

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

JON HUTCHINGS
Director



NATURAL RESOURCES
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MEMORANDUM

TO: The Honorable Jack Louws, Whatcom County Executive, and
Honorable Members of the Whatcom County Council

THROUGH: Jon Hutchings, Director

FROM: Gary S. Stoyka, Natural Resources Program Manager

DATE: September 9, 2019

RE: September 17, 2019 Council Surface Water Work Session

Please refer to the proposed agenda below for the next Surface Water Work Session. Additional supporting documents may be distributed at or before the meeting.

AGENDA

Date:	Tuesday, September 17, 2019		
Time:	10:30 a.m. to 12:15 p.m.		
Place:	Civic Center Garden Level Conference Room		
Time	Topic	Council Action Requested	Background Information Attached
10:30 AM – 10:45 AM	Watershed Planning Update	Discussion	None
10:45 AM – 11:15 AM	2020-2025 Water Resources Improvement Plan	Discussion	2020-2025 WRIP
11:15 AM – 11:45 AM	Proposed 2020 Flood Control Zone District Budget	Discussion	Proposed Budget Summary
11:45 AM – 12:15 PM	Proposed BBWARM Code Updates	Discussion	Proposed Amendment of WCC 100.07

If you have questions, please feel free to call me at (360) 778-6218.

cc: Mike McFarlane	Joe Rutan	Paula Harris	John Wolpers	Mike Donahue
Beth Bushaw	Jeff Hegedus	John Thompson	Kraig Olason	Erika Douglas
Tyler Schroeder	Josh Fleischmann	Karen Frakes	Jennifer Schneider	Jill Nixon
Sue Blake	Roland Middleton	Dana Brown-Davis	Atina Casas	Cathy Craver
George Boggs	Ryan Ericson	Lonni Cummings	Kristi Felbinger	Mark Personius

Item No.	Project Description	Database ID No.	BES	Previous Expenditures			2020			2021			2022			2023			2024			2025			Total
				Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	
	LAKE WHATCOM STORMWATER																								
1	Northshore Drive, Edgewater Stormwater Improvements (LW CIP-18): System upgrades to improve water quality by installing water quality treatment facilities and installing-check dams to reduce ditch erosion	14-002	62.2	PE	\$ 160,000	REET	PE			PE			PE			PE			PE			PE			\$ 620,000
				PE			PE			PE			PE			PE			PE			PE			
				RW	\$ 10,000	REET	RW			RW			RW			RW			RW			RW			
				CN			CN	\$ 450,000	REET	CN			CN			CN			CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
2	Silver Beach Creek Phase 1 and 2 (LW CSP# CIP-04, CIP-06): Phase I Install WQ treatment system. Phase II, Main channel restoration below Hillsdale using natural vegetation	07-095	60.5	PE	\$ 10,000	REET	PE	\$ 110,000	REET	PE	\$ 30,000	REET	PE	\$ 120,000	REET	PE			PE			PE			\$ 1,160,000
				RW	\$ 10,000	REET	PE			PE			RW	\$ 20,000	REET	RW			RW			RW			
				CN			RW			CN	\$ 260,000	REET	CN			CN			CN	\$ 600,000	REET	CN			
				CN			CN			CN			CN			CN			CN			CN			
3	Sudden Valley (LW CSP# CIP-16, CIP-17): Drainage systems upgrades and outfall retrofits	13-004	46.3	PE	\$ 10,000	REET	PE	\$ 30,000	REET	PE	\$ 130,000	REET	PE			PE			PE			PE			\$ 780,000
				PE			PE			PE			PE			PE			PE			PE			
				RW			RW	\$ 10,000	REET	RW			RW			RW			RW			RW			
				CN			CN			CN			CN	\$ 600,000	REET	CN			CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
4	Lowell Drive and Cedarbrook Court (LW CIP-19): Construction 2022. End of pipe, media filtration, and natural drainage system improvements	14-003	62.2	PE			PE	\$ 10,000	REET	PE	\$ 115,000	REET	PE	\$ 75,000	REET	PE			PE			PE			\$ 790,000
				PE			PE			PE			PE			PE			PE			PE			
				RW			RW			RW	\$ 10,000	REET	RW			RW			RW			RW			
				CN			CN			CN			CN			CN	\$ 580,000	REET	CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
5	Glen Cove Lane and Lakeside Street (LW CIP-20): Construction 2023. System upgrade to improve water quality-bioinfiltration swales, filter vaults, media filter drains, and rain gardens	15-002	58.2	PE			PE			PE	\$ 10,000	REET	PE	\$ 115,000	REET	PE	\$ 75,000	REET	PE			PE			\$ 620,000
				PE			PE			PE			PE			PE			PE			PE			
				RW			RW			RW			RW	\$ 10,000	REET	RW			RW			RW			
				CN			CN			CN			CN			CN			CN	\$ 410,000	REET	CN			
				CN			CN			CN			CN			CN			CN			CN			
6	South Bay Drive: Constuction 2024. System upgrades to improve water quality -biofiltration swales, reduce ditch erosion	16-010	62.2	PE			PE			PE			PE	\$ 10,000	REET	PE	\$ 115,000	REET	PE	\$ 75,000	REET	PE			\$ 840,000
				PE			PE			PE			PE			PE			PE			PE			
				RW			RW			RW			RW			RW	\$ 20,000	REET	RW			RW			
				CN			CN			CN			CN			CN			CN			CN	\$ 620,000	REET	
				CN			CN			CN			CN			CN			CN			CN			
7	Strawberry Point/Lake Whatcom Blvd: Constuction 2025. System upgrades to improve water quality-vaults, biofiltration swales, channel restoration	17-001	62.2	PE			PE			PE			PE			PE	\$ 10,000	REET	PE	\$ 115,000	REET	PE	\$ 75,000	REET	\$ 220,000
				PE			PE			PE			PE			PE			PE			PE			
				RW			RW			RW			RW			RW			RW	\$ 20,000	REET	RW			
				CN			CN			CN			CN			CN			CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
	BIRCH BAY WATERSHED & AQUATIC RESOURCES MANAGEMENT																						BBWARM		
8	Harborview Road Drainage Improvements (CR-1): Install new low-level system along Birch Bay Drive (CR-2, HL-1). Upsize culverts and install new high level system along Harborview Road to carry upland water directly to Birch Bay	07-217	52.0	PE	\$ 360,000	BBWARM	PE	\$ 200,000	BBWARM	PE			PE			PE			PE			PE			\$ 1,610,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN	\$ 200,000	REET				CN			CN			CN			CN			
				CN			CN	\$ 850,000	BBWARM	CN			CN			CN			CN			CN			
9	Semiahmoo Drive Drainage Improvements - North (BP-2) and South (BP-5): Upsize culverts and re-establish roadside ditch on east side of Semiahmoo Drive	18-009 18-010	50.3	PE	\$ 10,000	BBWARM	PE	\$ 160,000	BBWARM	PE	\$ 40,000	BBWARM	PE			PE			PE			PE			\$ 385,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN	\$ 175,000	REET	CN			CN			CN			CN			
10	Lora Lane Drainage & Tide Gate Modifications (TC1-2): Replace existing tide gate structure and repair embankment, install Type 2 CB and culvert under Birch Bay Drive	18-008	42.5	PE	\$ 10,000	BBWARM	PE			PE	\$ 130,000	BBWARM	PE	\$ 55,000	BBWARM	PE			PE			PE			\$ 440,000
				RW			RW			RW			RW			RW			RW			RW			
													CN	\$ 200,000	REET										
				CN			CN			CN			CN	\$ 45,000	BBWARM	CN			CN			CN			
11	Holeman Avenue Storm Drain Improvements (PW-1): Replace CBs, upsize culverts, re-establish ditch on Holeman Ave near Birch Bay Drive	07-242	37.8	PE			Mor			PE	\$ 75,000	BBWARM	PE	\$ 60,000	BBWARM	PE			PE			PE			\$ 255,000
				RW			RW			RW			RW	\$ 10,000	BBWARM	RW			RW			RW			
				CN			CN			CN			CN			CN	\$ 110,000	BBWARM	CN			CN			
12	Wooldridge Ave & Sunset Drive Drainage Improvements (TC-2): Improve drainage system to reduce local flooding and incorporate water quality treatment	13-007	52.2	PE			PE			PE			PE	\$ 100,000	BBWARM	PE	\$ 50,000	REET	PE	\$ 50,000	BBWARM	PE			\$ 1,220,000
				RW			RW			RW			RW			RW	\$ 20,000	BBWARM	RW			CN	\$ 1,000,000	DOE Grant	
				CN			CN			CN			CN			CN			CN			CN			
13	Hillsdale Drainage Improvements, Phase 1 (HL-C-1): Upsize pipes, replace CBs, install new drain line, replace blind tee connections on Morgan, Cottonwood and Birch Bay Drives	19-002	48.6	PE			PE			PE			PE			PE	\$ 150,000	REET	PE	\$ 50,000	REET	PE	\$ 50,000	BBWARM	\$ 750,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN			CN			CN			CN			CN	\$ 500,000	BBWARM	
14	Morrison Ave & Terrill Drive Drainage Improvements (TC2-1): Install new storm drain line on Morrison Ave and Willow Drive, replace and re-grade storm drain system at Terrill Drive	19-003	46.9	PE			PE			PE			PE			PE			PE	\$ 150,000	REET	PE	\$ 50,000	BBWARM	\$ 200,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN			CN			CN			CN			CN			
15	Normar Place Drainage Improvements (BP-1): Upsize pipes, replace CBs and install energy dissipater at pipe outfall on Normar Place.	19-004	52.0	PE			PE			PE			PE			PE			PE			PE	\$ 80,000	BBWARM	\$ 80,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN			CN			CN			CN			CN			
16	Birch Bay Drive & Pedestrian Facility Project: BBWARM contribution toward stormwater improvements as part of larger road fund project in Birch Bay	07-030	72.1	PE			PE			PE			PE			PE			PE			PE			\$ 250,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN	\$ 250,000	BBWARM	CN			CN			CN			CN			

Item No.	Project Description	Database ID No.	BES	Previous Expenditures			2020			2021			2022			2023			2024			2025			Total
				Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	Phase	Amount	Source	
LAKE SAMISH STORMWATER																									
17	Shallow Shore Drive Drainage Improvements	18-007	44.4	PE			PE	\$ 50,000	REET	PE			PE			PE			PE			PE			\$230,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN			CN			CN	\$ 180,000		CN			CN			CN			
RIVER & FLOOD																									
18	Marietta Acquisition -- Acquire properties in repetitive flood loss area	07-002	79.6	RW	\$ 494,000	FCZD	RW	\$ 64,000	FCZD	RW			RW			RW			RW			RW			Total through 2020: \$2,180,000 FCZD Total: \$744,000
				RW	\$ 802,000	FEMA Fed/State grant	RW	\$ 96,000	FEMA Fed/State grant	RW	\$100,000		RW	\$100,000		RW	\$100,000		RW	\$100,000		RW	\$100,000		
				RW	\$ 117,000	ESRP grant	RW			RW			RW			RW			RW			RW			
				CN	\$ 166,000	FCZD	CN	\$ 20,000	FCZD	CN	\$25,000		CN	\$25,000		CN	\$25,000		CN	\$25,000		CN	\$25,000		
				CN	\$ 258,000	FEMA Fed/State grant	CN	\$ 135,000	FEMA Fed/State grant	CN			CN			CN			CN			CN			
19	Truck Road Emergency Erosion Protection -- Install passive riprap to protect road; mitigation needed in 2020	18-002	59.4	PE	\$ 16,000	FCZD/Roads (50/50)	PE	\$ 50,000	FCZD/Roads (50/50)	PE			PE			PE			PE			PE			Project Total: \$521,000
				CN	\$ 455,000	FCZD/Roads (50/50)	CN			CN			CN			CN			CN			CN			
20	Abbott Levee Erosion Protection -- Construct interim measures for erosion protection for levee and adjacent road	18-005	66.5	PE	\$ 75,000	FCZD/Roads (50/50)	PE			PE			PE			PE			PE			PE			Project Total: \$535,000
				CN			CN	\$ 460,000	FCZD/Roads (50/50)	CN			CN			CN			CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
21	Red River Levee Stabilization -- Restore levee prism and bank protection (SWIF project)	16-004	52.9	PE	\$ 28,000	FCZD	PE			PE			PE			PE			PE			PE			Project Total: \$258,000
				CN	\$ 200,000	FCZD/Lummi**	CN	\$ 30,000	FCZD	CN			CN			CN			CN			CN			
22	Twin View Levee Improvements -- Widen levee crest and flatten backslope at two sites (SWIF project)	16-002	50.3	PE			PE	\$ 15,000		PE	\$ 15,000		PE			PE			PE			PE			Project Total: \$280,000
				CN			CN			CN	\$ 250,000		CN			CN			CN			CN			
23	Lynden Levee Improvement -- Combine drainages and replace two culverts through levee with one larger culvert (SWIF project) and repair 2 damaged levee sites (USACE)	16-003	64.5	PE	\$ 50,000	FCZD	PE	\$ 75,000	FCZD	PE			PE			PE			PE			PE			Project Total: \$2,000,000 (See Note 1)
				RW			CN			CN	\$ 1,000,000		CN			CN			CN			CN			
				CN			CN			CN			CN			CN			CN			CN			
24	Bertrand Creek Levee Stabilization -- Restore right and left levee prisms and install bank protection (SWIF project)	16-005	54.4	PE			PE			PE	\$ 20,000		PE	\$ 20,000		PE			PE			PE			Project Total: \$190,000
				CN			CN			CN			CN	\$ 150,000		CN			CN			CN			
25	Jones Creek Debris Flow Protection --Construct deflection berm and address local access	07-105	70.6	PE	\$ 600,000	FCZD	PE	\$ 77,000	FCZD	PE	\$ 35,000	FCZD	PE	\$ 125,000	FCZD	PE			PE			PE			Project Total: \$6,636,000
				RW	\$ 122,000	FCZD	PE	\$ 33,000	Roads	PE	\$ 15,000	Roads	PE	\$ 50,000	Roads	RW			RW			RW			
				RW	\$ 390,000	FEMA/State grant	RW	\$ 225,000	FCZD	RW	\$ 300,000	FCZD	RW	\$ 20,000	FCZD	RW			RW			RW			
				CN	\$ 26,000	FCZD	RW	\$ 800,000	DOE grant	RW	\$ 30,000	Roads	CN	\$ 3,000,000	FCZD	CN			CN			CN			
				CN	\$ 13,000	FEMA/State grant	CN			CN			CN	\$ 775,000	Roads	CN			CN			CN			
26	Abbott Levee Upstream Tie-In -- Extend and realign upstream end of levee (SWIF project)	16-007	70.4	PE	\$ 140,000	FCZD/Roads (50/50)	PE	\$ 200,000	FCZD/Roads (50/50)	PE	\$ 75,000	FCZD/Roads	PE	\$ 75,000	FCZD/Roads	PE	\$ 150,000	FCZD	PE			PE			Project Total: \$2,830,000
				RW			RW			RW			RW	\$ 150,000	FCZD/Roads	CN	\$ 870,000	FCZD	RW			RW			
				CN			CN			CN			CN			CN	\$ 1,170,000	Roads	CN			CN			
27	Neevel Levee Bank Stabilization -- Stabilize oversteepened section of levee (SWIF project)	16-008	49.3	PE			PE			PE			PE	\$ 20,000		PE	\$ 20,000		PE			PE			Project Total: \$190,000
				CN			CN			CN			CN			CN	\$ 150,000		CN			CN			
28	Devries Levee Improvements -- Widen and establish full crest width and backslope levee (SWIF project)	19-001	49.3	PE			PE			PE			PE	\$ 25,000		PE	\$ 25,000		PE			PE			Project Total: \$250,000
				CN			CN			CN			CN			CN	\$ 200,000		CN			CN			
29	Upper Hampton Levee Improvements -- Widen levee crest and flatten backslope at two sites and address seepage at a third site (SWIF project)	16-006	70.4	PE			PE			PE			PE			PE	\$ 25,000		PE	\$ 100,000		PE			Project Total: \$700,000
				RW			RW			RW			RW			RW	\$ 75,000		RW			RW			
				CN			CN			CN			CN			CN			CN			CN	\$ 500,000		
30	Ferndale Levee Improvement -- Reconstruct and realign Ferndale and Treatment Plant Levees to improve level of protection and address deficiencies	07-104	68.9	PE			PE	\$ 60,000	FCZD	PE	\$ 250,000		PE	\$ 250,000		PE	\$ 100,000		PE	\$ 50,000		PE			Construction Expected in 2024-2026
				RW			PE	\$ 240,000	DOE grant	RW			RW			RW	\$ 100,000		RW			RW			
				CN			RW			CN			CN			CN			CN	\$ 2,000,000		CN	\$ 5,000,000		
				CN			CN			CN			CN			CN			CN			CN			
31	Glacier-Gallup Alluvial Fan Restoration - Remove all or part of Glacier Creek levee and construct setback levee along Gallup Creek	18-006	88.9	PE	\$ 310,000	FCZD	PE	\$ 50,000	FCZD	PE	\$ 200,000		PE	\$ 200,000		PE	\$ 100,000		PE	\$ 100,000		PE	\$ 100,000		Construction Expected in 2026
				PE			PE	\$ 200,000	DOE grant	PE			PE			PE			PE			PE			
				RW			RW			RW			RW			RW	\$ 500,000		RW	\$ 100,000		RW	\$ 100,000		
32	Floodplain Acquisition -- Acquire key properties for future levee reconfiguration to reduce risk and improve habitat	07-002	79.6	RW	\$ 100,000	FCZD	RW	\$ 200,000	FCZD	RW	\$ 1,000,000		RW			RW			RW			RW			
				RW			RW	\$ 800,000	DOE grant	RW			RW			RW			RW			RW			
33	Emergency/New Projects -- Typically repair projects that result from new damage, as needed	08-003	Varies	PE			PE	\$ 25,000		PE	\$ 25,000		PE	\$ 25,000		PE	\$ 25,000		PE	\$ 25,000		PE	\$ 25,000		Total/year: \$425,000
				RW			RW			RW			RW			RW			RW			RW			
				CN			CN	\$ 350,000		CN	\$ 350,000		CN	\$ 350,000		CN	\$ 350,000		CN	\$ 350,000		CN	\$ 350,000		
				CN			CN	\$ 50,000		CN	\$ 50,000		CN	\$ 50,000		CN	\$ 50,000		CN	\$ 50,000		CN	\$ 50,000		
NOTE: Numbers in <i>italics</i> are placeholders for projects still being conceived.																									
*Previous expenditures includes work contracted in 2019 that will continually appropriate into 2020.																									
**Construction in 2020 under 2019 continuing appropriation																									
Note 1: Estimated total project cost includes work done by USACE - funded directly by USACE																									

Flood Control Zone District 2020 Budget

OVERALL BUDGET SUMMARY

Budget Program Code	Approved 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget with ASR's	
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures
169100 Administration	\$ 4,980,712	\$ 751,841	\$ 3,646,272	\$ 819,131	\$ 5,075,000	\$ 771,809	\$ 5,005,692	\$ 820,960
169100 Transfers - To Stormwater		\$ 1,258,997		\$ 1,293,997		\$ 950,000		\$ 1,243,843
169102 Flood Response	\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 110,000
169104 Flood Planning	\$ 350,000	\$ 820,000	\$ 457,373	\$ 1,238,347	\$ 284,530	\$ 565,582	\$ 380,000	\$ 925,000
169106 Technical Assistance	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 76,000
169108 NFIP and CRS	\$ 16,000	\$ 175,000	\$ 16,000	\$ 175,000	\$ 16,000	\$ 162,000	\$ 16,000	\$ 177,000
169110 Early Warning	\$ 4,225	\$ 131,000	\$ 4,225	\$ 131,000	\$ 4,225	\$ 104,985	\$ 4,400	\$ 135,000
169112 Repair and Maintenance	\$ 730,600	\$ 2,184,439	\$ 730,600	\$ 2,257,813	\$ 103,886	\$ 1,070,650	\$ 292,000	\$ 1,120,439
169114 Flood Hazard Reduction	\$ 633,830	\$ 1,672,200	\$ 1,833,830	\$ 3,359,491	\$ 1,357,095	\$ 2,726,121	\$ 2,508,340	\$ 3,904,640
169119 Natural Resources	\$ 582,401	\$ 1,942,654	\$ 758,300	\$ 2,145,360	\$ 582,500	\$ 1,952,875	\$ 591,500	\$ 2,101,145
169120 Aquatic Invasive Species	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 141,590
169121 Water Planning	\$ 131,265	\$ 381,029	\$ 131,265	\$ 567,722	\$ 131,265	\$ 567,722	\$ 67,950	\$ 486,983
169700 NPDES	\$ -	\$ 187,580	\$ -	\$ 187,580	\$ -	\$ 80,000	\$ -	\$ 187,480
TOTAL	\$ 7,429,033	\$ 9,821,490	\$ 7,577,865	\$ 12,492,190	\$ 7,554,501	\$ 9,268,494	\$ 8,865,882	\$ 11,430,080
(DECREASE)/INCREASE IN FUND BALANCE	\$ (2,392,457)		\$ (4,914,325)		\$ (1,713,993)		\$ (2,564,198)	

Notes:

Assumes fall flood in 2018; 2019 budget includes funding for flood response and new repair

Starting Balance	8,686,689	BOY 2019
Projected Net Annual Activity	-1,713,993	
Projected Balance	6,972,696	BOY 2020
Budgeted Net Annual Activity (with ASR)	-2,564,198	
Add back expense lapse of 20% (with related grant income reduction)	1,784,348	
Projected Balance	6,192,846	BOY 2021

Flood Control Zone District
2020 Budget
Work Plan and Supporting Documentation

DETAIL FOR FCZD PROGRAM AREAS

FLOOD MAINTENANCE AND OPERATIONS										
Flood Response (169102)		Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
		Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits			\$ 10,000		\$ 10,000		\$ 10,000		\$ 10,000	
Sand and sandbags			\$ 35,000		\$ 35,000		\$ 35,000		\$ 35,000	Includes pre-deployed and sand bags for training
Preparedness training			\$ 5,000		\$ 5,000		\$ 5,000		\$ 5,000	Road and M&O employees and equipment
Sector observers during response			\$ 40,000		\$ 40,000		\$ 40,000		\$ 40,000	Road employees wages and benefits for 1 significant flood event
Construction contracts			\$ 20,000		\$ 20,000		\$ 20,000		\$ 20,000	During and immediately following response
TOTAL		\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 110,000	Budget based on 2009 flood with cost & wage increases
NET IMPACT TO FUND BALANCE		\$ (110,000)		\$ (110,000)		\$ (110,000)		\$ (110,000)		2019 YE projection assumes fall flood
Flood Planning (169104)		Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
		Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Lower Nooksack										
Wage and Benefits			\$ 150,000		\$ 150,000		\$ 150,000		\$ 150,000	
CFHMP refinement/update										
Facilitation			\$ 15,000		\$ 54,184		\$ 20,000		\$ 50,000	6630 New budget authority in 2020 for unspent balance and amendment
Hydraulic modeling/alternatives analyses			\$ 150,000		\$ 150,000		\$ 50,000		\$ 100,000	6630 2019 PO's \$60k WSE; 44k LandC
FLIP process support/Engineering design/Plan		\$ 200,000	\$ 200,000	\$ 307,373	\$ 307,373	\$ 150,000	\$ 150,000	\$ 155,000	\$ 175,000	6630 CA into 2019 of 107k; Revenues are NEP funding
Structure surveys in overflow corridors		\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000			\$ 75,000	\$ 75,000	6630 2019 til effort defined; Revenues are NEP funding
Geomorphic reach analyses			\$ 50,000		\$ 50,000		\$ 15,612		\$ -	2019 PO to finish contract
Sediment management			\$ -		\$ -		\$ -		\$ 200,000	IG 2020 contract for USGS ongoing investigation
Habitat assessment			\$ 60,000		\$ 81,790	\$ 34,530	\$ 54,970		\$ -	2019 PO + 22k CA to spend contract balance; revenues are SRFB
Flood event mapping			\$ 20,000		\$ 20,000		\$ -		\$ -	
Reach 1 Sediment					\$ 250,000	\$ 100,000	\$ 100,000	\$ 150,000	\$ 150,000	IG NEP-funded USGS Study; CA'd into 2019, 2020 BA for balance
High water mark survey			\$ 25,000		\$ 25,000		\$ 25,000		\$ 25,000	6630 Assumes flood each year
TOTAL		\$ 350,000	\$ 820,000	\$ 457,373	\$ 1,238,347	\$ 284,530	\$ 565,582	\$ 380,000	\$ 925,000	
NET IMPACT TO FUND BALANCE		\$ (470,000)		\$ (780,974)		\$ (281,052)		\$ (545,000)		
Technical Assistance (169106)		Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
		Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits			\$ 75,000		\$ 75,000		\$ 75,000		\$ 75,000	
Postage for Special District reassessments			\$ -						\$ 1,000	CDID#5 to be updated in 2020 with improved parcel coverage
TOTAL		\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 76,000	
NET IMPACT TO FUND BALANCE		\$ (75,000)		\$ (75,000)		\$ (75,000)		\$ (76,000)		
National Flood Insurance Prgm (169108)		Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
		Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits			\$ 150,000		\$ 150,000		\$ 150,000		\$ 150,000	
FEMA Floodplain mapping			\$ 10,000		\$ 10,000		\$ -		\$ 12,000	Assumes LNR mapping in 2020 - expenditures for public meeting notice
Permit reviews		\$ 16,000		\$ 16,000		\$ 16,000		\$ 16,000		Flood permit fees
Public education/CRS activities			\$ 15,000		\$ 15,000		\$ 12,000		\$ 15,000	CRS mailings
TOTAL		\$ 16,000	\$ 175,000	\$ 16,000	\$ 175,000	\$ 16,000	\$ 162,000	\$ 16,000	\$ 177,000	
NET IMPACT TO FUND BALANCE		\$ (159,000)		\$ (159,000)		\$ (146,000)		\$ (161,000)		

Flood Control Zone District
2020 Budget
Work Plan and Supporting Documentation

Early Warning System (169110)

	Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits		\$ 5,000		\$ 5,000		\$ 5,000		\$ 5,000	
Nooksack River gages - USGS		\$ 96,500		\$ 96,500		\$ 99,985		\$ 103,000	No PO for 18/19 contract written in 2018 so use 2019 BA for it Canadians reimburse cost to maintain gage; AVZ pays for Jones gage directly Discontinued
Everson MainSt stage gage _ USGS	\$ 4,225	\$ -	\$ 4,225	\$ -	\$ 4,225		\$ 4,400		
WWU camera on Swift Creek slide		\$ 2,500		\$ 2,500					
Emergency access to SNOTEL		\$ 5,000		\$ 5,000				\$ 5,000	Equip at NF gage may need replacing
Equipment for gage upgrades/repairs		\$ 12,000		\$ 12,000				\$ 12,000	
Repairs and maintenance		\$ 10,000		\$ 10,000				\$ 10,000	
TOTAL	\$ 4,225	\$ 131,000	\$ 4,225	\$ 131,000	\$ 4,225	\$ 104,985	\$ 4,400	\$ 135,000	
NET IMPACT TO FUND BALANCE	\$ (126,775)		\$ (126,775)		\$ (100,760)		\$ (130,600)		

FLOOD CONSTRUCTION AND IMPROVEMENTS

Repair and Maintenance (169112)

	Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits		\$ 110,000		\$ 110,000		\$ 110,000		\$ 90,000	
Misc				\$ 4,127		\$ -			

Construction Projects

Emergency/new projects as needed	\$ 50,000	\$ 350,000	\$ 50,000	\$ 350,000	\$ 50,000	\$ 350,000	\$ 50,000	\$ 350,000	Assumed costs for responding to flood/new repairs (fall 2019 flood assumed); increased due to cost of recent emergencies Placeholder for small projects; fall 2019 flood assumed Final payment and retainage; as-built, jail crew
Miscellaneous repair projects		\$ 50,000		\$ 50,000		\$ 50,000		\$ 50,000	
Marine Drive Levee Repair	\$ -	\$ 5,000	\$ -	\$ 46,113		\$ 18,591		\$ -	
Truck Road Emergency Bank Protection		\$ 25,000		\$ 25,000			\$ 25,000	\$ 50,000	50/50 cost-share with Roads; \$50,000 for 2019 mitigation payment to habitat project
Red River Levee Stabilization (SWIF)	\$ 63,000	\$ 200,000	\$ 63,000	\$ 200,000		\$ 170,000		\$ 30,000	ILA w/ Lummi signed in 2019 - PO for 170k will CA; 2020 BA for misc costs outside of ILA
Hannegan Levee Rehabilitation (USACE)	\$ 27,600	\$ 92,000	\$ 27,600	\$ 92,000	\$ 27,186	\$ 90,620		\$ -	20% cost-share to USACE; revenues from LE Subzone (30% of FCZD cost-share); title reports done in 2018
Abbott Levee Erosion Protection	\$ 570,000	\$ 1,100,000	\$ 570,000	\$ 1,100,000			\$ 200,000	\$ 400,000	Assumes Roads pays 50%; plan and implement interim flood response measures; improvement project budgeted under 114
Sande-Williams Levee Rehabilitation (USACE/DD2)	\$ 20,000	\$ 100,000	\$ 20,000	\$ 100,000	\$ 6,000	\$ 85,000	\$ 17,000	\$ -	USACE cost-share split 80/20 between FCZD and DD#2
Twin View Levee Rehabilitation (USACE)					\$ 20,700	\$ 69,000		\$ -	20% cost-share to USACE (67k); revenues from SNE Subzone (30% of FCZD cost-share); title reports (2k) done in 2019

Mitigation Planning/Implementation

Jail crew		\$ 117,439		\$ 117,439		\$ 117,439		\$ 117,439	Jail crew labor for FCZD and SWIF projects; available to diking or subzones 2017 contract with CD, CA into 2018; new contract in 2019 Increased to cover plant replacement costs for Deming and other past projects as needed
Reveg planning/coordination		\$ 25,000		\$ 53,134		\$ 5,000		\$ 23,000	
Reveg/misc supplies		\$ 10,000		\$ 10,000		\$ 5,000		\$ 10,000	
TOTAL	\$ 730,600	\$ 2,184,439	\$ 730,600	\$ 2,257,813	\$ 103,886	\$ 1,070,650	\$ 292,000	\$ 1,120,439	
NET IMPACT TO FUND BALANCE	\$ (1,453,839)		\$ (1,527,213)		\$ (966,764)		\$ (828,439)		

Flood Control Zone District
2020 Budget
Work Plan and Supporting Documentation

Flood Hazard Reduction (169114)	Original 2019 Budget		Supplemented 2019 Budget		2019 Year End Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
Wage and Benefits		\$ 190,000		\$ 190,000		\$ 190,000		\$ 305,000	
Misc				\$ 4,127		\$ -			CA'd twice to 169114 and 716002
Swift Creek									
Bank stabilization/channel excavation	\$ -	\$ 105,000	\$ -	\$ 105,000		\$ 105,000		\$ 105,000	6670 300k commitment per year; 150k Roads; remainder cost-shared 70/30 b/w FCZD and SNE Subzone
Lower Nooksack River									
Marietta property acquisition & demo (FEMA FMAG-716002)	\$ 330,050	\$ 377,200	\$ 330,050	\$ 377,200	\$ 93,315	\$ 106,646	\$ 231,560	\$ 264,640	6670/732 Acquisition of 3 Turk parcels in 2019; assumes demo and 4th property acquisition/demo in 2020
Marietta property acquisition & demo New properties		\$ 50,000		\$ 54,127		\$ 41,531		\$ 50,000	7320 Teeters cultural, asbestos, demo; Phase 2 ESA for Turk properties
Leases for agriculture	\$ 3,780		\$ 3,780		\$ 3,780		\$ 3,780	\$ -	River Rd and Emmerson Rd properties
Floodplain acquisition	\$ 300,000	\$ 300,000	\$ 1,500,000	\$ 1,800,000	\$ 1,260,000	\$ 1,500,000	\$ 800,000	\$ 1,000,000	2019 is for Reach 1 property with USFS funding thru WDFW and initial property(ies) under FbD grant, with remainder in 2020
Ferndale Levee Improvement Project Phase 1		\$ 200,000		\$ 200,000			\$ 240,000	\$ 300,000	6630 Survey, hydraulic analysis, alternatives analysis, conceptual design in 2018/19; supplement if FbD grant awarded in 2019
Lynden Levee Improvement Project (in conjunction with USACE rehab project)		\$ 40,000		\$ 40,000		\$ 35,000		\$ 75,000	6630 USACE rehab in 2021 to include culvert replacement; survey, hydraulics, wetland/permitting for channel relocation by FCZD
Rayhorst Levee Improvements		\$ 60,000		\$ 60,000		\$ 75,000		\$ -	6670 Design, permit and construct project to widen and backslope levee
Abbott Levee Improvement (SWIF)							\$ 200,000	\$ 400,000	Assumes Roads pays 50%; design and RW
Jones Creek Deflection Berm (712004)									
Berm and bridge design		\$ 75,000		\$ 75,000		\$ 215,053	\$ 33,000	\$ 110,000	6630 2019 contract will CA into 2020; design cost-shared 70/30 with Roads
Land/easement acquisition		\$ 125,000		\$ 125,000		\$ 25,706	\$ 800,000	\$ 1,025,000	7320, 6630 Purchase of parcels/easements for berm/road construction; 2019 Kosmic 1st payment of 3; 2020 exp for appraisals/relocation asst; revenues from FbD
Construction		\$ -		\$ -		\$ -		\$ -	Construction likely in 2022
High Creek Sediment Management									
Sediment trap/channel improvement design		\$ -		\$ 21,996		\$ 21,996		\$ -	WSE post-project monitoring report
Sediment trap/channel imp. construction		\$ -		\$ 27,673		\$ 31,673		\$ -	6670 JIJ contract CA into 2019- includes 2019 trap maint; 4k planting
Sediment trap maintenance		\$ 50,000		\$ 50,000		\$ 16,000		\$ 20,000	2019 Plants (16k) maintenance, 2020 trap maint
Glacier-Gallup Creek Alluvial Fan Restoration									
Feasibility study/concept design				\$ 39,525		\$ 202,825		\$ -	Risk assessment and alternatives anlaysis by BGC; 39k was CA
Outreach						\$ 69,848		\$ -	NHC contracted in 2019
Preliminary design		\$ 100,000		\$ 100,000		\$ -	\$ 200,000	\$ 250,000	Revenues from FbD grant
City of Lynden - Pepin Creek									
Funding for downstream analysis		\$ -		\$ 89,843		\$ 89,843		\$ -	6630 ILA executed in 2016 and CA'd into 2017 for reimbursement of City's expenses; new 2018 budget for balance, may CA into 2019
TOTAL	\$ 633,830	\$ 1,672,200	\$ 1,833,830	\$ 3,359,491	\$ 1,357,095	\$ 2,726,121	\$ 2,508,340	\$ 3,904,640	
NET IMPACT TO FUND BALANCE	\$ (1,038,370)		\$ (1,525,661)		\$ (1,369,026)		\$ (1,396,300)		

Flood Control Zone District
2020 Natural Resources Budget
Work Plan and Supporting Documentation

Natural Resources (169119)	Original 2019 Budget		Supplemented 2019 Budget		Year End 2019 Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
NATURAL RESOURCES ADMINISTRATION									
Staff		\$ 306,306		\$ 306,306		\$ 306,306		\$ 322,841	Includes salary for 2.5 FTEs and overtime.
Office and operating		\$ 279,627		\$ 279,627		\$ 279,627		\$ 290,639	
TOTAL	\$ -	\$ 585,933	\$ -	\$ 585,933	\$ -	\$ 585,933	\$ -	\$ 613,480	
NET IMPACT TO FUND BALANCE	\$ (585,933)		\$ (585,933)		\$ (585,933)		\$ (613,480)		
NATURAL RESOURCES OPERATIONS									
Salmon Recovery									
Staff		\$ 127,035		\$ 127,035		\$ 127,035		\$ 134,192	1 FTE
Restoration effectiveness monitoring, adaptive management, and stewardship		\$ 51,000		\$ 51,000		\$ 51,000		\$ 59,440	WCC crew restoration activities
Maintaining existing restoration projects*		\$ 32,250		\$ 32,250		\$ 32,250		\$ 89,160	WCC crew contract for maintaining previously planted projects
New restoration projects*		\$ 30,000		\$ 30,000		\$ 30,000		\$ 30,000	Contracted services for activities supporting planting, fencing, culvert replacement, etc.
Marine Resources Committee									
Staff	\$ 66,294	\$ 66,393	\$ 66,294	\$ 66,393	\$ 66,294	\$ 66,393	\$ 91,500	\$ 97,159	0.95 FTE
MRC restoration projects	\$ 8,607	\$ 8,607	\$ 8,607	\$ 8,607	\$ 8,706	\$ 8,706		\$ 8,706	MRC grant funding minus labor
Water Quality/Pollution Identification & Correction									
Program Coordination		\$ 127,035		\$ 127,035		\$ 127,035		\$ 134,192	Program Coordinator (1 FTE)
Water Quality Monitoring		\$ 263,229		\$ 263,229		\$ 263,229		\$ 241,269	Sampling personnel, lab contract, one vehicle, equipment (1 FTE + extra help)
Data Management	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 88,676	\$ 88,676	WCD Data Manager
Technical Assistance	\$ 206,400	\$ 206,400	\$ 382,299	\$ 388,507	\$ 206,400	\$ 206,400	\$ 96,066	\$ 96,066	WCD Farm Planners
Community Outreach	\$ 94,497	\$ 135,439	\$ 94,497	\$ 135,439	\$ 94,497	\$ 135,439	\$ 104,082	\$ 167,385	Outreach staff, WCD staff, supplies
Incentives	\$ 22,000	\$ 43,000	\$ 22,000	\$ 63,599	\$ 22,000	\$ 43,000	\$ 22,500	\$ 42,500	OSS and small farm cost share
Compliance	\$ 83,803	\$ 83,803	\$ 83,803	\$ 83,803	\$ 83,803	\$ 83,924	\$ 88,676	\$ 88,676	PDS Staff
Coordination and Planning									
Lake Whatcom Homeowner Incentive Program		\$ 56,731		\$ 56,731		\$ 56,731		\$ 60,244	Staff time only (0.5 FTE); contracted services under Stormwater budget
CosMos						\$ 10,000	\$ 100,000	\$ 125,000	CosMos Project \$125 with funding (RD 40%, BB 10%, GF 30%)+10k for additional buoys
WSU Extension outreach services		\$ 25,000		\$ 25,000		\$ 25,000		\$ 25,000	
TOTAL	\$ 582,401	\$ 1,356,722	\$ 758,300	\$ 1,559,428	\$ 582,500	\$ 1,366,942	\$ 591,500	\$ 1,487,665	
NET IMPACT TO FUND BALANCE	\$ (774,321)		\$ (801,128)		\$ (784,442)		\$ (896,165)		
TOTAL FOR COST CENTER	\$ 582,401	\$ 1,942,654	\$ 758,300	\$ 2,145,360	\$ 582,500	\$ 1,952,875	\$ 591,500	\$ 2,101,145	
		\$ 1,360,253		\$ 1,387,060		\$ 1,370,375		\$ 1,509,645	
*Integrated Salmon Recovery/Flood Hazard Reduction capital and planning projects appear under Cost Center 169114 and 169104.									

Flood Control Zone District
2020 Natural Resources Budget
Work Plan and Supporting Documentation

Acquatic Invasive Species (169120)	Original 2019 Budget		Supplemented 2019 Budget		Year End 2019 Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
AIS ADMINISTRATION									
Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Misc. Expenses
Office and operating		\$ -		\$ -		\$ -		\$ -	
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
NET IMPACT TO FUND BALANCE	\$ -		\$ -		\$ -		\$ -		
AIS OPERATIONS									
Coordination and Planning									
Education and Inspection									Contribution to City for AIS Program; includes COB program cost increase
Interlocal Agreement (COB)	\$ -	\$ 123,000		\$ 123,000		\$ 123,000		\$ 132,840	
AIS online education program website maintenance	\$ -	\$ 8,750		\$ 8,750		\$ 8,750		\$ 8,750	
TOTAL	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 141,590	
NET IMPACT TO FUND BALANCE	\$ (131,750)		\$ (131,750)		\$ (131,750)		\$ (141,590)		
TOTAL FOR COST CENTER	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 131,750	\$ -	\$ 141,590	
		\$ 131,750		\$ 131,750		\$ 131,750		\$ 141,590	
Water Planning (169121)	Original 2019 Budget		Supplemented 2019 Budget		Year End 2019 Projection		Proposed 2020 Budget		Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	
WATER PLANNING ADMINISTRATION									
Staff	\$ 56,265	\$ 112,529	\$ 56,265	\$ 112,529	\$ 56,265	\$ 112,529		\$ 113,483	Watershed Planner
Office and operating		\$ 550		\$ 550		\$ 550		\$ 550	
TOTAL	\$ 56,265	\$ 113,079	\$ 56,265	\$ 113,079	\$ 56,265	\$ 113,079	\$ -	\$ 114,033	
NET IMPACT TO FUND BALANCE	\$ (56,814)		\$ (56,814)		\$ (56,814)		\$ (114,033)		
WATER PLANNING OPERATIONS									
Coordination and Planning									
Hirst Response/Watershed Planning		\$ 200,000		\$ 209,643		\$ 209,643	\$ -	\$ 100,000	Contracts for watershed planning activities
LENS Groundwater Model		\$ -		\$ 90,659	\$ -	\$ 90,659	\$ -	\$ 100,000	Peer review and modification of gw model
LIO administration	\$ 75,000	\$ 67,950	\$ 75,000	\$ 67,950	\$ 75,000	\$ 67,950	\$ 67,950	\$ 67,950	Administration of LIO process
Stream Gauging				\$ 86,391		\$ 86,391		\$ 105,000	USGS Stream Monitoring/AESI GW Monitoring Contracts
TOTAL	\$ 75,000	\$ 267,950	\$ 75,000	\$ 454,643	\$ 75,000	\$ 454,643	\$ 67,950	\$ 372,950	
NET IMPACT TO FUND BALANCE	\$ (192,950)		\$ (379,643)		\$ (379,643)		\$ (305,000)		
TOTAL FOR COST CENTER	\$ 131,265	\$ 381,029	\$ 131,265	\$ 567,722	\$ 131,265	\$ 567,722	\$ 67,950	\$ 486,983	

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

**Jon Hutchings
Director**



STORMWATER
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FAX: (360) 778-6201
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MEMORANDUM

TO: The Whatcom County Flood Control Zone District Board of Supervisors

THROUGH: Jon Hutchings, Public Works Director

FROM: Kraig Olason, Stormwater Program Manager

DATE: September 6, 2019

RE: Proposed Resolution to Amend WCC 100.07 - Birch Bay Watershed & Aquatic Resources Management District Funding Mechanism and Interlocal Agreement between Whatcom County Flood Control Zone District and Birch Bay Water and Sewer District

Requested Action

Please find enclosed for your review and consideration a proposed resolution to amend the Birch Bay Watershed and Aquatic Resource Management District Funding Mechanism (WCC 100.07) and Rate Resolutions (Res 2008-049 & 2008-050). You will also find enclosed an interlocal agreement between the Whatcom County Flood Control Zone District (FCZD) and Birch Bay Water and Sewer District (BBWSD) concerning implementation of mutually beneficial programs, as well as a memo from BBWSD dated August 2010 providing rationale for the original stormwater fee exemption. Public Works requests the FCZD Board of Supervisors provide feedback following a brief presentation from staff regarding the proposed code amendment and ILA with BBWSD.

Background and Purpose

The purpose of the discussion at the Council Surface Water Work Session is to present council members with a brief presentation and to answer any questions regarding the proposed amendment to WCC 100.07 and the interlocal agreement between the FCZD and BBWSD.

BBWSD works regularly with the FCZD through its Sub-Flood Zone, the Birch Bay Watershed and Aquatic Resources Management (BBWARM) district. Both districts share the same goals of protecting Birch Bay's water quality, managing stormwater and providing critical utility services to rate payers in the districts. During major storm events, significant volumes of stormwater effluent enter the BBWSD's sanitary sewer system. Excessive stormwater increases treatment plant costs and sewer rates.

The majority of BBWARM rate payers are also BBWSD rate payers. Collaborative efforts that seek to improve stormwater drainage options can often result in reduced quantities of stormwater entering the systems, which can reduce the amount of effluent requiring treatment and subsequent treatment costs. In 2011, an interlocal agreement (ILA) was signed by the two districts that describes the relationship between the two agencies, common areas of concern and shared goals. This agreement also provides a rationale for dispensing with charging fees by either party and emphasizes the types of planning, programming and collaborative projects that would be undertaken. This agreement expired at the end

of 2016. Due to a collaborative construction project in 2019, the attached five-year ILA includes minor revisions to reflect recent changes and updates.

A review of the ILA by the County's attorney resulted in a suggestion to amend the resolution establishing the BBWARM rates and exemptions criteria to provide basis for not charging the BBWSD.

One change is being proposed to WCC 100.07.080 – Exemption – Birch Bay Watershed and Aquatic Resources Management District. It provides BBWSD an exemption from fees associated with impervious surfaces as long as an interlocal agreement between BBWSD and FCZD is in effect.

The attached ILA has been reviewed and approved by the county's finance and legal departments, as well as BBWSD.

Funding Amount and Source

No funding source is required; fees are more than off-set by collaborative programs and current costs of stormwater treatment.

Please contact Holly Faulstich at extension 6290 if you have any questions or concerns regarding the terms of this agreement.

Encl.

- Exhibit A: Proposed resolution adopting changes to WCC 100.07 (BBWARM).
- Exhibit B: Interlocal agreement between BBWSD and Whatcom County FCZD.
- Exhibit C: August 2010 memo from BBWSD providing rationale for stormwater fee exemption.

EXHIBIT A

PROPOSED BY: PUBLIC WORKS
INTRODUCTION DATE: _____

RESOLUTION NO. _____

**ADOPTING CHANGES TO WCC 100.07 BIRCH BAY WATERSHED AND AQUATIC
RESOURCES MANAGEMENT DISTRICT FUNDING MECHANISM, BY ADDING AN
EXEMPTION FOR THE BIRCH BAY WATER AND SEWER DISTRICT**

**(Council acting as the Whatcom County Flood Control Zone District Board of
Supervisors)**

WHEREAS, on March 13, 2007, the Whatcom County Flood Control Zone District Board of Supervisors adopted Ordinance 2007-019 which created the Birch Bay Watershed and Aquatic Resources Management (BBWARM) District pursuant to RCW 86.15; and,

WHEREAS, RCW 86.15.160 (4) authorizes a charge for the furnishing of service to those who are receiving or will receive benefits from stormwater control facilities and programs and who are contributing to an increase in surface water runoff (Res 2008-049 & Res 2008-050); and,

WHEREAS, implementation of the Birch Bay Comprehensive Stormwater Plan is needed to solve many of the current stormwater management problems in the Birch Bay Watershed; and,

WHEREAS, the Birch Bay Water and Sewer District (BBWSD) works regularly with BBWARM and both districts share the same goals of protecting Birch Bay's water quality, managing stormwater and providing critical utility services to rate payers in the districts; and,

WHEREAS, the majority of BBWARM rate payers are also BBWSD rate payers; and,

WHEREAS, collaborative efforts between the districts that seek to improve stormwater drainage options often result in reduced quantities of stormwater entering the systems, which can reduce the amount of effluent requiring treatment and subsequent treatment costs; and,

WHEREAS, in 2011, an interlocal agreement was signed by the two districts that describes the relationship between the two agencies, common areas of concern and shared goals; and,

WHEREAS, this interlocal agreement also provides a rationale for dispensing with charging fees by either party and emphasizes the types of planning, programming, and collaborative projects that would be undertaken; and,

WHEREAS, while endeavoring to renew the expired interlocal agreement, it was suggested by the County's attorney that the resolution establishing the BBWARM rates and exemptions criteria be amended to provide a provision for not charging the BBWSD,

1 **NOW, THEREFORE, BE IT RESOLVED** by the Whatcom County Flood Control Zone
2 District Board of Supervisors that Whatcom County Code 100.07 Birch Bay Watershed and
3 Aquatic Resources Management District Funding Mechanism is hereby amended as outlined
4 in Exhibit A1 of this resolution. The new text appears as underlined.

5
6 **APPROVED** this ____ day of _____, 20____.

7
8
9
10 ATTEST:

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

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

Rud Browne, Council Chair

15
16 WHATCOM COUNTY EXECUTIVE
17 APPROVED AS TO FORM:

WHATCOM COUNTY, WASHINGTON

18
19 _____
20
21 Civil Deputy Prosecutor

Jack Louws, County Executive

() Approved () Denied

23
24
25 Date Signed: _____
26
27

EXHIBIT A1

New language appears as underlined.

100.07.080 Exemptions.

A. Property that is owned by, and is the personal residence of, a person or persons approved by the county assessor for a senior citizen or disabled persons property tax exemption under RCW 84.36.381 shall be exempt from the service charge. Any person eligible for this low-income, senior citizen, or disabled persons exemption shall be provided a refund of annual service charges for the subject property for the first year the exemption is sought and for up to three prior years; provided, that eligibility for each year has been approved by the assessor's office; and provided further, that refunds shall not be approved for any year prior to 2009. (Res. 2009-015 § 1 (Exh. A); Res. 2008-049 § 1 (Exh. A § 8)).

B. Properties owned by BBWSD are exempted from BBWARM stormwater fees provided an interlocal agreement is in effect between BBWSD and WCFCZD.

Interlocal Agreement

Whatcom County Flood Control Zone District and Birch Bay Water and Sewer District for the Birch Bay Watershed Aquatic and Resources Management District Program Implementation

This Interlocal Agreement (“Agreement”) is entered into by and between the Whatcom County Flood Control Zone District and the Birch Bay Water and Sewer District (“BBWSD”), referred to herein collectively as the “Parties,” pursuant to Chapter 39.34 RCW.

WHEREAS, the BBWSD and the Whatcom County Flood Control Zone District (“FCZD”) through its Sub-Flood Zone, the Birch Bay Watershed and Aquatic Resources Management District (“BBWARM”), desire to work cooperatively to implement programs that are mutually beneficial; and

WHEREAS, the Parties share common goals and compatible programs that seek to protect Birch Bay’s water quality by minimizing impacts of development and limiting negative environmental and economic effects of stormwater; and

WHEREAS, stormwater enters the BBWSD sanitary sewer system in the form of Infiltration and Inflow (I & I) and is conveyed and treated by BBWSD at a substantial cost to BBWSD rate payers; and

WHEREAS, BBWSD operates under terms of NPDES Permit WA-002955-6 that prohibits discharge to the wastewater treatment plant of stormwater and other direct inflow sources and requires that the BBWSD endeavor to remove excess I & I from its system; and

WHEREAS, the BBWSD is committed to removing excess I & I from its system; and

WHEREAS, efficiencies gained through improved stormwater conveyance and water quality treatment systems will save community sewer rate payers in both sanitary sewer operation costs as well as capital costs required for increased conveyance and treatment plant capacity; and

WHEREAS, current costs of treating stormwater incurred by BBWSD exceeds their assessed BBWARM fees; and

WHEREAS, the majority of the rate payers in the BBWARM District are also rate payers of the BBWSD; and

WHEREAS, collaboration on public education programs, information sharing, joint project planning and coordination of infrastructure development is in the best interest of the rate payers and the community,

NOW THEREFORE, the Parties agree as follows:

- I. *Purpose:* The purpose of this Agreement is to set the terms whereby the Parties will work together on mutually beneficial projects and programs in lieu of charging each other rates or fees for each Party’s respective services.
- II. *Administration:* No new or separate legal or administrative entity is created to administer the provisions of this agreement.
- III. *Whatcom County Flood Control Zone District Responsibilities:* The FCZD through the BBWARM Sub-Flood Zone District will implement a comprehensive stormwater program within the

BBWARM District Boundaries area. Implementation of said program will include regular communication and interaction with the BBWSD. Specific activities of the FCZD shall include:

- a. Regular meetings with BBWSD – annually or more often as needed
- b. Joint planning with BBWSD for major infrastructure projects
- c. Information sharing with BBWSD
- d. Collaborative program development with BBWSD, such as:
 - i. Public education
 - ii. Inflow and infiltration program
 - iii. Major and minor infrastructure projects
 - iv. Other activities of mutual benefit

IV. *Birch Bay Water and Sewer District Responsibilities:* BBWSD hereby agrees to work collaboratively with BBWARM where deemed mutually beneficial to both Parties, including items “III a-d” above and handling I & I entering the sanitary sewer system.

V. *Payment:* Any payments under this Agreement shall be in the form of reimbursement for costs incurred for programs or special projects. Each request for payment herein must be agreed upon in writing by the Parties prior to performance of said services and prior to incurring said costs and is to be submitted in the usual form of a claim for services rendered or costs incurred supported by detailed documentation of the services actually performed or costs incurred so as to comply with auditing requirements. Each reimbursement payment shall be made upon approved claims and in accordance with customary procedures. Reimbursement payments due pursuant to this paragraph shall survive termination of this Agreement.

VI. *Fees:* Neither Party will impose fees for utility service provided; except as provided herein. The FCZD and BBWARM will not charge the BBWSD for fees associated with impervious surfaces attributed to the BBWSD, and the BBWSD will not charge BBWARM for any costs associated with BBWSD’s treatment of stormwater entering the sanitary sewer system. Notwithstanding the foregoing, the fee exemption set forth herein shall not apply to connection or service charges due to BBWSD in the event FCZD or BBWARM require water or sewer utility service for an office or other facility.

VII. *Term:* This Agreement shall be in effect retroactive to January 1, 2019 and shall expire on December 31, 2024. This Agreement may be renewed for additional five (5) year terms by mutual written agreement of both Parties hereto.

VIII. *Termination:* This Agreement may be terminated by any Party effective January 1st of any year in which this Agreement is in effect by giving written notice to the other Party on or before September 30th of the immediately preceding year.

IX. *Responsible Persons:* The persons responsible for administration of this Agreement shall be the Whatcom County Public Works Director and the BBWSD General Manager, or their designees.

- X. *Treatment of Assets and Property:* No fixed assets or personal or real property will be jointly or cooperatively acquired, held, used or disposed of pursuant to this Agreement.
- XI. *Indemnification:* Each Party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their officials, officers, agents, or employees to the fullest extent required by law, and further agree to save, indemnify, defend and hold the other Party harmless from any such liability. It is further provided that no liability shall attach to the Parties by reason of entering into this Agreement except as expressly provided herein.
- XII. *Modifications:* This Agreement may be changed, modified, amended, or waived only by written agreement executed by the Parties hereto. Waiver or breach of any term or condition of this Agreement shall not be considered a waiver of any prior or subsequent breach.
- XIII. *Applicable Law:* In the performance of this Agreement, it is mutually understood and agreed upon by the Parties hereto that this Agreement shall be governed by the laws of the State of Washington both as to interpretation and performance, and the venue of any action arising herefrom shall be in the Superior Court of the State of Washington in and for Whatcom County.
- XIV. *Severability:* In the event any term or condition of this Agreement or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other terms, conditions, or applications of this Agreement that can be given effect without the invalid term, condition, or application. To this end the terms and conditions of this agreement are declared severable.
- XV. *Entire Agreement:* This Agreement contains all the terms and conditions agreed upon by the Parties. All items incorporated herein by reference are attached. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the Parties hereto.
- XVI. *Recordation:* Upon execution of this Agreement, Whatcom County FCZD shall record a copy of it with the office of the Whatcom County Auditor pursuant to the requirements of RCW 39.34 and provide a copy of same to BBWSD.

IN WITNESS WHEREOF, the parties have signed this Agreement this _____ of _____, 2019.

BIRCH BAY WATER AND SEWER DISTRICT

By: Don Montfort, Board President

WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT

By: Jack Louws, Whatcom County Executive

STATE OF WASHINGTON)
) ss
COUNTY OF WHATCOM)

On this ____ day of _____, 2019, before me personally appeared Don Montfort, to me known to be the President of the Birch Bay Water and Sewer District, 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 _____.

STATE OF WASHINGTON)
) ss
COUNTY OF WHATCOM)

On this ____ day of _____, 2019, before me personally appeared Jack Louws, to me known to be the Board of Supervisors Chair of Whatcom County Flood Control Zone District, 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 _____.



Birch Bay Water and Sewer District

Serving the Greater Birch Bay Area Since 1968

7096 POINT WHITEHORN ROAD
BIRCH BAY, WASHINGTON 98230-9675
E-MAIL: office@waterdistrict.birch-bay.wa.us

PHONE: (360) 371-7100 (24 hrs)
FAX: (360) 371-2806

COMMISSIONERS

Carl Reichhardt
Don Montfort
Patrick Alesse

GENERAL MANAGER

Roger M. Brown

August 30, 2010

Kraig Olason
WCPW - Stormwater Division
322 N. Commercial, Suite 301
Bellingham, WA 98225

Dear Kraig:


The BBWARM rate ordinance¹ currently exempts state, city and county streets. The rationale for this exemption is stated in BBWARM's 2009 Annual Report: "Streets serve to convey surface water runoff to the benefit of the storm water system and so are exempted from the charge."² Like the streets which have been exempted from the BBWARM fee, the District's wastewater collection system conveys large volumes of surface water runoff to the benefit of the storm water system. Because we share BBWARM's concern with protecting water quality, moreover, the District treats the extraneous storm water in its system to rigorous standards prior to discharge and has historically facilitated elimination of onsite septic systems in the Birch Bay area.

We believe the existence of shared and complementary goals argues for continued coordination of BBWSD and District programs rather than one agency charging the other for services. Hence, the District requests that the Whatcom County Flood Control Zone District Board of Supervisors exempt the District from the BBWARM fee. The rationale for this proposed exemption is explained more fully in the attached paper.

The District also notes that the BBWARM fee does not currently apply to undeveloped parcels. We view this exemption as questionable, because undeveloped property does produce significant runoff, especially under severe weather conditions. We believe such runoff impacts both the BBWARM storm water management infrastructure and the District's wastewater collection and treatment system. Therefore, we request that BBWARM review the appropriateness of exempting undeveloped property from the BBWARM fee.

Thank you for your attention to our concerns. If I can assist you in your review, please let me know.

Sincerely,


Roger M. Brown

c Board of Commissioners

Enclosures (1)

¹ Whatcom County Code Chapter 100.07.050(D)(2).

² BBWARM District 2009 Annual Report, page 10.

EXEMPTION OF BIRCH BAY WATER AND SEWER DISTRICT FROM BBWARM FEE

The BBWARM fee is based on impervious surface area and a density factor applied to each parcel in BBWARM's service area. Impervious surface area is expressed in terms of residential Equivalent Service Units (ESUs), which is used to recover BBWARM's fixed costs. Each parcel is also classified according to the density of its impervious surface and assigned to Low, Medium or High density categories. A density charge applied to each parcel's ESUs recovers BBWARM's variable costs.

BBWARM's legislative authority, the Whatcom County Flood Control Zone District Board of Supervisors ("Board"), may decide to exempt certain properties from the BBWARM fee, when the Board deems such exemptions appropriate for policy reasons. For example, the BBWARM rate ordinance¹ exempts state, city and county streets. The rationale for this exemption is stated in BBWARM's 2009 Annual Report: "Streets serve to convey surface water runoff to the benefit of the storm water system and so are exempted from the charge."² In addition, parcels without impervious surfaces pay no BBWARM fee. The reason for this exemption is not entirely clear, although it may be designed to "encourage the retention of open space."³

Because the BBWARM charge is structured as a fee rather than a tax, public agencies are not routinely exempt from payment, with the 2010 BBWARM fee for Birch Bay Water and Sewer District ("District") totaling \$5,084.84. For the reasons set forth below, the District requests that the Board exempt District properties from the BBWARM fee.

Common Goals of BBWARM and District

BBWARM District 2009 Annual Report states "[BBWARM] was established ...to manage stormwater in the Birch Bay Watershed and address concerns about water quality problems..."⁴ The District shares BBWARM's concerns with storm water and water quality in the Birch Bay area.

District management of storm water. The District's NPDES permit and District Code prohibit the direct discharge of storm water to the District's wastewater collection system. During wet

¹ Whatcom County Code Chapter 100.07.050(D)(2).

² BBWARM District 2009 Annual Report, page 10.

³ Whatcom County Code Chapter 100.07.020.

⁴ BBWARM District 2009 Annual Report, page 1.

weather, however, storm water enters the public sewer system through manholes, leaking side sewers, illegal downspout connections and cracks and leaking joints in the sewer pipes. This extraneous flow is called Infiltration and Inflow (I & I). The District's NPDES permit requires the reduction or elimination of excessive I & I, implicitly recognizing that the sewer system – even when functioning properly - will contain significant storm water, especially during wet weather.

For example, as shown in the attached graph, storm water comprised a substantial share of the flow to the District's WWTP during wet weather months. From 2007-2009, storm water comprised 23% of total flow to the WWTP during wet weather months. On the days when flow to the WWTP was at its peak (i.e., during major storm events), the relative amount of storm water flow averaged 69% of total WWTP flow. This storm water flow must be treated at the WWTP and requires hydraulic capacity throughout the District's wastewater system.

District protection of water quality in Birch Bay. Created by a vote of the people in 1968, the District operates as a municipal government under Chapter 57 Revised Code of Washington under policy direction of an elected three-member board of commissioners. The main impetus for formation of the District was concern about water quality impacts on Birch Bay. These concerns are documented in the District's 1970 Comprehensive Plan:⁵

“Waste disposal consists of individual septic tanks and drain fields with a few septic systems discharging effluent directly into the waters of Birch Bay. In most areas, soil conditions are not suitable for proper septic system operation.” – pg. 2

“It was not until the latter part of 1966 that the increase in residents and resort activity made evident a problem of even greater magnitude than that of water pollution to the Bay area caused by malfunctioning and overloaded septic systems.” – pg.4

“The serious nature of the situation was impressed upon the community by the Washington State Health Department and precipitated efforts to correct the worsening condition through formation of another public utility.” – pg. 4

“Of prime importance now, was the installation of a sewerage system to abate the pollution of shallow Birch Bay ...” – pg. 4

⁵ Hill, Ingman, Chase & Co. General and Comprehensive Water and Sewerage Plans for Whatcom County Water District No. 8. Seattle: U.R.S. Systems Corp., 1970.

DRAFT

The District responded to these environmental issues by constructing a sanitary sewer system, including a wastewater treatment plant (WWTP) with a secondary effluent outfall lying 1,500 feet off Point Whitehorn near the Georgia Strait in 50 feet of salt water. The District's WWTP and outfall are regulated pursuant to a National Pollutant Discharge Elimination System (NPDES) permit designed to protect receiving water quality. The Department of Ecology (DOE) has recognized the District a number of times for perfect compliance with all conditions of the NPDES permit (see attached article).

Development of the District's sanitary sewer system facilitated elimination of onsite septic systems in the Birch Bay area. According to the District's 1978 *General and Comprehensive Plan for Water and Sewerage Facilities*, the District began issuing sewer connection permits in September 1976. By July 2010, the District had made 4,482 connections to the sanitary sewer system.

On March 15, 2001, DOH reduced the closure zone around the District's outfall from 2,640 feet to 1,380 feet, an area no longer extending to the shoreline or intertidal beaches at Point Whitehorn. This action, which reopened 1.5 miles of beaches around Point Whitehorn to recreational shellfishing, was based on DOH's evaluation of the District's WWTP operation and inspecting and testing at monitoring sites near Point Whitehorn (see attached article).

Benefits to BBWARM

Much like the streets which have been exempted from the BBWARM fee, the District's wastewater collection system conveys surface water runoff to the benefit of the storm water system. In addition, the District's system treats surface water to rigorous standards prior to discharge. The District does not charge BBWARM for these services.

Collaboration

The BBWARM 2010 Work Plan seeks to "Partner with other organizations on programs or projects that serve to protect or restore water and aquatic resources in the Birch Bay Watershed." Accordingly, BBWARM and District staff have implemented quarterly meetings to identify opportunities to coordinate activities to enhance service to the Birch Bay community. Here are a few examples of activities being discussed and/or implemented.

BBWARM is sponsoring a native plant workshop which will also cover alternatives to traditional lawn turf. Like the rain barrel promotion, these presentations are consistent with District objectives for the Water Conservation Program. BBWARM will hold this event at the District's headquarters facility in Birch Bay with District staff support.

Because of the general similarity of the two programs, the District shared space in its information booth with BBWARM at Discovery Days this year.

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With support from the City of Blaine, the District provides education on Water Conservation to the Blaine School District each year. BBWARM elements may potentially be incorporated into the school education program in the future.

The District operates a Water Conservation Program, which includes promotion of rain barrels as a tool for managing water demand. Because BBWARM is considering the use of rain barrels to help manage storm water, there is potential for coordinating these efforts for mutual benefit.

As the District implements efforts to reduce or eliminate I & I – keeping it out of the District's sewer system – it necessarily creates additional flow that must be managed within the BBWARM system. District and BBWARM efforts will be most efficient and effective if these activities are carefully coordinated.

SUMMARY

Both BBWARM and the District are concerned with managing storm water efficiently while protecting public and environmental health. The existence of shared and complementary goals argues for coordination of BBWSD and District programs rather than one agency charging the other for services. Hence, the District requests that the Board exempt the District from the BBWARM fee.

Birch Bay water sewer district lauded by DOE

BY REBECCA SCHWARZ KOPF

Birch Bay Water and Sewer District was recognized last week by the Department of Ecology for operating an outstanding water treatment plant.

The district was awarded with the "Outstanding Wastewater Treatment Plant" award, for the fourth year in a row. There are only about 31 plants out of approximately 300 wastewater treatment plants in the state that were in 100 percent compliance with the conditions stipulated in their NPDES (National Pollutant Discharge Elimination System) wastewater discharge permits during 2002.

In the award notification letter, the Department of Ecology (DOE) states, "Birch Bay Wastewater Treatment Plant is run by dedicated workers with operation, maintenance, engineering and administrative support that combined to ensure outstanding compliance. Qualified operators are critical for successful plant operations and the protection of our state's water quality."

Richard Grout of the DOE said the Birch Bay treatment plant has shown a tremendous amount of work. "Four years of perfection - that's really a big thing," he said.

Grout, as well as DOE permit manager Mark Henderson presented a plaque to wastewater manager Steve Hovde and staff last Thursday at the plant.



▲ The department of ecology presented an "outstanding wastewater treatment plant" award to the Birch Bay water and sewer district last week. From left; Mark Henderson with the DOE, Fred Reid, Jeff Brant, Mike Roof, Steve Hovde, Roger Brown, and Richard Grout (DOE)

Photo by Rebecca Schwarz K

Award...

(continued from page 1)

"They had to get everything right. That's pretty much an incredible thing to do," Henderson said, noting the plant had to hit all of the water quality parameters and limits.

"It's pretty easy to mess up when you're dealing with millions of gallons," Henderson said. "To receive this award four years in a row is big."

On an annual average, Henderson said, about 622,000 gallons go through the plant each day.

"We're honored to be included among this year's 31 award recipients. Even better, Birch Bay is one of only four facilities state-wide to receive this award the past four consecutive years. That puts this operation in the top one percent," said general manager Roger Brown.

Hovde said that receiving the compliance award four years in a row represents a tremendous amount of hard work and dedication on the part of plant operators Mike Roof, Fred Reid and Jeff Brant and the rest of the district staff that supports and assists

wastewater operation. He also noted that the Birch Bay community and the district board of commissioners have provided the tools needed to do a top-notch job, including equipment, training and operation and maintenance funding.

"These 100 percent compliance

awards translate to a job well done in protecting our receiving water and keeping our beaches clean," Hovde said.

The only other plants in the county to receive this award were Newhalem and Post Point Bellingham.



▲ Richard Grout, right, of the Department of Ecology, presented the award to Birch Bay water-sewer district manager Steve Hovde last week.

Photo by Rebecca Schwarz K

THE BELLINGHAM HERALD EDITORIAL BOARD

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OPINION

Shellfish opening a good sign

RESOURCES: Efforts by Birch Bay Water and Sewer District to curb pollution are model for tainted sites elsewhere.

It's been a long, long time since there was any good news about Birch Bay shellfish — or most shellfish in Puget Sound outside of aquaculture enclosures.

Last week, the state Department of Health announced that for the first time in 25 years, the Point Whitehorn beach is open for recreational shellfish harvest. That's enough time for a whole new generation to have been born in most families.

Anyone who has ever been clamming as a kid or with a kid can tell you it's a memorable experience — and one likely to



Stop the presses.

The state Department of Health has been studying the shellfish along a 10-mile stretch of beach southwest of Birch Bay State Park for years and has finally concluded that the Birch Bay Water and Sewer District outfall has no negative effects on shellfish health and that shellfish aren't absorbing any contaminants that might be harmful to the humans who eat them. As a blanket rule, the state closes shellfish harvests within a half-mile

draw tourist dollars into the area.

But aside from being a great family activity, the opening of the shellfish bed is a sign of something gone right in terms of controlling pollution.

of waste water treatment plant outfall pipes because viruses and toxins found in things like household cleaners could contaminate the shellfish.

In this case, however, the plant has been shown to be doing a good job of not releasing contaminants into the bay, so the state has made an exception to the rule.

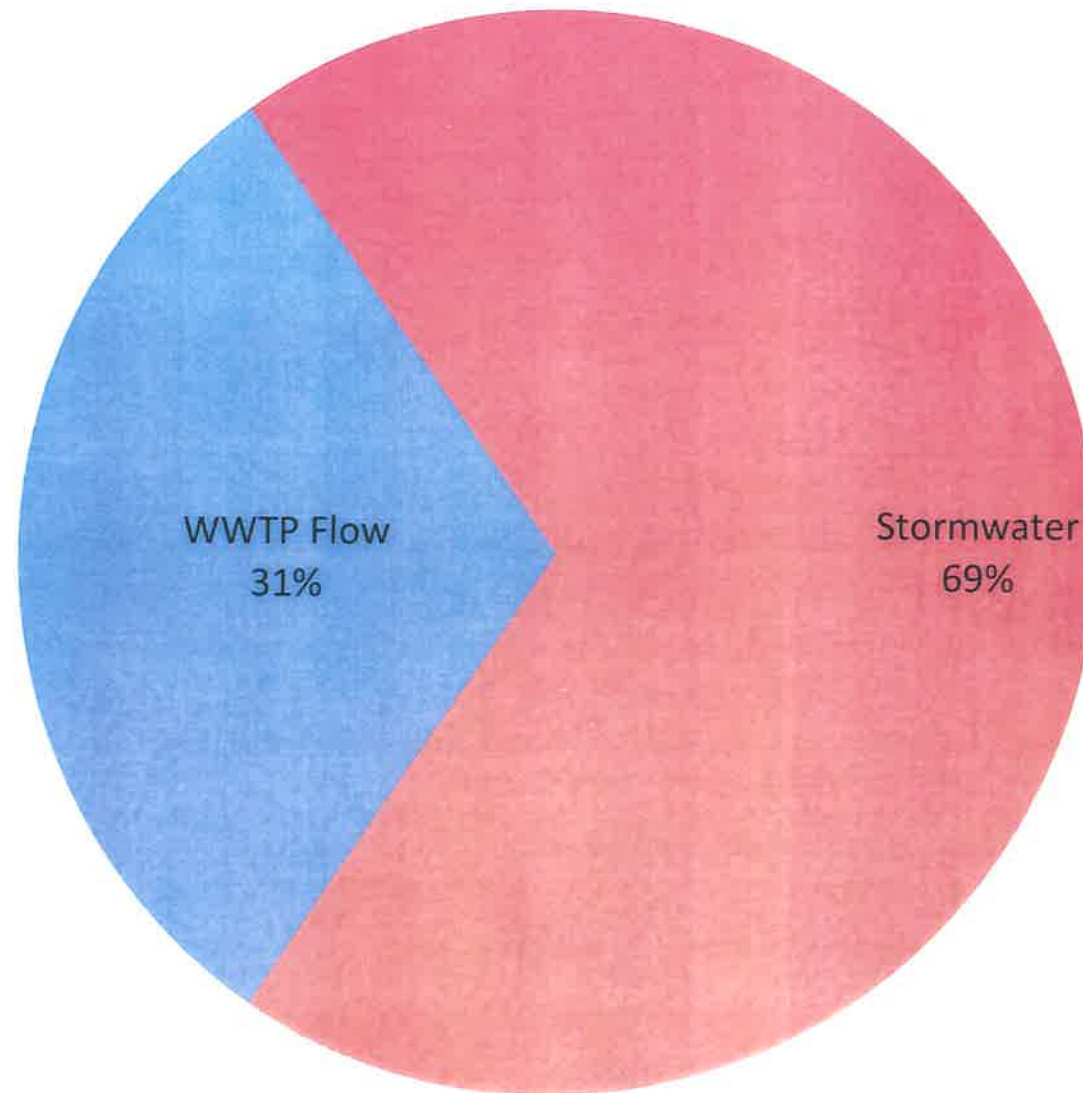
Sewer district Manager Roger Brown can give himself and his crew a pat on the back for keeping systems upgraded and in good working order and allowing the shellfish bed to reopen. Last month, the district completed a \$1.5 million renovation to expand capacity and modernize equipment and did so without raising costs for ratepayers. With the increased capacity, the effluent it pumps out will be even cleaner than what the

Health Department has studied.

The same is not true in Drayton Harbor, the site of the Blaine sewage treatment plant and several shellfish beds that have been closed for years because of high levels of fecal coliform that have been measured in the water. Drayton Harbor has been getting increasingly worse and Health Department officials have closed larger and larger sections of it to harvest.

The opening of Point Whitehorn to recreational clamming is a positive for our community not only for the tourist draw and family fun, but also because it provides a positive example of how things should be done elsewhere and it shows how we can use technology as one tool to help do better by our environment.

2007-2009 Peak Day Wet Weather Stormwater Flow to WWTP



2007-2009 Wet Weather Stormwater Flow to WWTP

