “shoreline flip” provision that allowed for administrative reduction of the roadside setback down to five-feet when it was determined by Whatcom County Public Works that such a distance met applicable development standards for site distance, etc. This change would restore this administrative option and result in	Done.

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			more expeditious review of new residential development in this scenario.	
Req-20	23.40.170.B – Standards for Single-Family Residential Use on Constrained Lots	10. The shoreline jurisdiction shoreline area outside of the approved development is <u>retained if fully functional, and/or enhanced with native trees, shrubs and groundcovers through development of a mitigation plan, including monitoring and maintenance contingencies per 16.16.260.G.</u> optimized to provide the maximum shoreline ecological functions and ecosystem wide functions;	Required Change – It is unclear what the term “optimized” means but this change restores the exiting requirement that the remaining buffer areas are enhanced with trees, shrubs and groundcovers and maintained in perpetuity.	Done.
Req-21	23.40.170.C – Additional Standards for Multifamily Residential Development	3. Multifamily development with more than four units and shall incorporate public access to waters of the state as provided for in WCC 23.30.070 (Public Access) unless the site is designated in a shoreline public access plan for a greater component of public access or public access is demonstrated to be infeasible or inappropriate. The amount and configuration of public access shall depend on the proposed use(s) and the following criteria:	Required Change – This change restores the existing language that requires consideration for all multifamily development. There is nothing in the public access standards of the SMP Guidelines that exempt multifamily developments under a certain unit size [WAC 173-26-221(4)]	Done.
Rec-20	23.40.170.D – Additional Standards for Accessory Uses and Development	<u>Restore the following language:</u> 2. Shoreline permits shall be required for accessory development that does not meet the intent and definition of an appurtenance as defined in WCC 23.100.010(16).	Recommended Change – This change would restore an existing clarification that comes up often in SMP implementation that explains the difference between a residential appurtenance which can be exempt from the requirement to obtain a shoreline substantial development permit and a residential accessory structure that may require a substantial development permit.	Done.
Req-22 Rec-21	23.40.190.A – Shoreline Stabilization	5. Alternatives for shoreline stabilization shall be based on the following order of preference: a. No action, increase building setbacks, relocate structures; b. Nonstructural shoreline stabilization <u>stabilization, including building setbacks, relocation of structures to be protected and groundwater management;</u> c. Other Soft shoreline stabilization treatment; d. Hybrid shoreline stabilization; e. Hard shoreline stabilization.	Required Change – This change clarifies that increased setbacks are a form of nonstructural shoreline stabilization. In addition, the change restores existing language that requires consideration of structure relocation when feasible to avoid the need for stabilization and lists additional forms of nonstructural stabilization measures per the SMP Guidelines at WAC 173-26-231(3)(a). Recommended Change – Scrivener’s error (spelling).	Done.
Rec-22	23.40.190 – Shoreline Stabilization	12. Revetments are prohibited, except for use in water dependent and public infrastructure projects, which may be permitted as <u>a</u> conditional use.	Recommended Change – It is unclear why a revetment would be a prohibited form of shoreline stabilization when determined to be the least damaging and most appropriate choice for protection of primary structures. This change retains the conditional use requirement which will bring added scrutiny to these types of proposals to determine whether a revetment treatment is appropriate.	Not done. Should not normally be allowed.
Rec-23	23.40.190 – Shoreline Stabilization	15. Minimize disturbance pertaining to beach access by avoiding trails <u>that may be subject to loss or damage by erosion</u> require hard stabilization.	Recommended Change – This change clarifies that trails are not primary structures allowed to be protected with hard stabilization per the SMP. The provision has been reworded to leave the intent while removing language that could be perceived as allowing hard stabilization to protect accessory developments/structures.	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
Rec-24	23.60.030 – “C” Definitions	Restore the following condition of “Clearing”: <u>“Clearing” means the removal of vegetation or plant cover by manual, chemical, or mechanical means. Clearing includes, but is not limited to, actions such as cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting, or burning.</u>	Recommended Change – While this term is defined in WCC 16.16 and incorporated into the SMP by reference, the term could apply outside of critical areas within shoreline jurisdiction. In such cases, a definition within the SMP could be helpful for implementation purposes.	Done.
Req-23	16.16.225.B – General Regulations	7. Alteration of Type III or IV wetlands, <u>within exception of shoreline associated wetlands subject to WCC Title 23</u> , that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area; or	Required Change – This change is based on conversations with Whatcom County clarifying that this exception does not apply within shoreline jurisdiction.	Done.
Req-24	16.16.230 – Activities Allowed without Notification	The following activities do not require authorization from Whatcom County. However, this chapter shall not be construed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction. <u>Activities within the shoreline jurisdiction (WCC 23.20.10) may require a shoreline permit or statement of exemption.</u>	Required Change – This change is required for consistency with minimum procedural requirements for permit review in WAC 173-27. There may be instances where a shoreline permit or statement of exemption are required for developments that may otherwise be exempt outside of shoreline jurisdiction. The required language mimics that included in WCC 16.16.235.1 – Activities Allowed with Notification	Done.
Req-25	16.16.235.A – Activities Allowed With Notification	1. The applicant provides a written notification to the Director on a form provided by the Department. Activities within the shoreline jurisdiction (WCC 23.20.010) shall <u>may</u> require a shoreline permit or statement of exemption.	Required Change – This change clarifies the fact that some actions allowed through this process may not meet the definition of “Development” as defined by the SMP. In such cases, a shoreline permit or statement of exemption would technically not be required. In such instances, any applicable standards of the SMP would still apply but the process outlined within this section could still be utilized. For example, removal of a single hazard tree would not require a development permit or exemption per the SMP, however mitigation would still be required consistent with the SMP, including applicable sections of the CAO.	Done.
Req-26	16.16.270.C.12 – Reasonable Use Exceptions	a. On lots outside of the shoreline jurisdiction, w <u>hen</u> an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, those portions of the driveway shall be excluded from the 4,000-square foot maximum impact area; provided, that the access road or driveway meets the standards of WCC 16.16.620(D) or 16.16.720(D), as applicable. b. On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, the applicant shall demonstrate that the size and location of the driveway is the minimum necessary to access the development site.	Required Change – This change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.065.A.	Done.
Rec-25 Req-27	16.16.720.G.4 – Accessory Uses	Accessory water-oriented <u>Uses Structures</u> . When located in the shoreline jurisdiction, residential water-oriented accessory structures <u>including a boat equipment storage shed, an uncovered small boat storage rack, a fire pit, and a pathway leading to the shoreline</u> , may be permitted in an HCA buffer; provided. a. <u>Such structures are located as far from the shoreline as feasible and on previously-impacted buffer areas, and</u>	Recommended Change – This change clarifies that this section is related to accessory structures rather than uses. Required Changes – These changes are required for consistency with the SMP Guidelines governing principle that SMP regulations must be designed to achieve no net loss of ecological functions (WAC 173-26-186(8)). The changes add	Done.

ITEM	PROVISION	BILL FORMAT CHANGES (underline = additions; strikethrough = deletions)	RATIONALE	W/C Response
		<ul style="list-style-type: none"> b. <u>The maximum area, inclusive of existing lawfully-established accessory structures, They</u> shall be limited to 10% of the buffer's area or 500 square feet, whichever is less; and, c. No more than 20% of the linear length of shoreline is occupied by a building or structure; and d. <u>Individual structures shall be limited to a total footprint area of 100-square feet and 10-feet in height, and</u> e. The shoreline is 75% planted (or replanted), <u>or at ratios outlined in 16.16.760 whichever is greater</u>, with native vegetation to a minimum depth of 15 feet landward from the ordinary high water mark. f. <u>This provision shall not apply to residential developments authorized using the constrained lot provisions outlined in 23.40.150.B.</u> 	appropriate sideboards to allow a limited and predictable list of common residential developments that may be located within regulated buffers. The changes include more emphasis on the required mitigation sequence including avoidance, minimization and mitigation of impacts to buffers [WAC 173-26-201(2)(e)]	
Rec-26	16.16.730.A – Habitat Conservation Area Buffers	1. Buffers shall be established for activities adjacent to habitat conservation areas as necessary to protect the integrity, functions, and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent human use or activity. Buffers shall not include areas that are functionally and effectively disconnected from the wetland <u>habitat conservation area</u> by an existing, legally established road or other substantially developed surface.	Recommended Change – Scrivener's error correction. It appears this language was copied from the wetland section without changing the reference to HCAs.	Done.
Rec-27	16.16.740. C – Habitat Conservation Area Buffer Modification	2. In all circumstances when the buffer between the area of reduction and the wetland <u>habitat conservation area</u> is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.	Recommended Change – Scrivener's error correction. It appears this language was copied from the wetland section without changing the reference to HCAs.	Done.

Attachment 2: 2020 Whatcom County SMP Periodic Review Amendment – Public Comment Summary

The following comments were received during the joint public comment period between March 12, 2021 and April 22, 2021. In addition, public comments received at the joint public hearing are also included below:

Comment #	Commenter	Date	Section	Comment Summary	Whatcom County Response
MES43	Ed Miller, Miller Environmental Services	4/12/21	16.16.270 & 16.16.273	<p>These sections are a complete rewrite of reasonable use procedures and would require a variance (minor and major variance) before reasonable use would apply.</p> <p>Current Code: Reasonable use provisions are currently considered prior to a variance application. A variance application is time-consuming, more expensive, and requires review/approval by the hearing examiner with a public hearing. Per 16.16.270.C.1 only reasonable use exceptions for single-family residential building or for other development proposals that would affect only buffers, but not critical areas themselves (e.g., wetlands and streams), shall be processed administratively. Other applications that directly impact critical areas, with the exception of single-family residential, currently have to apply for a variance application. If an applicant currently wants to propose a larger footprint than the allowed 4,000 square feet under reasonable use, they could also apply for a variance.</p> <p><i>Suggested Change:</i> Strike the proposed changes to reasonable use and variance procedures. Return to the current language. Also, add bolded language to section 16.16.270.j. The project includes mitigation for unavoidable critical area and buffer impacts in accordance with the mitigation requirements of this chapter – or if the mitigation requirements cannot be met, to the maximum extent feasible on the property.</p> <p><i>Rational for suggested change:</i> The proposed change is a significant alteration to the code and process. A significant number of previously designated reasonable use projects, processed administratively, would need to go to the hearing examiner. This will significantly increase costs and time to applicants for simple single-family construction or projects with only buffer impacts – as the current code requires an open public hearing for anything more complex. This will also create more uncertainty as to what will be allowed when a property is encumbered with critical areas and buffers. It should also be remembered, that reasonable use scenarios have increased significantly over the last four years as the result of larger buffers occurring on properties since 2017 – the result of utilization of updated Ecology wetland rating forms and guidance. Generally, critical areas, primarily wetlands, have not changed but buffers have become significantly larger.</p> <p>The change to section j is included so that applicants aren't required to purchase another property for mitigation – which has been required in some cases, precluding any development at all (even for buffer impacts).</p>	<p>Our Hearing Examiner has questioned our current schema, in particular why he isn't the final decision maker, as the current code allows an administrative determination to be made after a quasi-judicial decision, and in the hierarchy of permitting, applicants should have to exhaust any administrative remedies before seeking a quasi-judicial decision. Staff is proposing that reasonable use exceptions be the last method of altering standards to allow reasonable economic use of constrained property, and that they be decided upon by the Hearing Examiner (see 16.16.270 Reasonable Use Exceptions).</p> <p>In this schema, the degree to which one can vary standards while providing the least amount of mitigation moves up a level at each step, with the Hearing Examiner making the tougher decisions through a quasi-judicial process. This would return the reasonable use exception to truly the last effort of avoiding a taking.</p> <p>However, to counter the additional time and cost of this process, staff is also proposing to create a new category of variances, called minor variances (16.16.273 Variances). They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number of cases having to go to the Hearing Examiner and cost less to the citizens of Whatcom County overall.</p>

MES44	Ed Miller, Miller Environmental Services	4/12/21	16.16.620(D) & 16.16.720(D)	<p><i>Draft Code:</i> Private Access. Access to existing legal lots may be permitted to cross Category II, III or IV wetlands or their buffers, provided the access meets the following... And. Private Access. Access to existing legal lots may be permitted to cross habitat conservation areas if there are no feasible alternative alignments.</p> <p><i>Current Code:</i> <u>Access to private development sites</u> may be permitted to cross Category II, III or IV wetlands or their buffers, provided...</p> <p><i>Suggested Change:</i> Strike the change and keep the current language, both wetland and HCA sections.</p> <p><i>Rationale for suggested change:</i> This section as modified implies that no new lots could be created (subdivided) if a road would be needed to cross through a wetland or buffer or habitat conservation areas. Access to large areas of unencumbered property could be restricted if one small wetland or its buffer would need to be impacted to access a development area. For example, creating new lots in unencumbered areas (no critical areas) per the underlying zoning might not be allowed on a 40 acre property if the crossing of a non-fish stream or the outer portion of a buffer was required.</p>	This formerly proposed language has already been stricken and reverted to the original language in the more recent versions of Exhibit F (4/5/21)
MES45	Ed Miller, Miller Environmental Services	4/12/21	16.16.640(A)(5)	<p><i>Draft Code:</i> Buffer Width Increasing: The Director may require the standard buffer width to be <u>increased by the distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas for one of the following:</u></p> <p><u>(5) When a Category I or II wetland is located within 300 feet of:</u></p> <ol style="list-style-type: none"> <u>Another Category I, II or III wetland; or</u> <u>A fish and wildlife HCA; or</u> <u>A type S or F stream; or</u> <u>A high impact land use that is likely to have additional impacts.</u> <p><i>Suggested Change:</i> Strike the new, added section (5).</p> <p><i>Rationale for suggested change:</i> This added provision, not in the current code, allows staff to extend any Category II wetland buffers out to 300 feet – if another wetland or HCA is within 300 feet. HCA's include mature forest, priority snags (logs on the ground, 20 feet long, 12 inches wide), streams, etc.</p> <p>The intent of this appears to be to increase buffers if adjacent critical areas are present. However, this is already accounted for in the wetland rating form. The habitat score, which drives the buffer width, is scored higher if habitat conservation areas are within 330 feet. The proposed draft change seems redundant when these factors are already utilized in determining the buffers in the current code - based on the wetland rating form. If the intent is also to protect habitat corridors, then it is also redundant, as these are already protected in the habitat conservation section of the code – State priority habitat “Biodiversity areas and corridors”.</p>	Staff believes this addition better reflects DOE guidance and Council's direction to improve connectivity.
MES46	Ed Miller, Miller Environmental Services	4/12/21	16.16.640(B)(2) & 16.16.745(B)(2)	<p><i>Draft code.</i> Buffer Width Averaging: <u>In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.</u></p> <p><i>Suggested Change:</i> Strike the proposed change.</p>	This formerly proposed language has already been stricken and reverted to the original language in the most recent version of Exhibit F (4/5/21)

				<p><i>Rationale for Suggested Change:</i> This section effectively eliminates the intent of buffer averaging and converts it to buffer reduction by requiring mitigation in the form of added plantings. Buffer averaging is an important and simple way to allow more flexibility for property owners that need to make minor buffer adjustments. This section will also reduce consistency and predictability (each staff member could apply this differently), and will increase the cost for simple projects by requiring plantings, monitoring, bonding, etc. by thousands of dollars. Additionally, the Director already has the ability to require plantings in a wetland or HCA buffer where it lacks adequate vegetation under 16.16.630.D or 16.740.B.1, making this code addition redundant.</p>	
MES47	Ed Miller, Miller Environmental Services	4/12/21	16.16.640(C)(1)(c)	<p><i>Buffer Width Reduction draft code:</i> <u>The buffer shall not be reduced to less than 75% of the standard buffer.</u></p> <p><i>Current Code:</i> Allows for a Category IV wetland buffer to be reduced by up to 50% or 25 feet, whichever is greater.</p> <p><i>Suggested Change:</i> Restore prior language to allow for up to 50% reduction (or 25 feet) for Category IV wetlands.</p> <p><i>Rationale for Suggested Change:</i> The existing code section allows for up to a 50% (or minimum of 25 feet) reduction of a Category IV wetland buffer, while higher category wetlands are restricted to a 25% reduction. Under the draft buffer averaging section, Category IV wetlands are still allowed up to a 50% reduction. This proposed change will remove flexibility for property owners for the lowest category of wetlands.</p>	Staff believes this amendment better reflects DOE guidance.
MES48	Ed Miller, Miller Environmental Services	4/12/21	16.16.710(C)(1)(a)(v) & 16.16.740(B)	<p><i>Draft Code:</i> Type O waters include all segments of aquatic areas that are not type S, F, or N waters and that are physically connected to type S or F waters by an above-ground channel, system, pipe, culvert, stream or wetland. And 16.16.740.B. Type O Buffer = 25 feet.</p> <p><i>Current Code:</i> Not present in the current code.</p> <p><i>Suggested Change:</i> Strike this addition of Type O waters and associated 25-foot buffer. Return the prior designation of Natural Ponds to the buffer Table requiring a 50 foot buffer.</p> <p><i>Rationale for Suggested Change:</i> The definition of Type O waters will include ditches and artificial ponds that eventually drain to a fish stream. This will include most of the ditching and artificial ponds in Whatcom County. This will in effect place 25-foot buffers in any front yard along a road with a County ditch – creating protected critical areas buffers along most property road frontage. Any time the County public works excavated new ditching, or extended existing new ditching, they would also be creating new critical areas and encumbering adjacent properties with a buffer for a resource that the County created. This seems problematic and overreaching. Ditching provides a function to control and direct stormwater. The department of Ecology has no recommendations designating artificial ditches as critical areas or for placing buffers on artificial ditching. This would create a new critical area, most of which are within County rights-of-way. Additionally, most of the ditches outside of road right of ways are agricultural in nature and created prior to the growth management act and the clean water act. Additionally, Type O waters do not correlate with Washington State water typing.</p>	This formerly proposed language has already been stricken and amended in the most recent version of Exhibit F (4/5/21)

MES49	Ed Miller, Miller Environmental Services	4/12/21	16.16.710(C)(b)(i)	<p><i>Draft Code:</i> Ditches or other artificial water courses are considered streams for the purposes of this chapter when: i. used to convey <u>waters of the state</u> existing prior to human alteration; and/or...</p> <p><i>Current Code:</i> Ditches or other artificial water courses are considered streams for the purposes of this chapter when: i. used to convey <u>natural streams</u> existing prior to human alteration; and/or...</p> <p><i>Suggested Change:</i> Strike the change and replace the current language.</p> <p><i>Rationale for suggested change:</i> This change seems to make the section more confusing. State definitions (italics added):</p> <p>“Waters of the state includes all lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses located within the jurisdiction of the state of Washington (RCW 90.48.020).”</p> <p>“WAC 220-660-030(153) Watercourse, river or stream means any portion of a stream or river channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state. Watercourse also means areas in which fish may spawn, reside, or pass, and tributary waters with defined bed or banks that influence the quality of habitat downstream. Watercourse also means waters that flow intermittently or that fluctuate in level during the year, and the term applies to the entire bed of such waters whether or not the water is at peak level. A watercourse includes all surface-water-connected wetlands that provide or maintain habitat that supports fish life. This definition does not include irrigation ditches, canals, stormwater treatment and conveyance systems, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.”</p> <p>Per state definition, waters of the state (that might be found in a ditch) have an ordinary high water mark and are not artificial – essentially a “natural stream”. It seems the current language is consistent with state definitions and is clearer.</p>	Based on public comment and direction from the P/C, staff has rewritten this section to be clearer and allow lesser buffers on modified waterways that are not regulated by WDFW. See 16.16.710(C) & (D)(2) in the most recent version of Exhibit F (4/5/21).
MES50	Ed Miller, Miller Environmental Services	4/12/21	16.16.745(A)(2)	<p><i>Draft Code:</i> Buffer Width Increasing. The Director may require the standard buffer width to be increased or to establish a non-riparian buffer, when such buffers are necessary for one of the following:</p> <ol style="list-style-type: none"> 1) To protect priority fish or wildlife using the HCA 2) <u>To provide connectivity when a Type S or F water body is located within 300 feet of:</u> <ol style="list-style-type: none"> a. <u>Another Type S or F water body; or</u> b. <u>A fish and wildlife HCA; or</u> c. <u>A Category I, II or III wetland.</u> <p><i>Current Code:</i> 16.16.745.A.2 - language added, not in the current code.</p> <p><i>Suggest Changed:</i> strike the new added section 16.16.745.A.2.</p> <p><i>Rationale for suggested change:</i> This is a new provision to the code that allows the Director to extend Type S or F buffers to resources within 300 feet – including Category III wetlands, other HCA's or other waters. Again, this is an exceptionally broad provision to add in additional</p>	Staff believes this addition better reflects DOE guidance and Council's direction to improve connectivity.

				regulated areas that are not currently designated as critical areas or buffers in the existing or even the proposed amended code. The extension of every fish stream or lake buffer to another resource within 300 feet is essentially extending most of the buffer areas to 300 feet. If the intent is also to protect habitat corridors, then it is also redundant, as these are already protected in the habitat conservation section of the code – State priority habitat “Biodiversity areas and corridors”.	
RFW17	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21		<p>Incorporate regulations to prepare for accelerating sea level rise impacts.</p> <p>The SMA and SMP Guidelines require shoreline master programs to address the flooding that will be caused by sea level rise. RCW 90.58.100(2)(h) requires that shoreline master programs “shall include” “[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages ...” WAC 173-26-221(3)(b) provides in part that “[o]ver the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas ...” “Counties and cities should consider the following when designating and classifying frequently flooded areas ... [t]he potential effects of tsunamis, high tides with strong winds, sea level rise, and extreme weather events, including those potentially resulting from global climate change” The areas subject to sea level rise are flood prone areas just the same as areas along bays, rivers, or streams that are within the 100-year flood plain. RCW 90.58.100(1) and WAC 173-26-201(2)(a) also require “that the ‘most current, accurate, and complete scientific and technical information’ and ‘management recommendations’ [shall to the extent feasible] form the basis of SMP provisions.” This includes the current science on sea level rise.</p> <p>Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. In 2012 the National Research Council concluded that global sea level had risen by about seven inches in the 20th Century. A recent analysis of sea-level measurements for tide-gage stations, including the Seattle, Washington tide-gauge, shows that sea level rise is accelerating.⁵ Virginia Institute of Marine Science (VIMS) “emeritus professor John Boon, says ‘The year-to-year trends are becoming very informative. The 2020 report cards continue a clear trend toward acceleration in rates of sea-level rise at 27 of our 28 tide-gauge stations along the continental U.S. coastline.’” “‘Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns,’ says Boon.” The Seattle tide gage was one of the 27 that had an accelerating rate of sea level rise. The report Projected Sea Level Rise for Washington State – A 2018 Assessment projects that for a low greenhouse gas emission scenario there is a 50 percent probability that sea level rise will reach or exceed 1.2 feet by 2100 around Sandy Point and the west side of the Lummi Peninsula. Projected Sea Level Rise for Washington State – A 2018 Assessment projects that for a higher emission scenario there is a 50 percent probability that sea level rise will reach or exceed 4.5 feet by 2100 for the same area. Projections are available for all of the marine shorelines in Whatcom County and Washington State.</p> <p>The extent of the sea level rise currently projected for Whatcom County can be seen on the NOAA Office for Coastal Management Digitalcoast Sea Level Rise Viewer available at: https://coast.noaa.gov/digitalcoast/tools/slr.html. Please see map images at the bottom of this</p>	<p>There isn’t a requirement to address climate change/sea level rise in the SMA, though we could if Council desires. However, what we understand from the DOE is that any such regulations should be built on data, which is what PS-CoSMoS will be providing. Furthermore, once the data is available, we should perform vulnerability and risk assessments to see what kind and where the problems might be, and update our shoreline inventory and characterizations. Without such science, we would be open to challenges.</p>

			<p>letter detailing the changes in water elevation from the current mean higher high water (MHHW) to four feet of sea level rise.</p> <p>Projected sea level rise will substantially increase flooding. As Ecology writes, “[s]ea level rise and storm surge[s] will increase the frequency and severity of flooding, erosion, and seawater intrusion—thus increasing risks to vulnerable communities, infrastructure, and coastal ecosystems.” Not only our marine shorelines will be impacted, as Ecology writes “[m]ore frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life.”</p> <p>Zillow recently estimated that 31,235 homes in Washington State may be underwater by 2100, 1.32 percent of the state’s total housing stock. The value of the submerged homes is an estimated \$13.7 billion. Zillow wrote:</p> <p>“It’s important to note that 2100 is a long way off, and it’s certainly possible that communities [may] take steps to mitigate these risks. Then again, given the enduring popularity of living near the sea despite its many dangers and drawbacks, it may be that even more homes will be located closer to the water in a century’s time, and these estimates could turn out to be very conservative. Either way, left unchecked, it is clear the threats posed by climate change and rising sea levels have the potential to destroy housing values on an enormous scale.”</p> <p>Sea level rise will have an impact beyond rising seas, floods, and storm surges. The National Research Council wrote that:</p> <p>“Rising sea levels and increasing wave heights will exacerbate coastal erosion and shoreline retreat in all geomorphic environments along the west coast. Projections of future cliff and bluff retreat are limited by sparse data in Oregon and Washington and by a high degree of geomorphic variability along the coast. Projections using only historic rates of cliff erosion predict 10–30 meters [33 to 98 feet] or more of retreat along the west coast by 2100. An increase in the rate of sea-level rise combined with larger waves could significantly increase these rates. Future retreat of beaches will depend on the rate of sea-level rise and, to a lesser extent, the amount of sediment input and loss.”</p> <p>These impacts are why the Washington State Department of Ecology recommends “[l]imiting new development in highly vulnerable areas.”</p> <p>Unless wetlands and shoreline vegetation can migrate landward, their area and ecological functions will decline. If development regulations are not updated to address the need for vegetation to migrate landward in feasible locations, wetlands and shoreline vegetation will decline. This loss of shoreline vegetation will harm the environment. It will also deprive marine shorelines of the vegetation that protects property from erosion and storm damage by modifying soils and accreting sediment. WEC and Futurewise’s Sept. 16, 2020 letter included maps that show the extent of this amount of sea level rise in Whatcom County and wetland migration in part of the County if the wetlands are not blocked by development. Additional maps are also enclosed with this letter.</p>	
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RFW18	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21	16.16.270	<p>Restore Reasonable Use impact area language in the Dec 4, 2020 draft Exhibit F, WCC 16.16.270 Reasonable Use Exceptions.</p> <p>We urge Whatcom County to restore the proposed change from the P/C to expand the maximum impact area for single-family residences from 4,000 square feet to 2,500 square feet in 16.16.270.C.12. The purpose of the reasonable use provision is to allow only the minimal “reasonable” use of property to avoid a constitutional taking when fully applying the standards of critical areas regulations.</p> <p>The courts generally decide the concept of reasonable; however, reasonable use is often interpreted as a modest single-family home. A home with a footprint of 4,000 square feet is excessive. A median size house built in 2019 has 2,301 square feet of floor area. We can assume that to be less than footprint 1,500 square feet.</p>	Your comment will be provided to the P/C & Co/C for consideration.
RFW19	Karlee Deatherage (RE Sources), Rein Attemann (WEC), and Tim Trohimovich (Futurewise)	4/12/21	16.16.730 , Table 4	<p>Incorporate the State of Washington Department of Fish & Wildlife’s new riparian buffers guidance.</p> <p>As has been reported in media and scientific reports, the southern resident orcas, or killer whales, are threatened by (1) an inadequate availability of prey, the Chinook salmon, “(2)</p>	Pursuant to 23.230.010(B)(4) floodways and contiguous floodplain areas landward two hundred feet from such floodways are within the shoreline jurisdiction.

				<p>legacy and new toxic contaminants, and (3) disturbance from noise and vessel traffic.”</p> <p>“Recent scientific studies indicate that reduced Chinook salmon runs undermine the potential for the southern resident population to successfully reproduce and recover.” The shoreline master program update is an opportunity to take steps to help recover the southern resident orcas, the Chinook salmon, and the species and habitats on which they depend.</p> <p>The SMP Guidelines, in WAC 173-26-221(3)(c), provides in part that “[i]n establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201 (2)(a). At a minimum, local governments should consult shoreline management assistance materials provided by the department and Management Recommendations for Washington’s Priority Habitats, prepared by the Washington state department of fish and wildlife where applicable.”</p> <p>The State of Washington Department of Fish and Wildlife has recently updated the Priority Habitat and Species recommendations for riparian areas. The updated management recommendations document that fish and wildlife depend on protecting riparian vegetation and the functions this vegetation performs such as maintaining a complex food web that supports salmon and maintaining temperature regimes to name just a few of the functions.</p> <p>The updated Riparian Ecosystems, Volume 1: Science synthesis and management implications scientific report concludes that the “[p]rotection and restoration of riparian ecosystems continues to be critically important because: a) they are disproportionately important, relative to area, for aquatic species, e.g., salmon, and terrestrial wildlife, b) they provide ecosystem services such as water purification and fisheries (Naiman and Bilby 2001; NRC 2002; Richardson et al. 2012), and c) by interacting with watershed-scale processes, they contribute to the creation and maintenance of aquatic habitats.” The report states that “[t]he width of the riparian ecosystem is estimated by one 200-year site-potential tree height (SPTH) measured from the edge of the active channel or active floodplain. Protecting functions within at least one 200-year SPTH is a scientifically supported approach if the goal is to protect and maintain full function of the riparian ecosystem.” These recommendations are explained further in Riparian Ecosystems, Volume 2: Management Recommendations A Priority Habitats and Species Document of The Washington Department of Fish and Wildlife.</p> <p>Based on these new scientific documents, we recommend that shoreline jurisdiction should include the 100-year floodplain and that the buffers for rivers and streams in shoreline jurisdiction be increased to use the newly recommended 200-year SPTH and that this width should be measured from the edge of the channel, channel migration zone, or active floodplain whichever is wider. New development, except water dependent uses should not be allowed within this area. This will help maintain shoreline functions and Chinook habitat.</p>	<p>And pursuant to 16.16.730 Table 4, Type S – Freshwater HCAs are proposed to have a 200-foot buffer based on National Wildlife Federation v. FEMA (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472)</p>
TSF01	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.010	<p>Table 1 of the draft proposes to revise the shoreline use table to prohibit general aquaculture (aquaculture other than commercial geoduck and salmon net pen facilities) in aquatic areas adjacent to the Natural shoreline environment designation (SED). This proposed revision should not be adopted. No scientific or technical information is identified in the Draft Amendment that would support this revision. As recognized by the GMHB, prohibiting</p>	<p>The purpose of the natural shoreline area is to “ensure long-term preservation of ecologically intact shorelines” and “preservation of the area’s ecological functions, natural features and overall character must receive priority over any other potential use.” The Natural SED is only applied in a few areas of the county, primarily the headwaters of the 3</p>

				aquaculture in the Natural SED absent such support is impermissible. Allowing aquaculture in the Natural SED is consistent with the purpose and policies of the Natural SED.	upper Nooksack branches and around state or locally controlled nature preserves. None of these areas would likely be used for aquaculture.
TSF02	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(A)(1)	<p>Strike A.1. Aquaculture that involves little or no substrate modification shall be given preference over those that involve substantial modification. The applicant/proponent shall demonstrate that the degree of proposed substrate modification is degree of proposed substrate modification is aquaculture operations at the site.</p> <p>The first sentence of this provision is unsuitable for a regulation, as it merely expresses a preference for certain activities over others. Moreover, it is inadequately defined and unsupported by scientific and technical information. To the extent that it would disfavor common shellfish aquaculture practices that have been proven to have insignificant impacts on species and habitat (e.g., those covered by the Programmatic Consultation or analyzed by Washington Sea Grant), it runs directly counter to such information in violation of the SMA and Guidelines. It would also fail to give preference to and foster shellfish aquaculture contrary to state law.</p> <p>The second sentence appears to impose a substantive requirement that any substrate modifications must be the minimum necessary for feasible operations. This restriction is similarly unsupported by scientific and technical information and fails to give preference to and foster shellfish aquaculture. In an analogous context, the GMHB held that an aquaculture regulation requiring gear use be limited to the minimum necessary for feasible operations violated state law and must be stricken.</p>	<p>Though the language is existing, the commenter may be correct regarding the 1st sentence, as it does read more like a policy rather than a regulation. And Policy 11CC-3 basically says the same thing, so that 1st sentence could be deleted (though it wouldn't have much effect on the regulation).</p> <p>Regarding the 2nd sentence (again, existing language), staff sees no legal issue in requiring methods used minimize impacts to shoreline functions. The regulation only states that the applicant demonstrate that the degree of proposed substrate modification is the minimum necessary. We would think that Taylor Shellfish Farms already uses the least impactful methods given how environmentally friendly they purport to be. Nonetheless, your comments will be provided to the P/C and Co/C for their consideration.</p>
TSF03	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(A)(2)	<p>Strike A.2 The installation of submerged structures, intertidal structures, and floating structures shall be allowed only when the applicant/proponent demonstrates that no alternative method of operation is feasible.</p> <p>Similar to the previous provision, this provision is not only unsupported by scientific and technical information, but such information demonstrates aquaculture structures do not have unacceptable impacts. This provision imposes unjustifiable use restrictions and fails to give preference to and foster aquaculture, and hence it should be deleted.</p>	Again, existing language, and it's only asking that the applicant demonstrate that any proposed structures be the least impactful to shoreline functions. Nonetheless, your comments will be provided to the P/C and Co/C for their consideration.
TSF04	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(A)(3)	<p>Strike A.3 Aquaculture proposals that involve substantial substrate modification or sedimentation through dredging, trenching, digging, mechanical clam harvesting, or other similar mechanisms, shall not be permitted in areas where the proposal would adversely impact critical saltwater habitat, or other fish and wildlife habitat conservation areas.</p> <p>This provision is insufficient in scope and detail to ensure proper implementation, as several key terms are undefined. Moreover, this regulation appears to articulate a zero-impact standard inconsistent with the SMA and the Guidelines, which acknowledge that activities will have some impacts and calls for those impacts to be minimized. This provision is particularly inappropriate given commercial shellfish beds are themselves critical saltwater habitat.</p>	Staff disagrees with the commenters conclusions. The key words are either defined or their common usage is understood, and the regulation does not articulate a zero-impact standard: It only limits certain types of practices that might have significant impacts on critical saltwater habitats.
TSF05	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(B)(9)	"Where aquaculture activities are authorized to use <u>public County</u> facilities, such as boat launches or docks, the County shall reserve the right to require the applicant/proponent to pay a portion of the cost of maintenance and any required improvements commensurate with the use of such facilities."	Staff agrees with the commenter and has made this suggested edit.

				This revision provides important clarification that the authority to require a project proponent pay a portion of maintenance costs and required improvements applies to County, rather than any public (e.g., state or federal), facilities. Use and maintenance of non-County public facilities are properly addressed by the entities or agencies that own or control those facilities.	
TSF06	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(F)(1)	<p>In addition to the minimum application requirements specified in WCC Title 22 (Land Use and Development), applications for aquaculture use or development shall include all information necessary to conduct a thorough evaluation of the proposed aquaculture activity, including but not limited to the following, <u>if not already provided in other local, state, or federal permit applications or equivalent reports</u>:</p> <p>Aquaculture operations are subject to numerous laws and regulatory programs. Applicants for new aquaculture projects must obtain several federal and state approvals in addition to shoreline permits. The County should allow aquaculture applicants to utilize information provided in other local, state, or federal permit applications or equivalent reports in order to satisfy shoreline permit application requirements. This allowance will not hinder the County's interest in ensuring it has all information necessary to conduct a thorough evaluation of aquaculture proposals, and it is critical to avoid unnecessary burdens on applicants and streamline permitting consistent with the laws and policies discussed above.</p>	Staff agrees with the commenter, but none of the language prohibits the applicant from submitting materials used in or produced by other permitting processes. Regardless of whether another agency has made a decision on a permit, the County is still required to maintain a record of our decision making and would need copies of those materials to come to a rational conclusion.
TSF07	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(F)(2)	<p>Applications for aquaculture activities must demonstrate that the proposed activity will be compatible with surrounding existing and planned uses.</p> <ol style="list-style-type: none"> Aquaculture activities shall comply with all applicable noise, air, and water quality standards. All projects shall be designed, operated and maintained to minimize odor and noise. Aquaculture activities shall be restricted to reasonable hours and/or days of operation when necessary Aquaculture activities shall be designed, operated and maintained to minimize substantial, adverse impacts from noise, light, and/or glare on nearby residents, other sensitive uses or critical habitat. Aquaculture facilities shall not introduce incompatible visual elements or substantially degrade Aquaculture facilities shall not introduce incompatible visual elements or substantially degrade significantly impact the aesthetic qualities of the shoreline. Aquaculture structures and equipment, except navigation aids, shall be designed, operated and maintained to blend into their surroundings through the use of appropriate colors and materials. <p>Taylor Shellfish, along with other responsible farmers, employ numerous practices to avoid and minimize potential noise and light impacts on other shoreline users. However, to help protect the safety of its crews and provide marketable products, shellfish operators frequently need to conduct activities during nights or on weekends when there are low tides. This is recognized in the Guidelines, which state: "Commercial geoduck aquaculture workers oftentimes need to accomplish on-site work during low tides, which may occur at night or on weekends. Local governments must allow work during low tides but may require limits and conditions to reduce impacts, such as noise and lighting, to adjacent existing uses." Restricting operations to certain hours or days may compromise the safety of farm crews and/or render operations infeasible. This requirement in 2.b is incompatible with the SMA and Guidelines, and it should be removed.</p>	Staff agrees with the commenter and has amended this section as suggested.

				The requirement in 2.c that aquaculture facilities not introduce incompatible visual elements or substantially degrade the aesthetic qualities of the shoreline is inconsistent with the Guidelines, which instead require that that aquaculture not significantly impact aesthetic qualities. The requirement that aquaculture activities not introduce incompatible visual elements is insufficient in scope and detail to ensure proper implementation. This subsection should be aligned with state law.	
TSF08	Diani Taylor, General Counsel, Taylor Shellfish Farms	4/12/21	23.40.050(H)(2)	<p>In the Natural shoreline environment, aquaculture activities that do not require structures, facilities, or mechanized harvest practices and that will not result in the alteration of substantially degrade natural systems or features are permitted.</p> <p>The prohibition on structures, facilities, or mechanized harvest in the Natural environment is unsupported by scientific and technical information and is accordingly inconsistent with the SMA and Guidelines. As discussed above, there is extensive scientific and technical information that demonstrates shellfish aquaculture activities, some of which include these proscribed items, have minimal impacts that are consistent with the Natural environment. The revised language shown here remedies these failures and aligns this regulation with the management policies in the Guidelines for the Natural environment.</p>	Staff disagrees with the commenter. The Natural SED is intended to remain natural and is the only SED where such structures are prohibited. It is not a general prohibition, just one for one certain SED. The Natural SED is only applied in a few areas of the county, primarily the headwaters of the 3 upper Nooksack branches and around state or locally controlled nature preserves. None of these areas would likely be used for aquaculture.
BIAWC08	Robert Lee, BIAWC	4/12/21	16.16.273	<p>Reasonable Use and Variances: Staff has proposed major changes to the procedures and criteria for both. The current 2017 CAO allows PDS staff to grant reasonable use (RU) permits for one single family house under very strict criteria if CAO rules alone would deny "all reasonable and economically viable use" of the property.</p> <p>A. Variances: They now require a public hearing and approval by the Hearing Examiner (HE). The applicant must demonstrate "undue hardship" due to CAO "dimensional requirements". Frankly, it's not clear what the difference is between the scope of these and RU applications in current code.</p> <p>Per draft Section 16.16.270.A, p 30-31, Exh. F, if a person only needs a 25 to 50% CAO buffer reduction, they would apply for a Minor Variance, instead of a RU Exception per current code.</p> <p>The draft does not say whether this value is total area, width, or both. Staff decides these permits; notice to neighbors is required. We do appreciate the new minor variance idea allowing staff approval, but why they also have to provide notice to adjacent land owners?</p> <p>A Major Variance is required for any other CAO exceptions. See Section 16.16.273, p 34. Either level of variance will be a costly process; the fee is \$2750, plus critical area reports, possibly consultants and any legal costs.</p> <p>One could only apply for a Reasonable Use Exception RU if their variance app is denied. This means if you don't get adequate relief with a variance approval, one must repeat the permit process to apply for an RU, and pay double fees and costs. A person may also face an appeal to Superior Court from someone.</p>	<p>Please see the responses provided for Comments GCD14, NES02, NWC02, NWC05, BIA04, MES11, MES29, MES31, MES43, RFW12, & RFW18.</p> <p>In addition, variances have always required a public hearing and approval by the H/E using the same criteria. We have now introduced a "minor" variance (the creation of which has already been approved by Co/C) for minor buffer reductions. An all variances always require public notice, as we're potentially letting applicants use lesser standards than what the code prescribes, which might have impacts on neighbors.</p> <p>We have also put in a request to have a much lower fee for minor variances.</p>
BIAWC09	Robert Lee, BIAWC	4/12/21	16.16.270(C)(12)	<p>B. Reasonable Use Exception (RU)</p> <p>1. Footprint Size:</p>	Please see the responses provided for Comments BIA04, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.

				<p>Re draft Sections 270, Item C, p 31, we support the increase in the allowed "impact area" for a house via the RU process to 4,000 sq. ft., from 2,500, recently accepted by the P/C. This limit is a minimally reasonable value when you consider most of the sites will be 2 acres or larger, and many rural land owners will want barns, corrals, shops, etc.</p> <p>Also, these and all other CAO rules apply in the county's two Urban Growth Areas: Birch Bay and Columbia Valley, where lot sizes are usually much smaller, and on public sewer and water systems.</p> <p>However, "impact area" is not defined in the draft CAO. We suggest this term be defined to include only artificial impervious surfaces. We support the driveway exception as written, and ask that drainfield areas be listed as excepted too.</p> <p>There appears to be no scientific basis for either value. The 4,000 sf value will often be generally reasonable in this context for smaller lots, e.g., 1 to 5 acres. But several large rural areas are zoned 10 acre minimum. We think consideration should be given to a "sliding scale" proposal, for parcels 5 acres and larger, based on zoning, platting options, availability of drinking water, soils for septs, etc.</p> <p>Many rural residents are horse enthusiasts, and want training rings, which will push the total footprint over the 4,000 sf limit.</p>	<p>And remember, RUEs are for lots totally constrained by critical areas. Lots that aren't so constrained can build to whatever size the code allows for their zone. We would think that someone who wants barns, training rings, and other large structures would choose a lot not so constrained.</p>
BIAWC10	Robert Lee, BIAWC	4/12/21	22.05.020	<p>2. RU Process: We believe the RU decision should be made by staff instead of the Hearing Examiner (HE), a far less costly, time consuming and legalistic process.</p> <p>We believe these decisions should be based mainly on a scientific analysis of the particular situation; that is: the functions and values of the resource, and adjacent site character, mainly its natural features: e.g., soils and geology, topography, native vegetation etc.</p> <p>An important question: is there any state law, court decision or code that requires that RU's be decided by the HE, a quasi-judicial official? Or that bars professional and qualified staff from making these mainly technical and science kind of decisions?</p>	<p>Please see the responses provided for Comments GCD14, NES02, NWC02, NWC05, BIA04, MES11, MES29, MES31, MES43, RFW12, & RFW18.</p>
BIAWC11	Robert Lee, BIAWC	4/12/21	16.16.270(C)	<p>3. RU Criteria:</p> <p>a. We also have concerns over the fairness of some of the key words/phrases/values related in the RU code, such as:</p> <p>16.16.270 A, C.2, C.3, etc.: "all reasonable and economically viable use of a property".</p> <p>The words "all" and "viable" seem more arbitrary and subjective than logical and objective. Does staff have a reliable, credible source for this language?</p> <p>The current, 2018, State Department of Commerce guidance on critical areas and this topic states, in part:</p> <p>The reasonable use permit criteria should allow for "reasonable" uses. If the criteria state that the applicant must demonstrate that no other use "is possible," or that there are "no feasible alternatives," it would conflict with the concept of a "reasonable" use as other "possible" alternatives may be so costly as to be unreasonable.</p>	<p>The RUE criteria are basically the same as the existing criteria (old (B)(2)), which come from state law and courts cases on this matter.</p> <p>And if you're going to quote the CAO handbook, might as well quote more of it, for it also says, "Unlike variances, the purpose of a reasonable use exception permit is not to allow general development within critical areas, but to allow only the minimal "reasonable" use of the property so as to avoid a constitutional taking. Four scenarios are provided to illustrate situations where a reasonable use exception might or might not be applicable:</p> <p>A – No reasonable use exception would be granted because there is sufficient space outside the critical area clearing limits.</p> <p>B – A reasonable use exception might be granted since there is insufficient space for a reasonable use. The development area would</p>

				<p>Their 3-page excerpt on RU is attached, and a link to the complete report. The Department of Commerce has primary regulatory authority over all GMA elements, including all 5 critical areas.</p> <p>In reviewing the long list of complex criteria, all 12, for approval of a RU application (Section 270.C, almost all of p 31), we note the links in several of "reasonable" with "economics", and use of "all". Why is economics a critical factor here? The test is supposed to be "reasonable".</p> <p>See items C.2, 3, 4 and 5. It appears staff is trying to make it as difficult as possible for a person to obtain a RU exception, and obtain fair relief from the arbitrary buffers per Department of Ecology guidance on wetlands and habitat buffers.</p> <p>We say the buffers are arbitrary because they are not based on a staff accepted scientific assessment of a site's critical area resources and relevant local conditions.</p>	<p>need to be limited or scaled back in size and located where the impact is minimized. The jurisdiction might consider a variance to the required setback to minimize intrusion into the protection area.</p> <p>C – A reasonable use exception would be granted for a minimal development if the property is completely encumbered and mitigation methods are applied.</p> <p>D – The jurisdiction might consider modifications to the required setback to prevent intrusion into the protection area.</p> <p>The criteria for reasonable use permits need to be consistent with case law to reduce the potential for appeals and overturned decisions. Key to being consistent with case law is careful use of the term "reasonable." Generally, the concept of "reasonable" has been left to the courts to decide, thereby making it difficult for cities to rule on whether or not a project qualifies. A reasonable use is often thought to be a modest single-family home, although some other structure might be "reasonable" depending on zoning, adjacent uses, and the size of the property.</p> <p>Some jurisdictions have allowed a reasonable use exception in only those situations where <i>all</i> economic use of a property would be denied by the critical areas regulations. Criteria that might be used to allow approval of a reasonable use exception include:</p> <ul style="list-style-type: none"> • No other reasonable economic use of the property has less impact on the critical area; • The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property; • The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant after the effective date of this regulation, or its predecessor; • The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site; • The proposal will result in no net loss of critical area functions and values consistent with the best available science; or • The proposal is consistent with other applicable regulations and standards."
BIAWC12	Robert Lee, BIAWC	4/12/21	Articles 6 and 7	<p>2. Wetland and Habitat Conservation Area Buffers:</p> <p>A. General Comments:</p> <p>Such buffers are usually the most constraining, and thus costly, elements of compliance with local CAOs for landowners and land users. They often end up consuming more usable land</p>	<p>In July 2018 the Washington Department of Ecology (DOE) modified the habitat score ranges and recommended buffer widths in their wetland buffer tables in the DOE guidance, with some minor text changes to ensure consistency. Some citizens, local environmental consulting firms, and <i>the Building Industry Association of Whatcom</i></p>

				<p>than the area of the wetland they are supposed to protect. We have seen many examples of this, large and small.</p> <p>We're familiar with many situations where buffer requirements appear arbitrary and excessive. In one situation, where a qualified private scientist classified a 6 acre area that has been hayed for at least 75 years a Category IV wetland, the lowest value. He used the 2014 DoE Rating form, 17 pages of detailed questions, some a bit subjective. The PDS staff person said he thought it was a Cat. III. This meant the buffer increased from 60 ft. to 110 ft. of hayfield, almost doubling!</p> <p>Per the draft, DoE and staff don't think that's enough. The new Wetland Buffer table, Sec. 630.E, p 67, based on DoE guidance, will require more than a doubling, from 110 to 225 ft., for a Cat. III of any size, whether the parcel is 10,000 sf or 100 acres. We think this is excessive regulation, and it's quite commonplace in the CAO.</p> <p>The County does not have to adopt DoE staff's arbitrary and excessive buffers. They are not based on the WACs. Remember, the state Department of Commerce is the only state agency with rule making authority on GMA obligations, including critical areas. DoE's main authority on wetlands is limited to controlling the filling or alterations of wetlands through the federal Clean Water Act.</p>	<p>County then requested that we amend our code to meet this new guidance, and it was docketed as PLN2019-00008.</p> <p>The project was brought before the Planning Commission on March 14, 2019. But there was confusion as to what we actually had to do at that time and what impacts it would have on development. DOE had informed staff that, while we didn't need to amend our code at that point (having just updated Ch. 16.16 (Critical Areas) (Exhibit F) that they would review our code for consistency with their guidance when Ch. 16.16 was opened for amendment again, noting that that would occur during the 2020 SMP Periodic Update.</p> <p>So at the Commission's request, staff worked with the local wetlands consultants to review the issue and try to determine what effects it might have. Three consulting firms provided analyses based on data from projects they had worked on. From these analyses, it appears that many of Whatcom County's lower quality wetlands (e.g., small Category IV wetlands in agricultural fields) would end up with smaller buffers, but that our higher quality wetlands (Categories II and III) would end up with larger buffers. (But even this is speculation, as ATSI noted that the comparison results are not statistically significant.) Thus, farmers may benefit but developers/ builders may suffer, as many of our lower quality wetlands are those found in agriculture fields, while our higher quality wetlands are typically found in non-agriculture rural areas.</p> <p>Nonetheless, given the Department of Ecology's statements that they'll be monitoring the SMP Update to ensure that we meet their latest guidance (which is based on Best Available Science), and given that Comprehensive Plan Policy 10M-2 directs the County to "Develop and adopt criteria to identify and evaluate wetland functions that meet the Best Available Science standard and that are consistent with state and federal guidelines," staff is proposing to amend §16.16.630 (Wetland Buffers) Table 1 (Standard Wetland Buffer Widths) to meet DOE guidance. As indicated, these changes would lessen buffers on lower quality wetlands, and increase them on higher quality ones.</p>
BIAWC13	Robert Lee, BIAWC	4/12/21	Articles 6 and 7	<p>B. Buffer Details in the Draft:</p> <p>We have reviewed the Wetland and Habitat drafts and the detailed comments on them submitted February 19 and 25, 2019, for Jon Maberry by Ed Miller and Liliana Hansen, both Professional Wetland Scientists (PWS). GAC members discussed these issues with Ed recently.</p> <p>We firmly agree with the scope and substance of all 14 comments in their firm's 8-page February 19 letter, including its recommendation to delete 12 of the draft changes/additions</p>	<p>Your comment will be provided to the P/C and Co/C for consideration.</p>

				<p>(attached). The Miller firm is highly regarded by many BIAWC members for their professional approach to complex environmental issues.</p> <p>We also agree with the reasonable and constructive suggestions in Jon Maberry's Prepared Motions submitted to the Planning Committee February 25, attached.</p> <p>Finally, it appears to us there's a pattern in these and other parts of the draft CAO of making the rules more restrictive and less balanced between the government's legitimate police power authority and the constitutional rights of private land owners and land users.</p>	
P6601	David Klanica, Phillips 66	4/12/21	10D-11	<p>Policy 10D-11 was added that addresses climate change: "Protect ecological functions and ecosystem-wide processes of Marine Resource Lands and critical areas in anticipation of climate change impacts, including sea level rise."</p> <p>Phillips 66 is requesting further explanation and clarification whether upland property owners who propose bulkheads, armoring, or bank stabilization to prevent shoreline erosion or sloughing due to sea level rise will be subject to new limitations or requirements that could affect the current or future use of their property.</p>	The amendments regarding shoreline stabilization regulations are found in Exhibit D (Title 23). You would want to look at both 23.40.010, Table 1, and 23.40.190.
P6602	David Klanica, Phillips 66	4/12/21	Governing Principle (C)(2)	<p>The Shoreline Management Act was adopted in 1971 to protect the shorelines of the state of Washington. Certain shorelines were designated as "shorelines of statewide significance" including those areas of Puget Sound and the Strait of Juan de Fuca and adjacent salt waters north to the Canadian line and lying seaward from the line of extreme low tide. The Act established a system where local governments would ensure that certain developments in shoreline areas would be reviewed and protected. More specifically, these agencies would review "substantial developments" which were those that would have a "significant adverse" impact on the environment including, but not limited to fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values.</p> <p>Whatcom County has proposed in its Governing Principles (GPC2)) that it will include "policies and regulations that require mitigation of adverse impact in a manner that ensures no net loss of shoreline ecological functions." Phillips 66 is concerned about how this revised policy will be implemented as a practical matter. First, it appears to go beyond the County's statutory authority outlined in the SMA. Second, Phillips 66 is concerned that, without further clarification, it may be used inconsistently across the County. For instance, what is meant by "adverse" versus the original "significant adverse"? Must all land use permits affecting the shoreline now indicate what, if any adverse impacts might occur? Phillips 66 requests that the P/C provide more information as to how the removal of the word "significant" will change day-to-day shoreline management activities.</p>	As explained in the comment bubble tagged on this change, the word "significant" is proposed for deletion as there is no such threshold under SMA. Under the SMA, all adverse impacts must be mitigated in order to help achieve NNL. (The term "significant impact" comes from SEPA.)
P6603	David Klanica, Phillips 66	4/12/21	Policies 11G-3 & 11G-4	Regarding Policy 11G-3 and Policy 11G-4 addressing the County's MOU with DAHP and Lummi Nation require the County to consult with DAHP and the Tribes. Phillips 66 is requesting additional clarification for applicant/property owner responsibilities.	Please read 23.30.050 (Cultural Resources) in Exhibit D, as that should provide the additional clarification you seek.
P6604	David Klanica, Phillips 66	4/12/21	Overall Goals & Policies	Regarding Overall SMP Goals and Objectives for the Restoration and Enhancement Element were revised as follows: "This element provides for the timely restoration and enhancement of ecologically impaired areas in a manner that achieves a net gain in shoreline ecological functions and processes above baseline conditions as of the adoption of this program."	<p>The baseline condition was set by the comprehensive update done in 2007. As part of that update the County developed:</p> <ul style="list-style-type: none"> • Vol. 1 - Inventory and Characterization Report • Vol. II - Scientific Literature Review • Vol. III - Restoration Plan

				Phillips 66 requests additional clarification and definition for "baseline condition" (e.g. baseline conditions at the time of application?).	<ul style="list-style-type: none"> Vol. IV - Cumulative Effects Analysis all of which can be found on our SMP Update webpage .
P6605	David Klanica, Phillips 66	4/12/21	Policies 11AA -1 through 11AA-7	Regarding General Policies for Climate Change/Sea Level Rise (Policies 11AA -1 through 11AA-7): please explain/provide detail for shoreline development applicant's responsibilities pertaining to climate change and sea level rise. Will development applications be required to address climate change and sea level rise as part of the SMP application or will there be separate analysis and document requirements (e.g. when will a study addressing sea level rise be required)?	These are only general policies; we are not developing CC/SLR regulations at this time.
P6606	David Klanica, Phillips 66	4/12/21	Policy 8T-1	Regarding Policy 8T-1, Phillips 66 requests clarification of the methods by which the County will coordinate with landowners to protect marine resource lands.	Well, we generally do that through email, though sometimes letters, phone calls, or meetings.
P6607	David Klanica, Phillips 66	4/12/21	Policy 8U-2	Regarding Policy 8U-2, Phillips 66 requests clarification of the types of non-regulatory programs, options, and incentives that owners of marine resource lands can employ to meet or exceed County environmental goals.	We can't provide you a precise list, as they haven't been developed yet, but they could include tax incentives, educational programs, volunteer groups, etc.
P6608	David Klanica, Phillips 66	4/12/21	Policy 8V-2	Regarding Policy 8V-2, Phillips 66 requests clarification of the process by which the County will work cooperatively with local, State, Federal and Tribal agencies, adjacent upland property owners, and the general public, as applicable, to address community concerns and land use conflicts that may affect the productivity of marine resource lands.	How would we work cooperatively? Here are 10 simply ways from entrepreneur.com to cultivate team cohesion: <ul style="list-style-type: none"> Create a clear and compelling cause Communicate expectations Establish team goals Leverage team-member strengths Foster cohesion between team members Encourage innovation Keep promises and honor requests Recognize, reward and celebrate collaborative behavior
P6609	David Klanica, Phillips 66	4/12/21		<p>The General Provisions of Title 23 indicate that shoreline development must be consistent with the SMA of 1971, the County's shoreline regulations and "other County land use regulations" (See Title 23 draft at lines 11-13). Title 23 then references certain requirements for "existing legal fossil-fuel refinery operations, existing legal transshipment facilities, expansions of these facilities, and new or expansions of renewable fuel refineries or transshipment facilities". Related definitions are also provided on page 241 at lines 20-36. Expansions of existing fossil fuel and renewable fuel facilities are required to obtain conditional shoreline permits. (See Title 23, page 137 at lines 3-10).</p> <p>As the Planning Department is aware, industry, labor and environmental organization stakeholders have been working together to develop recommended changes to the County Council's October 2019 proposed Comprehensive Plan amendments. Many of the terms and definitions included in this proposal assume that the 2019 proposed Amendments will be adopted as is. Phillips 66 requests that terms borrowed from the 2019 proposal not be adopted at this time. Considerable progress has been made by the stakeholders and is being presented to the County Council for its consideration in the near future. We request that this proposal be delayed until the final work from the ongoing stakeholder effort is accepted or rejected and the "final" definitions and framework for when conditional use permits is finalized.</p>	Yes, staff is well aware of this work and understands that changes have been made to Council's original proposal. However, at the time these documents were 1 st edited, their original proposal was all we had on which to rely, which is why the comment bubbles indicate that we will have to substitute in any changes based on Council's final adoption of the Cherry Point fossil fuel amendments.

P6610	David Klanica, Phillips 66	4/12/21		Article 7 Fish and Wildlife Habitat Conservation Area was amended to now include Type O waters. Phillips 66 requests the addition of a definition of Type O waters in the Whatcom County guidance.	This proposal has already been dropped. We suggested you look at the most recent version of Exhibit F, dated 4/5/21.
WH01	Wendy Harris	4/13/21		<p>This is in response to the question that was asked at the last Planning Commission meeting regarding "waters of the state." That is not a term used in the Shoreline Management Act. Rather, it refers to all waters under its jurisdiction as "shorelines of the state" or "shorelands of the state" and these are the appropriate terms to use for waters and exposed land under SMA jurisdiction.</p> <p>Under RCW 90.58.030, "Shorelines" means all of the waters of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes. https://apps.leg.wa.gov/RCW/default.aspx?cite=90.58.030.</p> <p>In other words, only waters with minimum quantifiable measurements (size, type, velocity, etc.) are a regulated state shoreline. This is often forgotten when we hear complaints about over-regulation and unreasonableness.</p> <p>Shorelines of the state are specifically set out in the WAC. In Whatcom County, all rivers and streams that are shorelines of the state are set out in WAC 173-18-410. https://apps.leg.wa.gov/WaC/default.aspx?cite=173-18-410.</p> <p>Lakes are listed in WAC 173-20-760 and 770. https://apps.leg.wa.gov/WaC/default.aspx?cite=173-20-770; https://apps.leg.wa.gov/WaC/default.aspx?cite=173-20-760.</p> <p>There are two kinds of shorelines of the state. The most common shoreline under SMA jurisdiction imposes a no net loss standard of review to prevent any degradation beyond baseline conditions, informed by review of best available science.</p> <p>However, particularly large and significant rivers and lakes, as well as marine waters, are designated "Shorelines of Statewide Significance" (SSWS). These have increased protection through a prioritized preference of use, similar to how we apply mitigation standards. These are set out in statute, with preferred use for natural conditions that support the long-term interests of all state residents. RCW 90.58.020(f); https://app.leg.wa.gov/RCW/default.aspx?cite=90.58.020 .</p> <p>The Whatcom County SSWS are the Nooksack River, Lake Whatcom, Baker Lake, and marine waters, including Birch Bay. R CW 90.58.030.</p> <p>The SMA also discusses "shorelands" or "shoreland areas", which includes lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes,</p>	The commenter is correct, and these are all laid out in 23.20.010 (Shoreline Jurisdiction).

				<p>and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology.</p> <p>RCW 90.58.030(2)(d), https://app.leg.wa.gov/RCW/default.aspx?cite=90.58.030.</p> <p>I recommend the SMP Handbook, which is linked on DOE's website and explains how the SMP process works. Specific issues and provisions are separate chapters in the Handbook. https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Shoreline-Master-Plan-handbook;</p> <p>https://apps.ecology.wa.gov/publications/SummaryPages/1106010.html.</p> <p>P.S. If you are wondering why I have written this, it is because I do not believe that the Planning Commission and citizen committees generally are being provided with relevant and timely information on the laws and policies they are asked to review and this fails to serve public needs and public input requirements. Unless citizen-appointed committees have a comprehensive and complete understanding of the purpose and intent of the policies and laws they are asked to review, they will remain tools of the Planning Department. Please continue to ask questions and ensure that you are provided with all the information you need upfront, before beginning a large review project.</p>	
PB04	Pam Borso	4/21/21	16.16.270	<p>Restore Reasonable Use impact area language in the Dec 4, 2020, draft Exhibit F, WCC 16.16.270 Reasonable Use Exceptions.</p> <p>I urge Whatcom County to reject the proposed change from the Planning Commission to expand the maximum impact area for single-family residences from 2,500 sf to 4,000 sf. The purpose of the reasonable use provision is to allow only the minimal "reasonable" use of property to avoid a constitutional taking when fully applying the standards of critical areas regulations. A 4,000 sf home is excessive.</p>	Your comments will be forwarded to the P/C & Co/C for their consideration.
PB05	Pam Borso	4/21/21		Incorporate the State of Washington Department of Fish & Wildlife's new riparian buffers guidance. The buffer requirements contained in the SMP are less than adequate to ensure no net loss of riparian and stream functions vital to fish, wildlife and our water supply.	Please see the response to comment #FW/WEC09.
PB06	Pam Borso	4/21/21		Incorporate regulations to prepare for accelerating sea level rise impacts. Whatcom's SMP does not incorporate protections from this peril. Not only our marine shorelines will be impacted, as Ecology writes "more frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life." 31,235 homes in Washington State may be underwater by 2100; the value of the submerged homes is an estimated \$13.7 billion.	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.
WSPA01	Holli Johnson, Western States Petroleum Association	4/21/21		The most recent staff memorandum contains several important explanations and clarifications regarding what is meant by the "baseline" condition upon which no net loss project mitigation requirements are measured and recognizes important distinctions between what is appropriate to require for project mitigation obligations and what must be voluntary or incentive-based for restoration. These principles should be built into the language of the code itself or, at a minimum, into the language of the adopting ordinance, so as not to disappear into history once the code amendments are adopted.	Staff doesn't feel this is necessary, as this explanation is based on DOE's guidance and explanatory handouts so it true throughout the state. Nonetheless, your comment will be provided to the P/C and Co/C for consideration.

WSPA01	Holli Johnson, Western States Petroleum Association	4/21/21		The County Council is currently in the final stages of review of comprehensive plan and code amendments for fossil and renewable fuel facilities and expansions. This work is the result of many months of effort and good faith negotiations between the County and interested stakeholders, including WSPA. As noted by staff in several places in the draft shoreline master program amendments, it is imperative that these shoreline master program amendments be fully consistent with the outcome of that other County Council effort. WSPA asks for an additional opportunity to review and provide input on future revisions made by staff to achieve that consistency before these amendments to the shoreline master program are adopted.	Please refer to the response to comment P6609. The P/C's recommended amendments will be forwarded to the Co/C for their review, public hearing, and adoption (during which they may make their own amendments). We would urge you to pay attention to the SMP update page (or Council's agenda page), where new drafts are posted as decisions are made.
WSPA01	Holli Johnson, Western States Petroleum Association	4/21/21	23.40.010	The Shoreline Use and Modification Use Table establishes a shoreline conditional use permit requirement for expansions of existing legal fossil fuel refinery and transshipment facilities and new or expansion of existing legal renewable fuel refinery operations or renewable fuel transshipment facilities. Conditional use permit review requirements for these facilities are being addressed in the zoning code amendments currently under review by the County Council. A separate, duplicative and potentially inconsistent shoreline conditional use permit review for the same facilities that will undergo thorough zoning code conditional use permit review is unnecessary and should be eliminated. In particular, it is not appropriate to apply shoreline conditional use permit requirements to upland activities that will be fully evaluated under the zoning code requirements applicable to those upland activities. At a minimum, this provision should clarify that such fossil fuel facilities located outside of the shoreline jurisdiction should be evaluated under the zoning code conditional use permit criteria and not pursuant to shoreline conditional use permit requirements.	What is shown in the draft Title 23 regarding this issue is what staff was provided over a year ago. Once Council makes a final decision on their separate Cherry Point amendments staff will rectify the differences. You should understand, though, that if both Title 20 and Title 23 require a CUP for a certain activity, the permits would be combined under WCC 22.05.030 (Consolidated Permit Review). Shoreline requirements would not be applied outside of the shoreline jurisdiction.
DK01	David Kershner	4/22/21	N/A	I have served on the Whatcom County Climate Impact Advisory Committee since its inception in 2018. While I am not writing in my capacity as a committee member, I have familiarized myself with the research on sea level rise related to climate change. The financial costs to Whatcom County taxpayers and property owners of not adequately planning for sea level rise are likely to be substantial. As you may know, the real estate company Zillow estimates that nearly \$14 billion worth of housing in Washington State could be submerged in the next 80 years under some climate change scenarios. The ecological costs will also be substantial, if we plan to prevent flooding of structures but not to allow migration of shoreline habitat. That habitat not only supports wildlife populations, it also provides economic benefits, such as recreation and fisheries. To reduce the economic toll of sea level rise and truly protect shorelines consistent with the intent of the Shoreline Management Act, I urge you to recommend revising regulations to ensure that newly-created lots only allow construction in areas that are not likely to be inundated in this century. Where existing lots are large enough to still allow residential, commercial, or industrial uses compatible with the zoning, I urge you to recommend a similar revision. In addition, I support revising the regulations to ensure that new or substantially changed structures be elevated above the likely sea level rise elevation for the life of the structure. Waterfront property that I own on Lummi Island would likely be constrained in its use due to these regulations. Nevertheless, new protections are the only responsible approach to shoreline planning, given what we know about sea level rise.	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.

DK01	David Kershner	4/22/21		As a former commercial salmon fisher, I also support strengthening riparian buffer restrictions consistent with recommendations of the Washington Department of Fish and Wildlife Riparian Ecosystems Volumes I and II. Salmon populations have declined in part due to riparian habitat degradation. We need to protect this habitat to restore healthy salmon populations.	Your comment will be forwarded to the P/C & Co/C for their consideration.
AC01	Alan Chapman	4/22/21		I have been involved in fisheries management, and watershed resource issues in Whatcom County for over 30 years. Regardless of the level of belief one might have in projections of climate change and sea level rise and associated storm surges, it does not make sense to allow development in areas of high risk. I urge the county, in the interests in avoiding significant damage to life, property and natural resources to not allow creation of lots where reasonable use would be subject to a high risk of damage from climate change effects, sea level rise, or reduce public trust ecological benefits within the foreseeable future. Where existing lots are large enough to still allow residential, commercial, or industrial uses compatible with the zoning, I urge you to recommend or require a similar risk avoidance approach. In addition, I support revising the regulations to ensure that new or substantially changed structures be elevated above the likely sea level rise elevation for the life of the structure.	See responses to comments FW/WEC01, FW/WEC12, WCPW08, WCPW09, RES03, RFW07, RFW11, & RFW17.
AC02	Alan Chapman	4/22/21		In the interest of protecting and achieving a net ecological gain of shoreline functions through consideration of locational relevant riparian buffer requirements that might be identified in the Washington State Department of Fish and Wildlife recent guidance on riparian guidance.	Your comment will be forwarded to the P/C & Co/C for their consideration.
PR01	Paula Rotondi	4/22/21	16.16.270	As you consider changes to the Shoreline Master Plan (SMP), I urge you to make decisions based upon what will be best for those living here twenty years from now – rather than what is best for corporations' short term profits. Please draft more stringent SMP standards. First, regarding Reasonable Use Exceptions, please reject the proposed change to expand the maximum impact area for single family residences from 2,500 square feet to 4,000 square feet. "Reasonable Use" means there must be some minimal use such as a 2,500 square foot house. If those living here twenty years from now are to have natural treasures such as salmon fishing, crabbing, the sight of Orcas, the SMP cannot afford extravagances such as a 4,000 square foot house that will do more damage to our already damaged shorelines.	Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.
PR03	Paula Rotondi	4/22/21		Second, the buffer requirements in the SMP do not adequately protect riparian and stream functions which are essential for sustaining fish, wildlife and protecting our water supply. If people living here twenty or more years from now are to have the fish and wildlife treasures we enjoy today and have adequate supplies of clean water, then the SMP must incorporate the State of Washington Department of Fish & Wildlife's new riparian buffers guidance.	Please see the response to comment #FW/WEC09.
PR03	Paula Rotondi	4/22/21		Third, please do not add to the challenges of those living here twenty years or more from today who will be dealing with increasingly severe ramifications of climate change. Climate change causes sea level to rise and also causes more extreme storms with tide surge coastal flooding and also river flooding. The Washington State Department of Ecology, the Federal Emergency Management Agency, private investment companies, insurance companies, and real estate companies (Redfin most recently) warn that many thousands of homes worth billions of dollars will be lost due to climate change exacerbated flooding. Please include regulations in the SMP to prepare for accelerating sea level rise.	Please see the responses provided for Comments FW/WEC01, FW/WEC02, FW/WEC12, WCPW07, WCPW08, WCPW09, RES03, RFW02, RFW03, RFW04, RFW06, RFW07, RFW11, RFW17, & PB06.

P6611	Dave Klanica, Phillips 66	4/22/21		<i>Extent of Jurisdiction.</i> Given the recent Department of Ecology's revocation of the Port of Kalama and Northwest Innovation Works Shoreline Conditional Use Permit, questions have been raised as to overall shoreline management authority. Whatcom County, as well as other Counties and Ecology must lawfully apply its shoreline management program requirements, particularly when seeking to require mitigation for activities that occur outside the jurisdictional shores of the State. It appears that Ecology unlawfully applied certain mitigations when the only activities within the shoreline were dredging for a new dock berth, portions of the security fence, an infiltration pond, a first-flush pond, fire suppression water storage and a containment berm for certain storage tanks. We ask that Whatcom County commit to act within its jurisdictional boundaries.	We are. Shoreline jurisdiction is addressed in §23.20.010.
P6612	Dave Klanica, Phillips 66	4/22/21		<i>Consistency with Ongoing Comprehensive Plan and Code Amendments.</i> Both WSPA and Phillip 66's previous comments request that the shoreline master program amendments be consistent with the outcome of the ongoing good faith negotiations between the County and interested stakeholders that has occurred over many months related to the Comprehensive Plan and Code Amendments. We request consistency primarily as to definitions as the development of the relevant definitions was a significant effort and even slight differences in wording across county programs could add uncertainty and confusion. Phillips 66 does not believe that all activities which will require a conditional use permit under the Code Amendments should also require a conditional use permit under the shoreline management act. The shoreline program only affects activities that are within the jurisdictional shores of the State. The Zoning requirements cover much broader non-shoreline areas. Additionally, shoreline conditional use permit requirements should not be applied to upland activities that will be fully evaluated under the zoning code requirements applicable to those upland activities. The programs also involve different decision makers and appeal paths. The differences can warrant different permitting approaches.	Please see the responses provided for Comments FW/WEC16, RES10, P6609, WSPA01
BH01	Bill Haynes, Ashton Engineering	4/22/21	23.50.140	<p>Regarding the Table for Dimensional Standards (page 147), the minimum length required to reach a moorage depth of 5' below ordinary high water.</p> <p>Ordinary High Water (OHW) elevation 314.5' has been well established on the Lake Whatcom - at least for the multiple projects I've been involved with.</p> <p>The proposed change results in a low water depth at the outer end of the dock (float) of 2'. Design low water has been established at an elevation of 311.5'.</p> <p>In a Jan. 29, 1999 letter from the WA Dept. of Ecology (DOE) to WCPDS and the WC Hearing Examiner, the DOE determined "...an in-water depth of 2.5 feet at 311.5 feet MSL is the minimum necessary draft to accommodate a standard powerboat on Lake Whatcom."</p> <p>The proposed update lowers the design depth from 2.5' to 2.0'. That depth is at the watered end of the dock only. Presumably, depths towards shore are shallower and at low water level a power boat will have less than 2' to moor in. In addition, the landward end of the float may go aground depending on the bottom contours if the outer end is at 2'. If the site is exposed to waves, the dock/boat may be tossed up and down on the lake bed.</p>	We agree; our math was wrong. It has been amended to be 5.5 feet now.

				Assuming a 6'x20' floating dock aligned with its approach ramp, I would propose the overall minimum length required to reach an inshore depth of 5' at OHW (2' depth at 311.5'). That assumes depths offshore increase.	
KC04	Kim Clarkin	4/22/21		I am concerned about the current document's lack of land use restrictions on areas that will be affected by sea level rise. I do not agree that waiting to strengthen regulations till more information is available is a good idea. In the meantime, many decisions will be made that may harm critical areas along the changing shoreline. Those decisions may also harm the people who invest in shoreline developments that storm surges could damage. This is the kind of foresight and protection citizens expect from their government—not a laissez-faire attitude such as led to the Oso disaster. Other commenters have given strong references for up-to-date scientific information the Planning Dept. can use to write pertinent and reasonable rules to distance new developments from the shoreline.	Please see the responses provided for Comments FW/WEC01, FW/WEC02, FW/WEC12, WCPW07, WCPW08, WCPW09, RES03, RFW02, RFW03, RFW04, RFW06, RFW07, RFW11, RFW17, & PB06.
KC05	Kim Clarkin	4/22/21		I do not see a reason for expanding the reasonable use exception to 4,000 ft2 in critical areas. That is a trophy home, not a reasonable exception. Critical areas are critical to wildlife, water and other things that we are trying to protect. Let's actually protect them.	Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.
KC06	Kim Clarkin	4/22/21		I strongly encourage you to use WDFW's most recent recommendations for riparian buffer widths for new developments. They are based on a thorough knowledge of rivers, valleys, and in-stream habitat development over the long term, and they should be incorporated in our long-term planning. No one is saying that existing developments have to be retired. New development should be completely different; recognizing our expanding understanding of the damage we wreak on ecosystems, we should aggressively seek to avoid that damage. I congratulate you and the Planning Department for making otherwise reasonable updates to a huge document and working toward making regulations more understandable. It has been a long slog for you, and I'm grateful for your attention to this extremely important roadmap to our future relationship with our environment. Please make it as strongly protective as you can.	Please see the response to comment #FW/WEC09.
JM01	Janet Migaki	4/22/21		The SMP, CAO, City and County Comprehensive Plans mention or refer to a quagmire of environmental agencies + regulations, as well as mention or refer to multiple intersecting jurisdictions, permits, ordinances, exemptions and waivers—all used for 'managing' waters of the State. Lake Whatcom, a significant water of the State, is not a healthy or protected source of water, yet it is used for Bellingham's drinking water. The Lake's well documented decline is troublesome since many of the lake's contaminants resist the treatment processes used by the City treatment plant and pass into public drinking water supplies. Where in the SMP and accompanying documents does it mention or discuss the primary and ultimate regulatory agency held fully accountable for protecting the water quality of Lake Whatcom water? The Lake is violating several water quality parameters +contaminants, and the water has not been tested for a full toxicology analysis since late 1990s. Does the SMP address protecting the Lake's total water quality? I know the 50-year TMDL tries to address low DO levels, with not encouraging reports to date. What about so many more	Lake Whatcom's water quality is managed through the Lake Whatcom Management Program, under the direction of the Lake Whatcom Policy Group. You can find what you're looking for at https://www.lakewhatcom.whatcomcounty.org/ .

				lake water quality issues- who is accountable and responsible for protecting and keeping the lake healthy enough to be a drinking water source?	
MRC01	Marine Resources Committee	4/22/21		<p>Thank you for taking the time to review the Whatcom County Marine Resources Committee's (WCMRC) comments on marine land protection. One role of the WCMRC is to work with county leadership and other key constituencies to help protect marine and enhance nearshore habitat through local and state ordinances and regulatory plans. The WCMRC supports regulations and policies that further protect and enhance marine shoreline areas that are vital economically, culturally, recreationally, and environmentally.</p> <p>The Whatcom County Marine Resources Committee supports the inclusion of the proposed amendment to Chapter 8: Marine Resources Lands policy section, as developed by the WCMRC, to the Comprehensive Plan.</p>	Your comment will be provided to the P/C and Co/C for consideration.
BIAWC14	Rob Lee, BIAWC Executive Officer	4/22/21		<p>We want to say thank you for:</p> <ul style="list-style-type: none"> recommending the 4,000 sq. ft. RU area, we request excluding septic systems from this square footage if covered with native landscaping. For creating the minor variance for buffer reduction of the 25% to 50%. We request that you lower the fee for minor variances. We request that any buffer reductions under Reasonable Use are decided administratively through a minor variance, Critical areas included. 	Your comment will be provided to the P/C and Co/C for consideration.
BIAWC15	Rob Lee, BIAWC Executive Officer	4/22/21	16.16.270 & 16.16.273	<p>Reasonable Use and Variances: We will comment separately on the permit process, "impact area" size, and criteria issues.</p> <p>A. Permit Procedure:</p> <p>1) <i>Present Process</i>: PDS staff has proposed major changes to the procedures. The current 2017 CAO allows staff to grant reasonable use (RU) permits for one single family house under very strict criteria if CAO rules alone would deny "all reasonable and economically viable use" of the property. The next step is a variance requiring Hearing Examiner (HE) approval.</p> <p>We were surprised to learn recently that these RU permits have become a major part of local wetland scientist's workload. This is due mainly to high buffer standards and tight limits on adjustment options. These conflicts between strict environmental rules and permitted, customary land uses are obviously not unusual.</p> <p>2) <i>Staff Proposed Process</i>: As we understand it, the current draft Exh F/CAO proposal, dated 4/2/2021, offers a 3-level process:</p> <p>a) Minor Variance: if a person only needs a 25 to 50% CAO buffer reduction, they will apply for this approval. The draft does not say whether this value is total area, width, or both. Staff decides these permits; an application and notice to neighbors is required. We do appreciate this new minor variance idea allowing staff approval. The concept should be used for other CAO issues. No further CAO permits are needed. See Section 16.16.273, p 34.</p> <p>b) A Major Variance is required if the Minor Variance is denied. One would apply to PDS, and the H/E would decide after a hearing. This is an expensive and slow process; the fees are now \$2,750 each, plus critical area reports, probably consultants doing the applications, a</p>	<p>Regarding the commenter's point A.2.b: A major variance wouldn't be required if the minor variance is denied; a major variance would be applied for if one wants to reduce a buffer more than 50%. They're not sequential: one just applies for the permit one needs.</p> <p>Similarly, regarding the commenter's point A.2.b: With staff's assistance, an applicant should know whether a major variance is attainable, given the required findings (§22.07.050). Thus, if one understood one's chances to be nil, one would just apply for an RUE; so again, they don't have to be sequential.</p> <p>The biggest difference is that through a variance, whether minor or major, one must still mitigate for impacts. Under an RUE the H/E can allow impacts without requiring mitigation. This would apply on a property that is so encumbered by critical areas that nothing could fit on the lot without causing impacts and there's no room to mitigate.</p>

				<p>consultant or attorney at the hearing, and possible legal costs if you or an opponent appeals the decision. Anyone testifying, or you, can appeal the decision to Superior Court, also costly and slow. See Section 16.16.273, p 34.</p> <p>c). A Reasonable Use Exception is the last resort, virtually identical to the Major Variance process and possible outcomes. It would also be decided by the HE, with high similar costs, and potential litigation. See 16.16.270. A and B.</p> <p>One may apply for an RUE only if their Major Variance app is denied. If you do not get adequate relief with a major variance, you must repeat the process to apply for and hope to be granted an RUE by the HE, paying like fees and costs again. You or an opponent may appeal this decision too to Superior Court from someone, at either stage.</p> <p>3) BIAWC/GAC Proposal: a simpler, less costly, and more practical alternative for all sides:</p> <p>a) Minor Variance (informal staff decision): expand the options to allow buffer adjustments above 50%. This would be determined mainly on a valid scientific analysis of site and vicinity functions and values of the affected wetland(s) and/or habitat(s), acceptable to qualified staff. Also, adjustments should be possible in both total buffer area and width. Can be appealed via RU process.</p> <p>b) Major Variance (formal HE decision): eliminate it, as redundant with the RU option, adding unneeded costs, complexity and time demands on both public and private parties.</p> <p>c) RUE: Use the draft as written; consider simplifying criteria per comments, information, and proposal below, per Item C.</p>	
BIAWC16	Rob Lee, BIAWC Executive Officer	4/22/21	16.16.270(C)(12)	<p>B. "Impact Area" size limit: For reasons stated in our April 12 2021 letter, we support the 4,000 sq. ft. value for the "impact area" to be allowed as the upper limit for buildings and other impervious surfaces, except for a minimal standard driveway. We suggest "impact area" be defined for certainty, and exclude landscaped areas using native plants and water features, and septic mounds or areas. The term "footprint" has a different meaning in the construction and real estate worlds.</p> <p>Also, there is no scientific basis for any fixed value, 2,500 or 4,000. Also, some landowners who already have a "pre-CAO" house or other building on their parcel would be severely penalized by the 2,500 value.</p>	<p>Please see the responses provided for Comments BIAWC04, BIAWC09, GCD09, GCD14, MES09, MES11, MES31, NES01, RFW12, RFW13, & RFW18.</p> <p>And the commenter is correct about the impact area having no scientific basis; rather, it is a legal basis. The courts have consistently interpreted a reasonable use (in SFR zones) to be an averaged sized house in that jurisdiction. In Whatcom County, PDS records indicate that an averaged sized house is 1,820 sf, meaning the footprint would be around 900-1,000 sf (2-story). We would expect that someone wanting a larger home or more appurtenant improvements wouldn't choose a lot that is so encumbered by critical areas that they couldn't fit it on the property.</p>
BIAWC17	Rob Lee, BIAWC Executive Officer	4/22/21		<p>C. RU Criteria: In our April 12 2021 statement, we raised several substantive questions on the "reasonableness" of some of the many RU criteria (12! see p 2-3). And we attached the full text of guidance on Reasonable Use from the state Department of Commerce again. We did omit the small p1 diagram because it was not clear how it related to the text on it or overall context.</p>	<p>Your comments will be provided to the P/C and Co/C.</p>

			<p>In general, this guidance advises "careful use" of terms such as "alternative or possible uses, etc."; and care with "economic use" etc.; see p 2-3.</p> <p>In the Synopsis of Public Comments updated April 14, 2021, staff commented at length on this guidance (pp 110-113). We have no disagreement with most comments. But in D, p 111, if you as the government are going to say: "the criteria ... need to consistent with case law...", then you have an obligation to impacted citizens to cite at least the more recent and relevant cases and point out the claimed support.</p> <p>Somewhere in the Synopsis, staff also referred to Department of Ecology guidance on this topic. I searched their site and found: "Wetland Guidance for CAO Updates"; 65p, 2016 (attached). The subject is cited on 4 pages: 8, 13 and 31-32. This excerpt is the only substantive guidance in the document, p 8:</p> <p>"Exceptions are typically addressed in a CAO in the context of reasonable use of property. For more information about this regulatory tool, see Section VII of the Critical Areas Assistance Handbook published by the Washington State Department of Commerce: http://www.commerce.wa.gov/Documents/GMSCritical-Areas-Assist-Handbook.pdf</p> <p>We think this is an important legal issue for many county landowners. We suggest you ask the PDS/Commissions' legal counsel to review these criteria and related resources and produce a memo with a recommended set of criteria for the record before you complete your recommendations on this important issue to the County Council. The adopted CAO definitions of Reasonable Use and RU Exception should be reviewed too; attached.</p>	
BIAWC18	Rob Lee, BIAWC Executive Officer	4/22/21	<p>2. Buffers for wetlands and Habitat (HCAs)</p> <p>Our April 12 testimony makes several comments on this important issue. In general, the buffers make more land unusable for all kinds of essential land uses than preserving the actual wetland.</p> <p>At this point, we have carefully reviewed the 3 most recent statements by Miller Environmental Services on the many changes proposed by staff re wetland and habitat buffer and related issues. We have discussed many with him and find that we agree in general with all the comments. A few other wetland scientists have also submitted valuable comments, e.g., NW Ecological Services and NW Wetlands Consulting.</p> <p>We respectfully recommend that Planning Commission members and staff review these comments carefully, and seriously consider acceptance. Almost all are opposed to new, more restrictive language, and do not propose new text or values.</p> <p>Many of staff's proposed changes, and opposed by Miller, would tip whatever balance the CAO now has toward preservation of more non-wetland areas, i.e., buffers. Other items objected to will make the process of obtaining some flexibility in the rules more difficult, or impossible in some cases.</p>	Your comments will be provided to the P/C and Co/C.

				<p>We submitted two of the three Miller letters with our April 12 letter: the February 19, 2021 letter (8 pages; 14 comments, and the Jon Maberry Prepared Motions, one page, 12 issues, dated February 25 2021.</p> <p>We are attaching the firm's most recent April 12, 2021 letter to this statement, 8 issues and 6 p.</p> <p>We are taking this approach because no active members of our GAC or of the BIAWC have the scientific credentials or experience to do the kind of objective analysis of the draft changes that Miller and the other scientists have done.</p> <p>From reading all the Miller comments, we conclude that if the CAO draft is adopted as written today, the Whatcom CAO will be one of the restrictive in the state, if not the most!</p>	
BIAWC19	Rob Lee, BIAWC Executive Officer	4/22/21		We do ask that the Planning Commission hold the record open for written comments for at least 2 weeks. We will review the testimony after the hearing and may want to send additional comments.	The P/C considered this request at their 4/22 hearing and denied it.
MES51	Ed Miller, Miller Environmental Services	4/22/21	16.16.900	<p>P/C Public Hearing Testimony: The WAC definition of “watercourse,” which is where the ditches would fall, talks about the presence of a high water mark and the presence of fish; it specifically excludes irrigation ditches, canals, stormwater treatment, conveyance systems, or other entirely artificial watercourses. So it seems to me that ditches, unless they carry fish or convey a prior stream, are not waters of the state. So it seems to me that ditches are not waters of the state unless they carry fish or convey a prior stream. And from a practical standpoint, regulating ditches in Whatcom: If all the ditches become a critical area with a buffer, we'd have to do critical areas report for everyone with the ditch, with a buffer. I'm not sure how that would work. If you filled a ditch, what the mitigation would be for that, would you have to create another ditch? I'm not sure how that would work. If Public Works was to create a new ditch for a new road they'd be creating a new critical area, putting a new buffer on someone's property. Additionally, most all of the ditches in Whatcom County that have these buffers are located in County right-of-way, so it just seems from a practical standpoint it's not even doable. Aside from the fact that they don't appear to be waters of the state by state definition.</p>	These comments were considered by the P/C in their deliberations and final recommendation on the definition and regulation of ditches.
TSF09	Diani Taylor, Taylor Shellfish Farms	4/22/21		<p>P/C Public Hearing Testimony: I am a 5th generation shellfish farmer with my family business, Taylor Shellfish Farms. We have been farming shellfish here in the state since 1890 and grow a variety of oysters, mussels, clams and geoduck today. Our company is vertically integrated where we farm-to-table, so we include everything from hatcheries and nurseries to farms, processing facilities, and retail and restaurants. I wanted to introduce myself after we submitted comments on the most recent draft of the SMP document. We really appreciate regulations, especially in the Shoreline Master program, that are so important to protect our environmental resources, including water quality and shoreline and our shoreline ecosystem, which is important and critical for our farms. Our comments are intended to just ensure that the regulations around aquaculture are based on the most current scientific and technical information and align with the state guidelines.</p>	Comment noted. These comments were considered by the P/C in their deliberations and final recommendation. Please see staff responses to TSF's written comments addressing their issues.
RES25	Karlee Deatherage, RE Sources	4/22/21		<p>P/C Public Hearing Testimony: The current version of the SMP is an improvement for protecting our shorelines. However, there are 3 areas to further strengthen. We submitted a letter on April 12 asking the P/C to make changes with respect to reasonable use, sea level</p>	These comments were considered by the P/C in their deliberations and final recommendation. Please see staff responses to these previously raised issues.

			<p>rise, and include the use of Department of Fish and Wildlife new riparian buffer guidance in the critical areas ordinance.</p> <p>The science is clear when it comes to sea level rise. We have been and continue to witness the impacts of rising seas. With storm surges impacting property, we will see the loss of critical shoreline habitats for salmon and forage fish through a phenomenon called coastal squeeze if we don't act now to prevent the construction of buildings or infrastructure in harm's way.</p> <p>Suggested code for amending 23.30 under general regulations that the new section was included in our letter, please restore the staff proposed language for 16.16.270 (Reasonable Use Exceptions) and improvements over the current code to require the Hearing Examiner approval for reasonable use exceptions. However, 4,000 square feet of impact area is excessive, especially when some lots could be 6,000 square feet.</p> <p>Lastly, WDSW release guidance on riparian buffers in July and also in December 2020. We hope the P/C will incorporate best available science from WDW that calls for a one hundred foot buffers known as the "200-year site potential tree height" from the edge of the 100-year floodplain or channel migration zone. This could be applied as a new section to 16.16.420 (General Standards) for frequently flooded areas or a new entry in the table for 16.16.740 (Habitat Conservation Area Buffers).</p>	
PG01	Andrew Gamble, PetroGas	4/22/21	<p>P/C Public Hearing Testimony: We do have a few concerns, questions, and clarifications about the update.</p> <ul style="list-style-type: none"> • First of all, we've noticed that there are some overlapping regulations, and we just want to point out that where there's already existing regulation in place and that the SMP need not be layered on and may not actually be necessary. • Another thing that we're looking at is that there's a potential for a maximum height requirement. We don't think that should apply to the Cherry Point UGA. • And then there's maintenance dredging. We think that should probably be a permitted and conditional use, and I think I read somewhere that it was to be prohibited and conditional. That should just be for the maintenance dredging. And then dredge material disposal management actually is already in place, so it doesn't need to be managed again. • And then some clarification on no net loss. We were looking for a bit of an explanation on the baseline condition. Is that the same as it was outlined in, I think it was a 2007 staff report, on a previous update? • And as for mitigation, is that still achieved through voluntary and incentives, or is that going be permit required mitigation? Could that be applied to legacy or historical problems and not part of a new project proposal? • And does this SMP Update establish a shoreline conditional use permit? • Then finally, we were looking for some clarification on the sea level rise policies. I heard Mr. Hansen talk about that as well. It's kind of scattered throughout. And we were looking to see if this is going to create new responsibilities for permit applicants. 	<p>These comments were considered by the P/C in their deliberations and final recommendation. But briefly:</p> <ul style="list-style-type: none"> • Staff doesn't believe there are overlapping regulations. • There does need to be height limitations so as to protect the shoreline, especially in terms of protecting views. • Maintenance dredging is proposed to be a Permitted Use. • The baseline condition was set by the 2007 SMP Update and it's corresponding background documents. • Some mitigation may be required for impacts from project proposals, but the County does not require applicants to "fix" existing issues, though applicants are always welcome to do so through voluntary mitigation. • No, Shoreline CUPs already existed in the County's SMP. • Currently only SLR policies are being considered, which would not create new responsibilities for permit applicants. However, we expect that in the not too distant future there may be regulations requiring applicants to address it in their permit analyses.

P6613	Tim Johnson, Phillips 66	4/22/21		<p>P/C Public Hearing Testimony: I would refer you to the Phillips 66, April 12th written comments as well as some supplemental comments that were submitted today via email. But I would like to highlight a few comments tonight, specifically in Exhibit C, Chapter 8.</p> <p>Regarding Policy 8T -1 we would request some clarification of the methods by which the County will coordinate with landowners to protect marine resource lands</p> <p>In policy 8 U-2 we request some clarification of the types of non-regulatory programs and options and incentives that owners of marine resource lands can employ to meet or exceed the County environmental goals.</p> <p>In Exhibit D, Title 23, the general provisions indicate that shoreline development must be consistent with Shoreline Management Act of 1971, the County Shoreline Regulations, and other County land use regulations. Chapter 23 then references certain requirements for existing legal fossil fuel refinery operations, existing legal transshipment facilities, expansions of those facilities, and new or expansions of renewable fuel refineries or transshipment facilities. And is related definitions also provided on page 241 on expansions of existing fuel, fossil fuel, and renewable fuel facilities that says they are required to obtain conditional shoreline permits. As the planning department is aware, industry, labor, and environmental organization stakeholders have been working together to develop recommendations and changes to the County Council's October 2019 proposed Comprehensive Plan amendments. There's been considerable progress made by the stakeholders, and those have been presented to the County Council for their consideration, and we request that this SMP draft be delayed until the final work from the stakeholder effort is accepted or rejected and the final definitions and framework for conditional use permit is finalized. And then finally, I would just like to note that we would request an additional opportunity to review and provide input and further revisions made by the staff before the shoreline amendments are finalized.</p>	These comments were considered by the P/C in their deliberations and final recommendation. Please see the staff responses to Phillips 66's written comments on these same issues.
WH02	Wendy Harris	4/22/21		<p>P/C Public Hearing Testimony: I support the comments that have been submitted by the environmental community; they are well founded.</p> <p>But I want to express my outrage that the P/C majority is using their position to reduce environmental protections for their own interests, ignoring what is best for the public and the planet. This is being done at a time when scientists have issued three distress letters about how we are not doing enough fast enough at the risk of biosphere collapse and extinction of most forms of life, including our own. There are many members of the public who share my views. If you are here for yourself, you're here for the wrong reason.</p> <p>I'm also appalled at the lack of science I failed to hear being discussed. I heard agenda based changes being proposed and I heard nothing regarding the science that supports this. This must have resulted in staff using science as if they were drafting a legal brief to support their argument. Why wasn't the science presented front and center to the topic being discussed? This is troubling. I understand that this round of the SMP update does not require a new review of the foundational elements necessary to determine no net loss. However, DOE indicated that there was an exception for a substantial change in Shoreline function. I believe that applies here and is very relevant since the County still lacks baseline standards, means of</p>	These comments were considered by the P/C in their deliberations and final recommendation.

			<p>quantification, and monitoring protocols. In other words, we have no means of determining no net loss, which leads to the following statement in all but the largest SEPA reviews, which is in regards to species of wildlife present: “none known to the best of my knowledge.” And by that everybody escapes having to care about or mitigate for wildlife impacts or whatever other kind of impacts are around. Other changes in events approved or pending are going to reshape the shoreline in the County jurisdiction in a manner that will make it unrecognizable from its current condition. We’ve lost one of the most important shoreline keystone species since the last SMP. The sea star numbers established how the loss of even a small number of stars had a significant impact on our healthy shoreline function. There is the Birch Bay berm. There’s the Cherry Point update that’s allowing expansion of use and of size, and that’s going to bring in more tankers which have led to the killer hornets that are here in Blaine, and they’re believed to arrive via Cherry Point tanker. And so these are vectors for aquatic invasive disease. Taken as a whole, this is enormous change and it’s a loss in shorelines of statewide significance that does not follow the prioritized shoreline use preference so that we estimate one sentence. I asked that the DOE require the County at least provide a concrete example of how the no net loss would work.</p>	
BIAWC20	Roger Almskaar, BIAWC	4/22/21	<p>P/C Public Hearing Testimony: We submitted our 2nd round of testimony by email. It was late today. Did you see our letter come in a 4-page letter and some attachments? OK, good, thank you. So that’s in the record. So I’ll move along here.</p> <p>Let’s see, I want to say thank you to Cliff Strong for his good work on the staff report, and the synopsis just made our work a lot easier in figuring out what’s going on with this extremely complicated project.</p> <p>Most of the impacts on building that we’re concerned about are coming from critical area rules, not shoreline rules. We just don’t get into the shoreline areas very much anymore.</p> <p>I want to give you something about my background, though I think most of you don’t know this. I’m a land use consultant right now, but I got into planning in 1971, being hired by Whatcom County to do the first SMP, which goes back a long time. Our final product adopted in 1976 was about 170 pages. Lots of definitions that I had to write. At that time the state guidelines from Ecology were a booklet of about 25 pages. I don’t know if Cliff has ever seen that one. Let me move on here.</p> <p>I think the most important thing for me to say tonight is we’re very concerned about the reasonable use process. And I’ve been surprised in the last few months to learn that that process has become a major part of the workload of many of the local wetland scientists. That was not true a few years ago, and I’ve been doing short plats for a long time and just hadn’t heard that. So my most important thing to say tonight is that we are really concerned about the staff’s new proposal to have three layers of permit processing to get a reasonable use exception. The first layer would be the staff of (mini?) variance, second would be a variance through the H/E, and the third would be a reasonable use through the H/E. So you’d be going there twice, paying the same amount of money, twice fees and everything. And so our proposal is to eliminate the middle level, the variance that would go to the H/E. And if you’re not satisfied with what you are able to negotiate with a staff, with your wetland scientist, work</p>	<p>These comments were considered by the P/C in their deliberations and final recommendation. Please see the staff responses to the BIAWC’s written comments on the proposed reasonable use process.</p>

				out a deal based on science, not arbitrary numbers, it's politics. But then you can go to the H/E. So we're agreeing to support that. It's still going to be expensive for people, but at least it's not double the cost as it is. But please look at that in detail as quite a bit in our paper on that.	
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Initial Determination

2019 Whatcom County Locally Initiated SMP Amendment– Public Comment Summary

The following comments were received during the Ecology comment period from October 28, 2019 to November 27, 2019. The comments are associated with the above-referenced 2019 SMP amendment which has now been incorporated into this SMP periodic review amendment at the request of Whatcom County. Since the changes from the 2019 amendment are being rolled into this amendment, the comments have been included here.

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
01	WCC 23.90.060.B – Vegetation Conservation Regulations	Tani Sutley	<p>Regarding Hazard Tree Definition Changes and 23.90.060(B):</p> <p>Since this limited amendment is intended to consolidate the multiple location code definitions of “hazard trees,” can you clarify if the SMP regulation 23.90.060B(9) will still supersede CAO hazard tree removal regulations in shorelines as determined by the Whatcom County Hearing Examiner?*</p> <p>“Vegetation conservation standards do not apply to the removal of hazard trees pursuant to WCC 16.16.230.F.” WCC 23.90.060B(9)</p> <p>“Shoreline developments shall comply with the vegetation conservation policies of this program through compliance with the critical areas standards of WCC 16.16.335, 16.16.360, 16.16.630, and 16.16.740 for protection and maintenance of critical areas and buffer vegetation.” WCC 23.90.060.B.1</p> <p><i>*Ecology Note: It is assumed that the commenter is referring to a January 2019 decision by the Whatcom County Hearing Examiner (Norman Chang v. Whatcom County APL2018-0004) that hazard tree removal is allowed outright in shoreline jurisdiction without any review or mitigation even when located in geologic hazard areas.</i></p>	<p>Yes, the whole point of the amendments of Ord2019-013 and Ord2019-057 was to close this loophole by making the text less ambiguous and less likely to be misinterpreted.</p> <p>The intent of the amendments in Ord2019-013 regarding the definition of “hazard tree” was to develop one clear, unambiguous definition that is consistent in the zoning code, Critical Areas Ordinance, and the Shoreline Management Program. This was followed by Ord2019-057, which tightened up the rules for tree canopy retention in the Lake Whatcom and Water Resource Protection Overlay Districts, including within the shoreline jurisdiction and critical areas. These amendments made it clear that, unless it’s an emergency, an arborist’s report is required to remove any tree canopy, even hazard trees.</p> <p>Ms. Sutley has found some bad references, however.</p> <p>WCC 16.16.230(F) was a reference to the 2007 CAO, in which removing hazard trees from critical areas was exempt (“The landowner may cut hazard trees within critical areas and buffers.”). The 2017 CAO update deleted that exemption, and instead made “The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional” an Activity Allowed with Notification (WCC 16.16.235(B)(4).</p> <p>WCC 23.90.060(B)(1) should probably now read:</p> <p>“Shoreline developments shall comply with the vegetation conservation policies of this program through compliance with the critical areas standards of WCC 16.16.335, 16.16.33560, 16.16.630, and 16.16.740 for protection and maintenance of critical areas and buffer vegetation.”</p>

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
				<p>Or maybe more succinctly (and to cut down on potential bad cross references):</p> <p>“Shoreline developments shall comply with the vegetation conservation policies of this program through compliance with the critical areas standards of WCC 16.16.335, 16.16.360, 16.16.630, and 16.16.740 for protection and maintenance of critical areas and buffer vegetation.”</p> <p>Such bad cross references can be common over time, and our attorney and Clerk have informed us that having a bad cross reference does not negate the intent of the regulation. As the Ms. Sutley knows, we are currently undergoing a periodic update of the SMP, and many of these sections are being rewritten and any cross references updated. We will fix these though either the periodic update or through “scrivener’s error” rules, which allows us to fix bad cross references without an ordinance.</p> <p>An additional note is that WCC 23.90.060(B)(9) is interpreted by our Natural Resources Supervisor to mean that while the removal of hazard trees in the shoreline setback is exempt from the requirements for conservation of vegetation and shoreline use regulations, it does not mean that those activities are exempt from mitigation in 23.90.030 or 16.16.260. Mitigation would still be required.</p>
02	WCC 23.90.060.B – Vegetation Conservation Regulations	Tani Sutley	<p>WCC 16.16.230.F is referenced by WCC 23.90.060 but it is no longer the original provision before the last CAO comprehensive update removed the CAO allowance to cut danger trees in critical areas.</p> <p>Question: Should this be corrected so 23.90.060.B.9 correctly identifies that the previous language in 16.16.230.F was deleted or do you really want it to now include residential maintenance exceptions as 16.16.230.F now references?</p> <p>2005-068 Ordinance said: 16.16.230 F – The landowner may cut hazard trees within critical areas. (Exemption)</p>	<p>See the response to Item 01, as it addresses this bad cross reference (which should point to WCC 16.16.235(B)(4)).</p> <p>Such bad cross references can be common over time, and our attorney and Clerk have informed us that having a bad cross reference does not negate the intent of the regulation. As the Ms. Sutley knows, we are currently undergoing a periodic update of the SMP, and many of these sections are being rewritten and any cross references updated. We will fix these though either the periodic update or through “scrivener’s error” rules, which allows us to fix bad cross references without an ordinance.</p>
03	WCC 23.90.060.B – Vegetation	Tani Sutley	Regarding Hazard Tree Definition Changes and 23.90.060(B)(6), 16.16.235.G and 16.16.235(B)(4)	Yes, Ms. Sutley found another bad cross reference (perhaps we should hire her to proof all cross references☺).

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
	Conservation Regulations		<p>WCC 23.90.060(B)(6) <i>Clearing, pruning and re-vegetation of buffer areas, except landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, may be conducted in accordance with the regulations in WCC 16.16.235.G.</i></p> <p>B16.16.235G does not exist.</p> <p>However, the CAO provision 16.16.235(B)(4) now includes hazard tree Activities Allowed with Notification and states: “The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional.”</p> <p>Questions:</p> <p>Since Whatcom County is amending hazard tree definitions for the SMP shouldn’t WCC 23.90.060(B)(6) also be amended as well?</p> <p>Is Whatcom County assuming provision 16.16.235(B)(4) supersedes WCC 23.90.060B(6) because of WCC 23.10.08? (Severability)”</p>	<p>WCC 23.90.060(B)(6) should now point to WCC 16.16.235(B)(5), not WCC 16.16.235(G) to read:</p> <p>“Clearing, pruning and re-vegetation of buffer areas, except landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, may be conducted in accordance with the regulations in WCC 16.16.235(B)(5)(G).”</p> <p>Such bad cross references can be common over time, and our attorney and Clerk have informed us that having a bad cross reference does not negate the intent of the regulation. As the Ms. Sutley knows, we are currently undergoing a periodic update of the SMP, and many of these sections are being rewritten and any cross references updated. We will fix these though either the periodic update or through “scrivener’s error” rules, which allows us to fix bad cross references without an ordinance.</p>
04	WCC 16.16.900 – Definitions	Tani Sutley	<p>In shorelines, Hazard Tree as defined by the new proposed definition could allow all large trees removed on small lots for home construction to prevent damage to the new residential home and also existing homes where trees have grown and now meet the definition of hazard tree.</p> <p>Question: Is this correct or not correct and why?</p> <p>As now proposed for amendment, a hazard tree might include any tree that poses “potential damage to permanent physical improvements to property causing personal injury and consequences” while the old definition for shorelines only included “<i>any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors</i>”.</p>	<p>No, it is not correct. The newer definition of “hazard tree,” which currently applies countywide, but through this amendment would also include areas within the shoreline jurisdiction, would be:</p> <p>“Hazard tree” means a tree whose risk evaluation, as determined through a Whatcom County approved tree risk assessment method, is high. Risk evaluation is the combined measurement of: tree failure identification, probability of failure, potential damage to permanent physical improvements to property causing personal injury, and consequences. A tree that constitutes an airport hazard is considered a hazard tree. A hazard tree whose failure is imminent and consequences of damage to permanent physical improvements to property causing personal injury are significant is considered an emergency. “Imminent” in this instance means failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. Imminent may be determined by a qualified consultant (defined in this section) or when mutually agreed upon by a landowner and Whatcom County.</p>

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
				This definition places a stricter onus on the property owner to prove a hazardous condition via a professionally acceptable evaluation method. It would make it less likely that “all large trees removed on small lots for home construction to prevent damage to the new residential home and also existing homes where trees have grown.”
05	WAC 173-26-110 – SMP Amendment Submittal Requirements	Tani Sutley	<p>Regarding WAC 173-26-110(8) “A summary of amendments made in response to comments received.”</p> <p>What amendments were made in response to comments received as required by WAC 173-26-110(8)?</p> <p>Were WAC 173-26-110(8) requirements documented with the submittal of this limited amendment?</p>	Staff has no record of any public comments received during the processing of these amendments.
06	WCC 23.10.030 – Governing Principles	Tani Sutley	<p>The completed checklist did not demonstrate compliance with the No Net Loss provisions of WAC 173-26-201(1)(c)(iv) and WCC 23.100.03 but did state:</p> <p><i>“New definition of hazard tree ensures that mitigation is required for removal within shoreline jurisdiction.”</i></p> <p>WAC 173-26-201(1)(c)(iv)</p> <p><i>(c) Master program amendments may be approved by the department provided:</i></p> <p><i>(iv) Master program guidelines analytical requirements and substantive standards have been satisfied, where they reasonably apply to the amendment. All master program amendments must demonstrate that the amendment will not result in a net loss of shoreline ecological functions.</i></p> <p>WCC 23.10.03 This Program and any future amendment hereto shall ensure not net loss of shoreline ecological functions and processes on a programmatic basis in accordance basis in accordance with the baseline functions present as of the date of adoption of this Program, February 27, 2007:</p> <p>Questions:</p>	<p>Amending the definition of “hazard tree” to place a stricter onus on the property owner to prove a hazardous condition via a professionally acceptable evaluation method (Ord2019-013), as well as making the tree removal regulations more clear (Ord2019-057) would result in fewer non-hazard trees being cut in critical areas and the shoreline/HCA buffer. This could only result in less loss of ecological function than previously, whereby through bad code construction some applicants successfully argued to the Hearing Examiner that the code did not apply to their situation.</p> <p>Whatcom County’s NNL compliance program consists of our regulations, mitigation for direct impacts, the County’s code enforcement program, and implementation of the 2007 SMP Restoration Plan.</p>

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
			<p>How does this limited amendment meet the requirements of WCC 23.10.03 and WAC 173-26-201(1)(c)(iv)?</p> <p>What current NNL documented compliance program is WC using to demonstrate and ensure no net loss of shoreline ecological functions and processes on a programmatic basis as required by WCC 23.10.03 and WAC 173-26-201(1)(c)(iv) and that the “<i>New definition of hazard tree</i>” actually “ensures that mitigation is required for removal within shoreline jurisdiction.”</p>	
07	WCC 23.90.060.B.6 – Vegetation Conservation Regulations	Tani Sutley	<p>No Net Loss Alternative Documentation</p> <p>Since the provisions in WCC 23.90.060(B)(6) is relying on conde in the CAO that does (sic) exist then it is unclear to me how NNL is achieved.</p> <p><i>Clearing, pruning and re-vegetation of buffer area, except landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, may be conducted in accordance with the regulations in WCC 16.16.235.G. 16.16.235G does not exist</i></p> <p>It may be difficult to document compliance with No Net Loss if there are conflicts in the existing code preventing implementation of new regulations. Whatcom County did not submit any amendments with this current Locally Initiated Amendment to the SMP to fix consistency issues between the CAO and the SMP.</p> <p>Is WCC 23.10.08 currently being used to implement new SMP amendment regulations that conflict with existing SMP regulation problems that the County has decided not to amend?</p> <p>Can Whatcom County demonstrate and ensure No Net Loss provisions of WCC 23.10.03 and WAC 173-26-201(1)(c)(iv) by documenting WCC 23.10.08 as a tool of issuing permits and enforcement instead of using consistency in code since there seems to be some reluctance to amendment (sic) the inconsistency issues?</p> <p>23.10.08 Severability</p> <p>The Act and this Program adopted pursuant thereto comprise the basic state and County law regulating use of shorelines in the county. In the</p>	<p>NNL is achieved with mitigation in WCC 23.90.030 and 16.16.260. Again, the reference to 16.16.235(G) is a bad cross reference, as pointed out above.</p> <p>Such bad cross references can be common over time, and our attorney and Clerk have informed us that having a bad cross reference does not negate the intent of the regulation. As the Ms. Sutley knows, we are currently undergoing a periodic update of the SMP, and many of these sections are being rewritten and any cross references updated. We will fix these though either the periodic update or through “scrivener’s error” rules, which allows us to fix bad cross references without an ordinance.</p>

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
			event provisions of this Program conflict with other applicable county policies or regulations, the more restrictive shall prevail . Should any section or provision of this Program be declared invalid, such decision shall not affect the validity of this Program as a whole.	
08	WCC 23.10.060 – References to plans, regulations or information sources	Tani Sutley	<p>“Whatcom County submitted a letter dated August 2, 2019 with their Locally Initiated SMP update amendment regarding the changes being made to their SMP WCC 23.10.060 References to plans, regulations or information sources.</p> <p><i>“Note that it also clears up some of the language regarding which portions of the CAO are not applicable in the shoreline jurisdiction, as we spoke about during the last limited update.”</i></p> <p>However, the changes presented to Ecology in this letter are NOT the changes proposed for some future SMP update during the last SMP update. Those changes are documented on the 2017 Update Responsiveness Summary, which included:</p> <p>“There are also 3 sections that our Natural Resources Supervisor now believes should be included in the exemption (WCC 16.169.230 (Exempt Activities), WCC 16.16.235 (Activities Allowed with Notification), WCC 16.16.250 (Submittal requirements and critical area review process), WCC 16.16.270 (Reasonable Use Exceptions), 16.16.273 (Variances), 16.16.275 (Nonconforming Uses/Buildings), 16.16.280 (Appeals), and 16.16.285 (Penalties and Enforcement).” See attached.</p> <p>Whatcom County and Ecology made an agreement that Whatcom County would change WCC 23.10.060 References to plans, regulations or information sources at some future date instead of using the procedures of required or recommended changes documented in the guidelines used by Ecology. WAC 173-26-120</p> <p>By delaying a very simple change, the result was confusing and I fault Ecology for not following their own guidelines.</p> <p>WAC 173-26-120(ii) Either approve the proposal as submitted, recommend specific changes necessary to make the proposal</p>	<p>The current amendment does not include the NR Supervisors previous suggestion; it was dropped for the time being to the make this amendment move along faster.</p> <p>However, the previous suggestion is being considered through our current periodic update.</p>

Comment #	SMP Section	Commenter	Comment / Concern	Local Government Response / Rationale
			<p>consistent with chapter 90.58 RCW policy and its applicable guidelines, or deny the proposal</p> <p>Ecology should now require the changes agreed upon since Whatcom County has already documented their intent. I assume Whatcom County simply forgot what they agreed to do.</p> <p>I simply do not understand Ecology’s reluctance to use recommended or required changes for amendment updates to the SMP as documented in the Guidelines procedures.</p> <p>I hope Ecology will start being more transparent.</p>	

Initial Determination



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-622

File ID:	AB2021-622	Version:	1	Status:	Agenda Ready
File Created:	10/26/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Resolution (FCZDBS) Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@comcast.net

TITLE FOR AGENDA ITEM:

Resolution adopting the 2022 budget for the Whatcom County Flood Control Zone District and Subzones (Council acting as the Flood Control Zone District Board of Supervisors)

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Consistent with RCW 86.15.140, the FCZD must adopt an annual budget that includes the County-wide district and the subzones of the District. The attached resolution establishes the overall budget consistent with the appropriation items outlined in the law.

Public Works respectfully requests that the FCZD Board of Supervisors adopt the attached resolution to establish a 2022 budget for the County-wide District and the following subzones:

- Acme/Van Zandt Subzone
- Lynden/Everson Subzone
- Sumas/Nooksack/Everson Subzone
- Samish Watershed Subzone
- Birch Bay Watershed and Aquatic Resources Management District

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
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Attachments: Staff Memo, Proposed Resolution

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

**Jon Hutchings
DIRECTOR**



Administration

Civic Center
322 N. Commercial Street, Suite 210
Bellingham, WA 98225-4042
Telephone: (360) 778-6217
www.whatcomcounty.us
JHutchings@co.whatcom.wa.us

TO: The Honorable Whatcom County Flood Control Zone District Board of Supervisors

THROUGH: Jon Hutchings, Public Works Director *JH*

FROM: Gary S. Stoyka, Natural Resource Program Manager
Paula J. Harris, River and Flood Division Manager

DATE: October 18th, 2021

RE: 2022 Flood Control Zone District Budget

Enclosed is a resolution establishing the 2022 budget for the Whatcom County Flood Control Zone District (FCZD) for your review and adoption. Supporting documentation detailing the programs and projects included in the budget are also attached.

Requested Action:

Public Works respectfully requests that the FCZD Board of Supervisors adopt the attached resolution to establish a 2022 budget for the County-wide District and the following subzones:

- Acme/Van Zandt Subzone
- Lynden/Everson Subzone
- Sumas/Nooksack/Everson Subzone
- Samish Watershed Subzone
- Birch Bay Watershed and Aquatic Resources Management District

Background and Purpose:

Consistent with RCW 86.15.140, the FCZD must adopt an annual budget that includes the County-wide district and the subzones of the District. The attached resolution establishes the overall budget consistent with the appropriation items outlined in the law.

PROPOSED BY: Public Works

INTRODUCTION DATE: 11/09/2021

RESOLUTION NO. _____

(A Resolution of the Whatcom County Flood Control
Zone District Board of Supervisors)

**ADOPTING THE 2022 BUDGET FOR THE
WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT AND SUBZONES**

WHEREAS, RCW 86.15.140 requires that the Board of Supervisors of each flood control zone district and subzone adopt an annual budget for the zone; and

WHEREAS, the statute further requires that the zone or subzone budget be divided into four appropriation items: overhead and administration; maintenance and operation; construction and improvements; and bond retirement and interest; and

WHEREAS, under the appropriation item for construction and improvements, the Board is required to list each flood control improvement or storm water control improvement planned for the budget year and the estimated expenditure for each during the next year; and

WHEREAS, the budget may only be adopted after a public hearing for which proper notice has been given; and

WHEREAS, Fund No. 169 is managed by the County on behalf of the Whatcom County Flood Control Zone District for purposes of funding flood control, storm water management, and other water resources work by the County that are consistent with the powers of the District under RCW 86.15 and RCW 39.34.190; and

WHEREAS, funds obtained by the County through grants or cooperative agreements for flood control and other water resources work are also managed through Fund No. 169; and

WHEREAS, the 2022 budget proposed by the County Executive for the Whatcom County Flood Control Zone District includes proposed expenditures out of Fund 169 to pay for flood control, storm water management, and other water resources work consistent with the powers of the District under RCW 86.15 and RCW 39.34.190;

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors as follows:

Section I. Approval of the Budget

The Board hereby adopts the 2022 budget for the Flood Control Zone District Fund No. 169 in the amounts presented below and further described Exhibit A of this resolution:

OVERALL BUDGET SUMMARY

Budget Code	Program	RCW Appropriation Item	2022 Budget	
			Revenues	Expenditures
169100	Administration	Overhead & administration	\$5,210,000	\$877,331
169119	Natural Resources Administration	Overhead & administration	-	624,949
169120	AIS Administration	Overhead & administration	-	-
169121	Water Planning Administration	Overhead & administration	5,586	129,272
169100	Stormwater Administration (Transfer)	Overhead & administration	-	729,811
169102	Flood Response	Maintenance & operations	-	110,000
169104	Flood Planning	Maintenance & operations	70,000	940,000
169106	Technical Assistance	Maintenance & operations	-	75,000
169108	NFIP and CRS	Maintenance & operations	12,000	127,000
169110	Early Warning	Maintenance & operations	4,413	133,000
169119	Natural Resources Operations	Maintenance & operations	744,139	1,677,710
169120	AIS Operations	Maintenance & operations	-	192,944
169121	Water Planning Operations	Maintenance & operations	414,414	954,642
169100	Stormwater Lake Whatcom Operations (Transfer)	Maintenance & operations	-	346,000
169700	Stormwater NPDES Phase II	Maintenance & operations	-	160,320
169100	Stormwater Lake Whatcom Capital (Transfer)	Construction & improvements	-	-
169112	Repair and Maintenance	Construction & improvements	715,000	1,692,439
169114	Flood Hazard Reduction	Construction & improvements	3,169,846	4,437,456
Total 2022 FCZD Budget			\$10,345,398	\$13,207,874
			\$(2,862,476)	

Code	Program		Revenues	Expenditures
16923	Acme/VanZandt Subzone	Overhead & administration	-	\$1,500
16925	Birch Bay Subzone	Overhead & administration	872,200	387,921
16921	Lynden/Everson Subzone	Maintenance & operations	45,460	32,500
16922	Sumas/Nooksack/Everson Subzone	Maintenance & operations	135,210	11,500
16923	Acme/VanZandt Subzone	Maintenance & operations	25,225	6,181
16924	Samish Watershed Subzone	Maintenance & operations	22,570	22,150
16925	Birch Bay Subzone	Maintenance & operations	-	146,400
16921	Lynden/Everson Subzone	Construction & improvements	-	45,000
16922	Sumas/Nooksack/Everson Subzone	Construction & improvements	-	199,125
16923	Acme/VanZandt Subzone	Construction & improvements	-	30,000
16925	Birch Bay Subzone	Construction & improvements	83,125	803,000
Total of 2022 FCZD Sub-Zone Budgets			\$1,183,790	\$1,685,277
			\$(501,487)	

Section II. Provisions Restricting Expenditures, Authorizing Actions, and Setting Expectations.

For purposes of purchasing and award, projects listed in the attached exhibit (B) FCZD Construction and Improvements Work Plan shall be administered pursuant to WCC Chapter 3.08.100 A.(2) and A.(3) using the process prescribed for capital budget appropriations. Contracts for goods and services on individual items or projects listed in Exhibit (B) may be exceeded by up to 10%, provided expenditures in total do not exceed the total appropriation for the FCZD construction and improvement Work Plan.

APPROVED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY FLOOD CONTROL ZONE
DISTRICT BOARD OF SUPERVISORS
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Clerk of the Council

Barry Buchanan, Chair of Board of Supervisors

APPROVED AS TO FORM:

Approved by email/C Quinn/M Caldwell
Senior Civil Deputy Prosecuting Attorney

Flood Control Zone District 2022 Budget

OVERALL BUDGET SUMMARY

Budget Program Code	Approved 2021 Budget		Supplemented 2021 Budget		2021 Year End Projection		Proposed 2022 Budget		2022 ASR's	
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures
169100 Administration	\$ 5,043,000	\$ 777,107	\$ 5,043,000	\$ 784,093	\$ 5,020,258	\$ 902,333	\$ 5,210,000	\$ 859,831		\$ 17,500
169100 Transfers - To Stormwater		\$ 1,459,512		\$ 1,598,954		\$ 1,279,163		\$ 1,075,811		
169102 Flood Response	\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 55,000	\$ -	\$ 110,000		
169104 Flood Planning	\$ 258,000	\$ 885,000	\$ 258,000	\$ 927,575	\$ 115,000	\$ 283,025	\$ 70,000	\$ 940,000		
169106 Technical Assistance	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000		
169108 NFIP and CRS	\$ 16,000	\$ 177,000	\$ 16,000	\$ 177,000	\$ 10,000	\$ 165,000	\$ 12,000	\$ 127,000		
169110 Early Warning	\$ 4,500	\$ 138,100	\$ 4,500	\$ 138,100	\$ 4,413	\$ 109,000	\$ 4,413	\$ 133,000		
169112 Repair and Maintenance	\$ 535,000	\$ 977,439	\$ 385,000	\$ 827,439	\$ 264,115	\$ 623,039	\$ 715,000	\$ 1,692,439		
169114 Flood Hazard Reduction	\$ 2,632,540	\$ 4,517,535	\$ 4,157,143	\$ 6,451,950	\$ 2,957,851	\$ 4,196,439	\$ 3,169,846	\$ 4,437,456		
169119 Natural Resources	\$ 557,361	\$ 2,015,894	\$ 563,639	\$ 2,040,950	\$ 499,278	\$ 2,115,916	\$ 744,139	\$ 2,227,659		\$ 75,000
169120 Aquatic Invasive Species	\$ -	\$ 152,217	\$ -	\$ 152,217	\$ -	\$ 152,217	\$ -	\$ 164,944		\$ 28,000
169121 Water Planning	\$ 175,000	\$ 728,546	\$ 175,000	\$ 832,246	\$ 225,000	\$ 801,436	\$ 175,000	\$ 548,914	\$ 245,000	\$ 535,000
169700 NPDES	\$ -	\$ 160,320	\$ -	\$ 160,320	\$ -	\$ 80,000	\$ -	\$ 160,320		
TOTAL	\$ 9,221,401	\$ 12,173,670	\$ 10,602,282	\$ 14,275,844	\$ 9,095,915	\$ 10,837,568	\$ 10,100,398	\$ 12,552,374	\$ 245,000	\$ 655,500
(DECREASE)/INCREASE IN FUND BALANCE	\$ (2,952,269)		\$ (3,673,563)		\$ (1,741,653)		\$ (2,451,976)		\$ (410,500)	

Notes:

Assumes no fall flood in 2021; 2022 budget includes funding for flood response and new repair
2021 Txfr to Stormwater Projection includes a 20% budget lapse

2021 Anticipated: 14% Rev Lapse 24% Exp Lapse

Starting Balance		8,084,364	1/1/2021
Projected Net Annual Activity		-1,741,653	
Projected Balance		6,342,711	1/1/2022
Budgeted Net Annual Activity		-2,451,976	
Add back expense lapse of 20% (with related grant income reduction)		1,876,506	
Projected Balance		5,767,240	1/1/2023
ASR's	Rev	Exp	
6430 Auditor Fee Increases	\$ -	\$ 12,500	\$ (12,500) 169100
6432 Software Maint Contracts	\$ -	\$ 5,000	\$ (5,000) 169100
6427 WSU Extension	\$ -	\$ 25,000	\$ (25,000) 169119
6426 Collaborative Water Solutions Process 2021	\$ 125,000	\$ 375,000	\$ (250,000) 169121
6431 AIS Enforcement Funding	\$ -	\$ 28,000	\$ (28,000) 169120
6434 Domestic Water Use Efficiency Program	\$ -	\$ 40,000	\$ (40,000) 169121
6435 Climate Action Planner	\$ 120,000	\$ 120,000	\$ - 169121
6436 PIC Livestock Technical Assistance Prog	\$ -	\$ 50,000	\$ (50,000) 169119
Balance after ASR's		245,000	655,500
		5,356,740	1/1/2023 (after ASRs)

DETAIL FOR FCZD PROGRAM AREAS

FLOOD MAINTENANCE AND OPERATIONS

Flood Response (169102)				Assumptions/Notes
	Proposed 2022 Budget			
	Revenues	Expenditures		
Wage and Benefits		\$ 10,000		
Sand and sandbags		\$ 35,000		Includes pre-deployed and sand bags for training
Preparedness training		\$ 5,000		Road and M&O employees and equipment
Sector observers during response		\$ 40,000		Road employees wages and benefits for 1 significant flood event
Construction contracts		\$ 20,000		During and immediately following response
TOTAL	\$ -	\$ 110,000		Budget based on 2009 flood with cost & wage increases
NET IMPACT TO FUND BALANCE	\$ (110,000.0)			2021 YE projection assumes small fall flood
Flood Planning (169104)				Assumptions/Notes
	Proposed 2022 Budget			
	Revenues	Expenditures		
Lower Nooksack				
Wage and Benefits		\$ 130,000		
CFHMP refinement/update				
Facilitation		\$ 75,000		2021 BA inc 37,550 CA for CollinsW; need 2022 BA to cover est balance (35000) and amendment
Hydraulic modeling/alternatives analyses		\$ 60,000		2021 PO will CA (est bal is 10k) 2022 for FEQ model support
FLIP process support/Engineering design/Plan		\$ 300,000		2021 BA inc 5025 CA for NWIC; Herrera balance will CA into 2022 (2021 PO): NEP grant ends in 2021
Sediment management		\$ 200,000		likely to get under contract in 2022
Reach 1 Sediment	\$ -	\$ 75,000		2020 PO for \$85.7 balance + amendment for updated survey; 2021 BA for follow-up work with reach team
FLIP support for ag (AWB, farmer stipends)	\$ 70,000.0	\$ 75,000		Pass through funding for ag consultant, farmers stipends and tribes- revenues from FbD
High water mark survey		\$ 25,000		
TOTAL	\$ 70,000.0	\$ 940,000		
NET IMPACT TO FUND BALANCE	\$ (870,000.0)			
Technical Assistance (169106)				Assumptions/Notes
	Proposed 2022 Budget			
	Revenues	Expenditures		
Wage and Benefits		\$ 75,000		
Postage for Special District reassessments		\$ -		CDID#5 was updated in 2020 with improved parcel coverage
TOTAL	\$ -	\$ 75,000		
NET IMPACT TO FUND BALANCE	\$ (75,000.0)			
National Flood Insurance Prgm (169108)				Assumptions/Notes
	Proposed 2022 Budget			
	Revenues	Expenditures		
Wage and Benefits		\$ 100,000		
FEMA Floodplain mapping	\$ -	\$ 12,000		Assumes LNR mapping in 2022 - expenditures for public meeting notice
Permit reviews	\$ 12,000.0	\$ -		Flood permit fees
Public education/CRS activities	\$ -	\$ 15,000		CRS mailings
TOTAL	\$ 12,000.0	\$ 127,000		
NET IMPACT TO FUND BALANCE	\$ (115,000.0)			
Early Warning System (169110)				Assumptions/Notes
	Proposed 2022 Budget			
	Revenues	Expenditures		
Wage and Benefits		\$ 1,000		
Nooksack River gages - USGS	\$ -	\$ 105,000		
Everson MainSt stage gage _ USGS	\$ 4,413.0	\$ -		Canadians reimburse cost to maintain gage; AVZ pays for Jones gage directly
Emergency access to SNOTEL	\$ -	\$ 5,000		
Equipment for gage upgrades/repairs	\$ -	\$ 12,000		Equip at NF gage may need replacing
Repairs and maintenance	\$ -	\$ 10,000		
TOTAL	\$ 4,413.0	\$ 133,000		
NET IMPACT TO FUND BALANCE	\$ (128,587.0)			

Flood Control Zone District
2022 Budget
Work Plan and Supporting Documentation

FLOOD CONSTRUCTION AND IMPROVEMENTS			
Repair and Maintenance (169112)			
	Proposed 2022 Budget		
	Revenues	Expenditures	Assumptions/Notes
Wage and Benefits		\$ 185,000	
Misc			
Construction Projects			
Emergency/new projects as needed	\$ 50,000.0	\$ 350,000	Assumed costs for responding to flood/new repairs (assumes no fall 2021 flood)
Miscellaneous repair projects	\$ -	\$ 50,000	Placeholder for small projects; fall 2019 flood assumed
Marine Drive Levee Repair 2020 damage (720004)	\$ 251,250.0	\$ 300,000	Surveyed in 2020, construction in 2022 (FEMA)
Truck Road 2020 Damage (720008)	\$ 253,750.0	\$ 250,000	2021 contract for alt analysis; 2021 amendment for design: rev are 75% FEMA and 12.5% Roads
Everson Overflow Pipeline Bank Stabilization (720009)	\$ 135,000.0	\$ 150,000	Alt anal in 2021; design in 2022; FEMA reimburses 75%
Bertrand Creek Levee Stabilization (721002)	\$ 25,000.0	\$ 250,000	Start design in 2021 and construct in 2022; potential cost-share from DD#4
Mitigation Planning/Implementation			
Jail crew	\$ -	\$ 117,439	Jail crew labor for FCZD and SWIF projects; available to diking or subzones
Reveg planning/coordination	\$ -	\$ 30,000	New 2-year contract in 2021
Reveg/misc supplies	\$ -	\$ 10,000	Increased to cover plant replacement costs for Deming and other past projects as needed
TOTAL	\$ 715,000.0	\$ 1,692,439	
NET IMPACT TO FUND BALANCE	\$ (977,439.0)		
Flood Hazard Reduction (169114)			
	Proposed 2022 Budget		
	Revenues	Expenditures	Assumptions/Notes
Wage and Benefits		\$ 315,000	
Misc	\$ -		
Swift Creek			
Bank stabilization/channel excavation	\$ -	\$ 114,624	300k commitment per year; 150k Roads; remainder cost-shared 70/30 b/w FCZD and SNE Subzone Subject to CPI-W Increases
Lower Nooksack River			
Marietta property acquisition & demo New properties	\$ -	\$ 50,000	New owner interested in selling
Leases for agriculture	\$ 3,780.0	\$ -	River Rd and Emmerson Rd properties
Walton Property Management	\$ 16,800.0	\$ -	Revenues are from lease; 2021 expenses to deal with barn fire (demo, electric and well house)
Floodplain acquisition	\$ 847,866.0	\$ 1,059,832	Revenues from FbD grant; 2021 BA reduced by 200k for transfer to Jones Crk; 2022 is remaining grant task balance if not used for GG
Ferndale Levee Improvement Project (719008)	\$ 422,400.0	\$ 528,000	2021 BA from R&E CA; 2022 BA cover contract balance + amendment for 60% design; rev from FbD
Lynden Levee Improvement Project (in conjunction with USACE rehab project) (718005)	\$ 36,000.0	\$ 45,000	Chanel construction and USACE cost-share in 2021; planting and O&M plan in 2022
Abbott Levee Improvement (SWIF) (718010)	\$ 155,000.0	\$ 260,000	Assumes Roads pays 50%; design and construct bank repair in 2021; 2022 BA is for Phase 2 design; 2021 BA inc NHC CA
Cougar Creek Early Action Project Design (720010)	\$ 60,000.0	\$ 75,000	2021 rev is NOAA funding through TNC; complete design and permit in 2022 as early action project for FbD?
Other FbD Early Action Projects (TBD)	\$ 300,000.0	\$ 375,000	Balance of task budget in 2019-21 FbD grant; projects TBD
South Fork Fish Camp Project (72100x)			
Phase 1 design/construction	\$ 880,000.0	\$ 880,000	Pass-through FbD funding to Nooksack Tribe for integrated fish-flood project: Tribe to provide grant match (not included in WRIP)
Dahlberg Wetland Mitigation Site (719006)			
Wetland plan development		\$ 130,000	2021 costs for BLA to settle claim; 2022 BA for work to start on site plan development/monitoring
Jones Creek Deflection Berm (712004)			
Berm and bridge design	\$ 54,000.0	\$ 130,000	2021 BA inc CA for Swift appraisals; 2021 PO for PSE contract balance; Permitting assistance from Roads (30k/yr) design cost-shared 70/30 with Roads
Land/easement acquisition	\$ 50,000.0	\$ -	Derus and Swift properties plus two easements in 2021; revenues from FbD; 2022 revenues is from road for new ROW
Construction	\$ 124,000.0	\$ 155,000	Demo and cleanup of Derus- likely to slip to 2022 due to movers
High Creek Sediment Management			
Sediment trap maintenance (720005)	\$ -	\$ 45,000	Cleaning only one trap in 2021
Glacier-Gallup Creek Alluvial Fan Restoration (718007)			
Outreach	\$ 20,000.0	\$ 25,000	2021 YE exp is contract balance - 2021 PO
Preliminary design	\$ 200,000.0	\$ 250,000	interim repair alt analysis in 2021; 60% design in 2022
TOTAL	\$ 3,169,846.0	\$ 4,437,456	
NET IMPACT TO FUND BALANCE	\$ (1,267,610.0)		

Flood Control Zone District
2022 Natural Resources Budget
Work Plan and Supporting Documentation

Natural Resources (169119)	Proposed 2022 Budget		Assumptions/Notes	ASRs
	Revenues	Expenditures		
NATURAL RESOURCES ADMINISTRATION				
Staff		\$ 308,421	Includes salary for 2.5 FTEs and overtime.	
Office and operating		\$ 316,528		
TOTAL	\$ -	\$ 624,949		
NET IMPACT TO FUND BALANCE	\$ (624,949)			
NATURAL RESOURCES OPERATIONS				
Salmon Recovery				
Staff		\$ 136,352	1 FTE	
Restoration effectiveness monitoring, adaptive management, and stewardship		\$ 61,408	WCC crew restoration activities	
Maintaining existing restoration projects*		\$ 92,112	WCC crew contract for maintaining	
New restoration projects*		\$ 30,000	Contracted services for activities supporting planting, fencing, culvert replacement, etc.	
Marine Resources Committee				
Staff	\$ 102,000	\$ 107,225	0.95 FTE + \$1,100 for intern	
MRC restoration projects		\$ 4,000	MRC projects	
Water Quality/Pollution Identification & Correction				
Program Coordination		\$ 136,352	Program Coordinator (1 FTE)	
Water Quality Monitoring	\$ 6,000	\$ 267,597	Sampling personnel, lab contract, one	
Data Management	\$ 100,000	\$ 100,000	WCD Data Manager	
Technical Assistance	\$ 170,000	\$ 170,000	WCD Farm Planners	\$ 50,000
Community Outreach	\$ 220,723	\$ 269,723	Outreach staff, WCD staff, supplies	
Incentives	\$ 58,000	\$ 79,000	OSS and small farm cost share	
Compliance	\$ 87,416	\$ 87,416	PDS Staff	
Coordination and Planning				
Lake Whatcom Homeowner Incentive Program		\$ 61,525	Staff time only (0.5 FTE); contracted CosMos Project \$125 with funding (RD 40%, BB 10%, GF 30%)	
CosMos				
WSU Extension outreach services				
TOTAL	\$ 744,139	\$ 1,602,710		
NET IMPACT TO FUND BALANCE	\$ (858,571)			\$ -
TOTAL FOR COST CENTER	\$ 744,139	\$ 2,227,659		\$ 25,000
		\$ 1,483,520		
*Integrated Salmon Recovery/Flood Hazard Reduction capital and planning projects appear under Cost Center 169114 and 169104.				
Aquatic Invasive Species (169120)	Proposed 2022 Budget		Assumptions/Notes	ASRs
	Revenues	Expenditures		
AIS ADMINISTRATION				
Staff	\$ -	\$ -	Misc. Expenses	
Office and operating		\$ -		
TOTAL	\$ -	\$ -		
NET IMPACT TO FUND BALANCE	\$ -			
AIS OPERATIONS				
Coordination and Planning				
Interlocal Agreement (COB)	\$ -	\$ 154,944	Contribution to City for AIS Program; includes COB program cost increase	
Enforcement	\$ -		Interdepartmental Agreement with WCSO	\$ 28,000
AIS online education program website maintenance	\$ -	\$ 10,000	Contracted services for online	
TOTAL	\$ -	\$ 164,944		
NET IMPACT TO FUND BALANCE	\$ (164,944)			
TOTAL FOR COST CENTER	\$ -	\$ 164,944		
		\$ 164,944		

Flood Control Zone District
2022 Natural Resources Budget
Work Plan and Supporting Documentation

Water Planning (169121)	Proposed 2022 Budget		Assumptions/Notes
	Revenues	Expenditures	
WATER PLANNING ADMINISTRATION			
Staff	\$ 5,586	\$ 128,722	Watershed Planner + LIO Labor
Office and operating		\$ 550	
TOTAL	\$ 5,586	\$ 129,272	
NET IMPACT TO FUND BALANCE	\$ (123,686)		
WATER PLANNING OPERATIONS			
Coordination and Planning			
Drainage-Based Management	\$ 50,000	\$ 50,000	Drainage-Based Management
Watershed Planning Administrative Support		\$ 25,000	Watershed Planning Administrative Support
LENS Groundwater Model		\$ 100,000	Peer Review and Modification of Groundwater Model
LIO administration	\$ 119,414	\$ 119,642	Administration of LIO process
Stream Gauging		\$ 125,000	USGS Stream Monitoring/AESI GW Monitoring Contracts
Climate Action Planner			\$ -
Domestic Water Use Efficiency Program			\$ 40,000
Water Settlement Initiative			Collaborative Process to Resolve Water Issues
TOTAL	\$ 169,414	\$ 419,642	\$ 250,000
NET IMPACT TO FUND BALANCE	\$ (250,228)		
TOTAL FOR COST CENTER	\$ 175,000	\$ 548,914	
		\$ 373,914	
			TOTAL ASRs
			\$ 393,000
	\$ 2,941,517		
	\$ 919,139		
	\$ (2,022,378)		
		\$ 2,022,378	Total Expenditure
		\$ 2,415,378	Total with ASRs
		\$ (235,321)	8% lapse on expenses
		\$ 1,860,588	

**Lynden/Everson Subzone
2022 Budget
and Fund Balance Projections**

Fund balance as of December 31, 2020	\$177,705	(+)	(-)	Notes
2021 Estimated Revenues:				
Assessment		\$43,060		
Interest earnings/penalties		\$2,400		
2021 Estimated Expenditures:				
Levee vegetation maintenance			\$25,000	brushing, spraying and hydroseeding
Mole control/misc			\$2,500	ACOE deficiency
Alternative corrections crew labor			\$5,000	misc levee and mitigation
Address new ACOE deficiencies			\$5,000	Blankers levee & misc.
Lynden Levee Rehabilitation (USACE) and Channel Work			\$25,000	local contribution
Plant materials/maintenance supplies			\$2,500	for mitigation
Upper Hampton Backsloping			\$5,000	trucking and/or dozer time
Abbott Levee Bank Stabilization & Habitat Project			\$25,000	local contribution
Coordination, TA & Project Mgmt.			\$5,000	staff time
Total		\$45,460	\$100,000	
Projected December 2021 fund balance	\$123,165			
 2022 Revenues - Proposed Budget				
Assessment		\$43,060		
Interest earnings		\$2,400		
2022 Expenditures - Proposed Budget				
Levee vegetation maintenance			\$25,000	brushing, spraying and hydroseeding
Mole control/misc			\$2,500	ACOE deficiency
Alternative corrections crew labor			\$5,000	misc levee and mitigation maintenance
Address new ACOE deficiencies			\$5,000	new problems placeholder
ACOE Culvert Inspections			\$5,000	video/photos
Cost-share/repairs as needed			\$30,000	New damage
Coordination			\$5,000	staff time
Total		\$45,460	\$77,500	
Projected December 2022 fund balance	\$91,125			

**Sumas/Nooksack/Everson Subzone
2022 Budget
and Fund Balance Projections**

Fund balance as of December 31, 2020	\$1,474,948	(+)	(-)	Notes
2021 Estimated Revenues:				
Assessment		\$121,210		
Interest earnings		\$14,000		
2021 Estimated Expenditures:				
Levee vegetation maintenance				\$5,000 brushing and spraying
Mitigation monitoring and maintenance				\$1,000 supplies
Alternative corrections crew labor				\$2,500 misc maintenance
Transfer to Swift Creek project fund				\$45,000 150k Road fund, 105K FCZD fund also transferred for \$300k/yr
Coordination				\$1,500 staff costs
Pump station electric charges				\$2,000 PSE
Total		\$135,210	\$57,000	
Projected December 2021 fund balance	\$1,553,158			
2022 Revenues - Proposed Budget				
Assessment		\$121,210		
Interest earnings		\$14,000		
2022 Expenditures - Proposed Budget				
Levee vegetation maintenance				\$5,000 brushing, spraying and hydroseed
Pump station electric charges				\$2,000 PSE
Mitigation monitoring and maintenance				\$1,000 supplies
Alternative corrections crew labor				\$2,000 misc maintenance
Coordination, TA & Project Mgmt.				\$1,500 staff costs
Transfer to Swift Creek project fund				\$49,125 150k Road fund, 105K FCZD fund also transferred for \$300k/yr subject to CPI-Urban
Cost-share/repairs as needed (new damage)				\$150,000 30% of \$500,000 project
Total		\$135,210	\$210,625	
Projected December 2022 fund balance	\$1,477,743			

**Acme/Van Zandt Subzone
2022 Budget
and Fund Balance Projections**

Fund balance as of December 31, 2020	\$365,394	(+)	(-)	Notes
2021 Estimated Revenues:				
Assessment		\$23,225		
Interest earnings		\$2,000		
2021 Estimated Expenditures:				
Cost-share/repairs as needed			\$0	
M&O for Jones Creek stage/prec gage (9 month operation)			\$6,001	9 month operation with telemetry
Admin support for meetings/minutes			\$1,000	
Total		\$25,225	\$7,001	
Projected December 2021 fund balance	\$383,618			
 2022 Revenues - Proposed Budget				
Assessment		\$23,225		
Interest earnings		\$2,000		
2022 Expenditures - Proposed Budget				
Cost-share/repairs as needed			\$30,000	30% of 100k project
M&O for Jones Creek stage/prec gage (9 month operation)			\$6,181	9 month operation with telemetry
Admin support for meetings/minutes			\$1,500	
Total		\$25,225	\$37,681	
Projected December 2022 fund balance	\$371,162			

**Samish Watershed Subzone
2022 Proposed Budget
and Fund Balance Projections**

Fund balance as of December 31, 2020	\$137,453	(+)	(-)	Subtotal	Notes
2021 Estimated Revenues:				\$22,555	
Assessment		\$21,820			2X June actual
Interest earnings		\$735			2X June actual
2021 Estimated Expenditures:				\$15,453	
Natural resource staff salaries, wages, benefits			\$6,455		YTD x 2.25 to account for more hours in fall
Office & operating supplies			\$337		
Repair & maintain weir & channel - contract services			\$3,800		8 months of the 12 month LOA
Repairs & Maintenance - interfund			\$4,861		This is for M&O interfund and was assigned to "668- Other services in 2021 budget but changes were assigned to "705 -R&M" which is where this was budgeted in the draft 2021 budget
Permits			\$0		Permits current thru spring 2024
Total		\$22,555	\$15,453		
Projected Fund Balance December 31, 2021	\$144,555				
2022 Revenues - Proposed Budget				\$22,570	
Assessment		\$21,820			Assumes 2022 similar to 2021
Interest earnings		\$750			Assumes 2022 similar to 2021
2022 Expenditures - Proposed Budget				\$22,150	
Natural resource staff salaries, wages, benefits			\$6,750		
Office & operating supplies			\$1,250		Weir timber replacement, new neoprene baffles, etc.
Repair & maintain weir & channel - contract services			\$7,900		2021-2022 LOA amount plus 3.5% cost increase for 2022-2023 LOA + \$2000 for beaver trapping
Repairs & Maintenance - interfund			\$6,250		Assumes M&O rental rates don't inflate appreciably
Permits			\$0		Permits current thru spring 2024
Total		\$22,570	\$22,150		
Projected December 2022 fund balance	\$144,975				

**Birch Bay Subzone
2022 Budget**

	Administration/ Personnel	Program Development & Management	Capital Improvement Projects	Maintenance, Small Works, & Scoping	Water Quality Monitoring	Education & Outreach	Habitat Improvement	Total	2022 Break Out			
	2022	2022	2022	2022	2022	2022	2022	2022	Overhead/ Admin	M&O	Construction	
									A	O	C	
Revenue												
FEMA - Fed			(71,250)					(71,250)	-		(71,250)	
FEMA - State			(11,875)					(11,875)	-		(11,875)	
Assessment Penalties	(2,500)							(2,500)	(2,500)		-	
Interest	(23,000)							(23,000)	(23,000)		-	
Assessments	(780,000)							(780,000)	(780,000)		-	
Stormwater transfer in	(66,700)							(66,700)	(66,700)		-	
REET II transfer in								-	-		-	
Revenue Total	(872,200)		(83,125)					(955,325)	(872,200)		(83,125)	(955,325)
Expense												
Salaries & Wages	142,983							142,983				
Extra Help	29,000							29,000				
Overtime	2,000							2,000				
Benefits	110,078							110,078				
Total Salaries & Benefits	284,061		-					284,061	284,061		-	
Unrealized Gain (Loss)								-				
Office & Operating Supplies	1,000					6,000	15,000	22,000	7,000		15,000	
Office & Oper. Supplies-Interfund	200							200	200			
Printing						5,000		5,000		5,000		
Books/Publications/Subscrip.	200							200	200			
Tools & Equipment					100			100		100		
Software	1,500							1,500	1,500			
Other Services and Charges (Emergency)	50,000							50,000	50,000			
Contractual Services				5,000	12,500			17,500		17,500		
Professional Services	18,000	10,000	345,000	14,000		40,000		427,000		68,000	359,000	
Building Maintenance	1,332							1,332	1,332			
Other Services-Interfund			60,000	12,000				72,000	-		72,000	
Postage/Shipping/Freight	500					3,000		3,500		3,500		
Postage-Interfund	100							100		100		
Telephone	965							965	965			
Travel-Educ/Training	1,000							1,000	1,000			
Travel-Other	1,500							1,500	1,500			
Advertising						1,500		1,500		1,500		
Equipment Rental	200							200		200		
Space Rental		1,000				250		1,250	1,250			
Space Rental-Interfund	1,500							1,500	1,500			
Insurance Premium - Interfund	760							760	760			
Repairs & Maintenance				40,000				40,000		40,000		
Registration/Tuition	2,100							2,100	2,100			
Meeting Refreshments		300				200		500		500		
Administrative Cost Allocation	11,575							11,575	11,575			
Other Miscellaneous-Interfund				2,000				2,000			2,000	
Intergov. Professional Services						10,000		10,000		10,000		
Capital Outlays - Other Improvements			355,000					355,000			355,000	
Operating Transfer Out - Gen Fd	22,978							22,978	22,978			
Total Expenditures	399,471	11,300	760,000	73,000	12,600	65,950	15,000	1,337,321	387,921	146,400	803,000	1,337,321
Net Fund Impact:								381,996	(484,279)	146,400	719,875	381,996
Projected 2022 Starting Balance:								1,800,000				
Net 2022 Fund Impact:								(381,996)				
Lapse Add Back at 15%:								200,598				
Projected 2022 Ending Balance:								1,618,602				

Capital Improvement Projects

Object Code	Project/Program	2022	Notes
9259017002 Harborview Road/Birch Bay Drive Stormwater Improvements, Ph 2			
6630	PROFESSIONAL SERVICES		Design, archaeology, bid support
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS		Construction contract, ROW
6699	OTHER SERVICES INTERFUND	10,000	Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
9259020001 Semiahmoo Drive Stormwater Improvements			
6630	PROFESSIONAL SERVICES	105,000	Design, archaeology, bid support
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS	325,000	Construction contract, ROW
6699	OTHER SERVICES INTERFUND	10,000	Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
9259019002 Charel Terrace Bank Stabilization Study			
6630	PROFESSIONAL SERVICES	55,000	Herrera design contract. Received \$110k from FEMA, requires 12.5% match
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS	30,000	Construction contract, ROW
6699	OTHER SERVICES INTERFUND	10,000	Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
9259020002 Holeman Avenue Stormwater Improvements			
6630	PROFESSIONAL SERVICES	90,000	Design, archaeology, bid support
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS		Construction contract, ROW
6699	OTHER SERVICES INTERFUND		Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
9259021001 Normar Place Stormwater Improvements			
6630	PROFESSIONAL SERVICES	55,000	Design, archaeology, bid support
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS		Construction contract, ROW
6699	OTHER SERVICES INTERFUND	20,000	Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
9259019001 Lora Lane Drainage & Tide Gate Modifications			
6630	PROFESSIONAL SERVICES	40,000	Design, archaeology, bid support
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS		Construction contract, ROW
6699	OTHER SERVICES INTERFUND	10,000	Construction staking, as-built survey, permitting assistance, engineering oversight
7199	OTHER MISC INTERFUND		Permit expense
Total Expenditures		760,000	
Object Code Totals			
6630	PROFESSIONAL SERVICES	345,000	
6699	OTHER SERVICES INTERFUND	60,000	
7199	OTHER MISC INTERFUND	0	
7380	CAPITAL OUTLAYS - OTHER IMPROVEMENTS	355,000	
8351	TRANSFER OUT	0	
Total Expenditures		760,000	

Whatcom County Flood Control Zone District
Flood Capital Program
2022

Department	Fund	Database ID No.	Project Title	Year	Cost
Flood Capital Program					
Public Works	Flood Fund	07-002	Marietta Acquisition	2022	\$ 75,000
Public Works	Flood Fund	20-001	Marine Drive Levee 2020 Damage Repair	2022	\$ 335,000
Public Works	Flood Fund	16-007	Abbott Levee Protection and Improvement	2022	\$ 310,000
Public Works	Flood Fund	16-003	Lynden Levee Improvement	2022	\$ 55,000
Public Works	Flood Fund	07-105	Jones Creek Debris Flow Protection	2022	\$ 385,000
Public Works	Flood Fund	16-008	Cougar Creek Early Action Project	2022	\$ 95,000
Public Works	Flood Fund	20-002	Everson Overflow Pipeline Bank Stabilization	2022	\$ 180,000
Public Works	Flood Fund	20-003	Truck Road Flood Damage	2022	\$ 290,000
Public Works	Flood Fund	16-005	Bertrand Creek Levee Stabilization	2022	\$ 285,000
Public Works	Flood Fund	07-104	Ferndale Levee Improvement	2022	\$ 578,000
Public Works	Flood Fund	18-006	Glacier-Gallup Alluvial Fan Restoration	2022	\$ 325,000
Public Works	Flood Fund	20-004	Dahlberg Wetland Mitigation Site	2022	\$ 160,000
Public Works	Flood Fund	07-002	Floodplain Acquisition	2022	\$ 1,060,000
Total					\$ 4,133,000
Public Works	BBWARM	18-009	Semiahmoo Drive Drainage Improvements	2022	\$ 440,000
Public Works	BBWARM	20-011	Charel Terrace Stormwater Outfall Improvements	2022	\$ 95,000
Public Works	BBWARM	07-242	Holeman Avenue Stormwater Improvements PW-1	2022	\$ 90,000
Public Works	BBWARM	19-004	Normar Place Stormwater Improvements	2022	\$ 75,000
Public Works	BBWARM	18-008	Lora Lane Drainage & Tide Gate Modification	2021	\$ 80,000
Total					\$ 780,000



Whatcom County

COUNTY COURTHOUSE
311 Grand Avenue, Ste #105
Bellingham, WA 98225-4038
(360) 778-5010

Agenda Bill Master Report

File Number: AB2021-635

File ID:	AB2021-635	Version:	1	Status:	Agenda Ready
File Created:	10/27/2021	Entered by:	MCaldwel@co.whatcom.wa.us		
Department:	Finance Division	File Type:	Resolution (FCZDBS) Requiring a Public Hearing		
Assigned to:	Council			Final Action:	
Agenda Date:	11/09/2021			Enactment #:	

Primary Contact Email: mcaldwel@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution Authorizing the Levy of Taxes for the Whatcom County Flood Control Zone District for 2022

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

In accordance with RCW 86.15.160(3), requests the Board of Supervisors of the Whatcom County Flood Control Zone District to authorize the levy of taxes within the district for 2022.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:

Attachments: Proposed Resolution

PROPOSED BY: Executive
INTRODUCTION DATE: November 09, 2021

RESOLUTION NO. _____
RESOLUTION AUTHORIZING THE LEVY OF TAXES
FOR THE WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT FOR 2022

WHEREAS, RCW 86.15.160(3) authorizes the Board of Supervisors of the Whatcom County Flood Control Zone District (WCFCZD) to impose an ad valorem property tax levy of up to fifty cents per thousand dollars of assessed value upon real property within the district; and

WHEREAS, the Board of Supervisors of the WCFCZD has reviewed the proposed annual budget, including all sources of revenues and anticipated expenditures; and,

WHEREAS, the annual budget provides detailed listings of various revenues including property taxes; and,

WHEREAS, the WCFCZD Board of Supervisors has held a public hearing concerning the annual budget, the property tax rates, and revenues included therein.

NOW, THEREFORE, BE IT RESOLVED by the **WCFCZD Board of Supervisors** that amounts collected through the WCFCZD levy shall be limited to the amount of 2021 taxes, increased for the addition of new construction and improvements to property and any increase in the value of state assessed property. A property tax increase, in addition to the amount resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, is hereby authorized for the 2022 levy in the amount of \$0, which is a percentage increase of 0% from the previous year.

ADOPTED this ____ day of _____, 2021.

ATTEST:

WHATCOM COUNTY FLOOD CONTROL
ZONE DISTRICT BOARD OF SUPERVISORS
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Barry Buchanan, District Chair

APPROVED AS TO FORM:

Approved by email/C Quinn/M Caldwell
Civil Deputy Prosecutor