



CITY OF BLAINE

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Approving Authority

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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

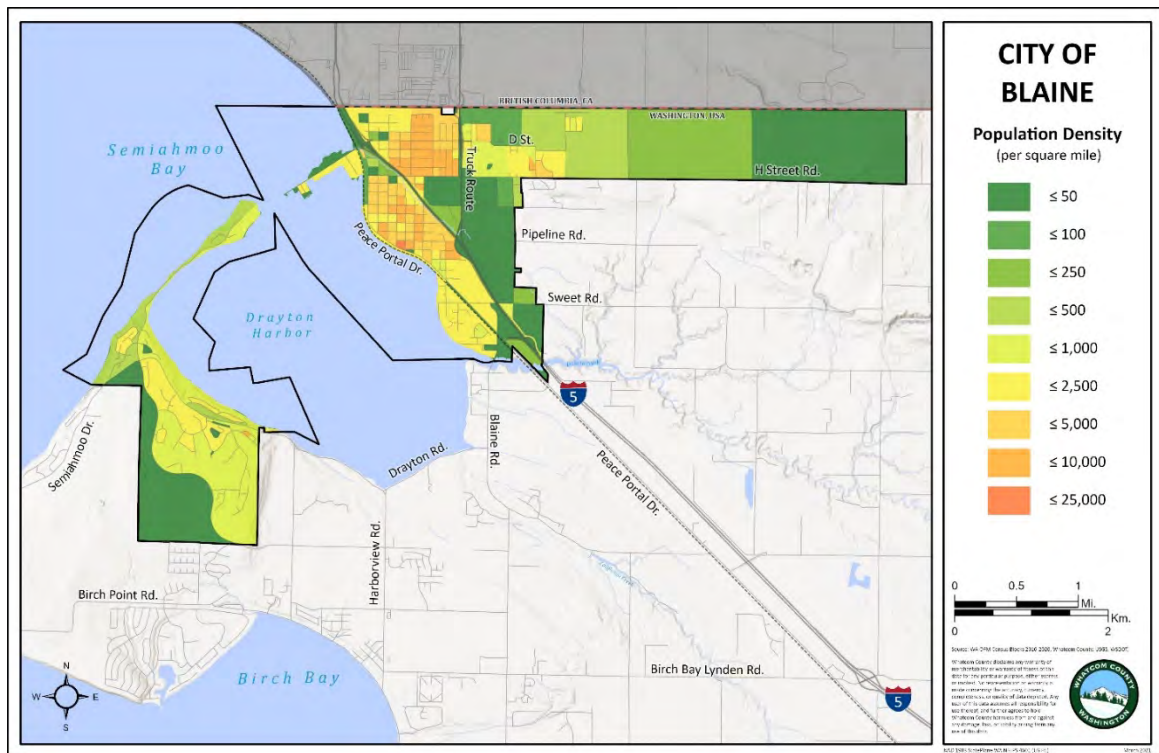
Program	Yes/No, Year Adopted	Description
<p>Nonprofit organizations or local residents groups focused on hazard mitigation, emergency preparedness, vulnerable populations, etc.</p>		<p>Whatcom Unified Emergency Operations Center participates in the CERT program.</p> <p>Blaine residents are part of the Mt Baker chapter of Red Cross.</p>
<p>Ongoing public education or information programs</p>	<p>Yes,</p>	<p>Blaine is a part of the Whatcom Water Alliance which educates residents about outdoor water conservation.</p> <p>Blaine participates in the Great Shakeout (Earthquake preparedness drill) on an every-other-year basis.</p>
<p>School-related programs for natural hazard safety</p>	<p>No</p>	<p>Blaine School District practices routine drills in the classroom.</p>
<p>StormReady certification</p>	<p>No</p>	<p>Whatcom County is a StormReady certified county.</p>
<p>Firewise Community certification</p>	<p>No</p>	<p>Blaine does not have any Firewise sites.</p>
<p>Public-Private Partnership initiatives addressing disaster-related issues</p>	<p>No</p>	
<p>Other</p>		



Overview of Blaine, Hazards and Assets

Geography of Blaine

Blaine Population	5,520 (2020 estimate)
Total area	8.62 sq. mi. (within city limits)

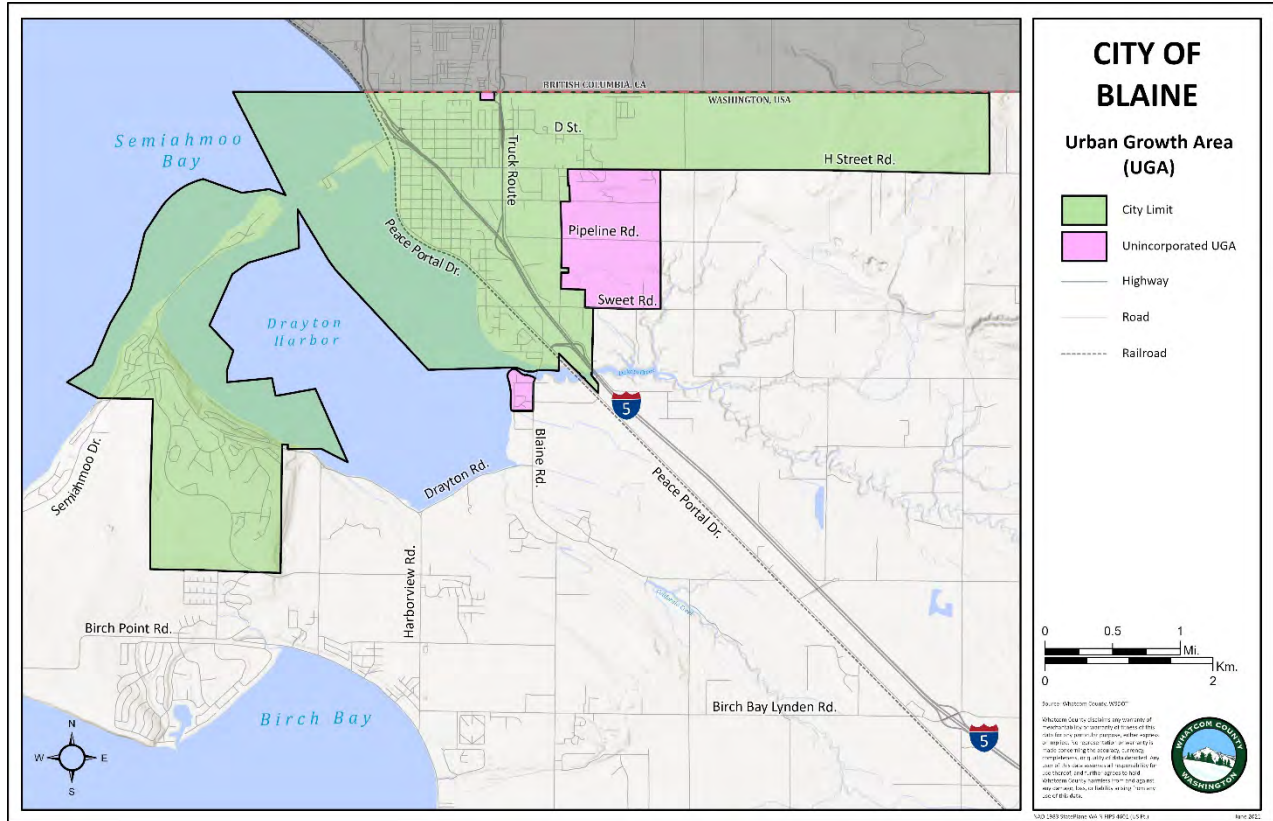


Washington State Office of Financial Management (OFM) 2020 population and housing estimates for 2010-2020 census block data. This map uses the 2016-2020 average population to show population density per square mile



Growth Trends

This map displays the UGA for the City of Blaine, as designated by the Whatcom County Comprehensive Plan.





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%		

Exhibit A



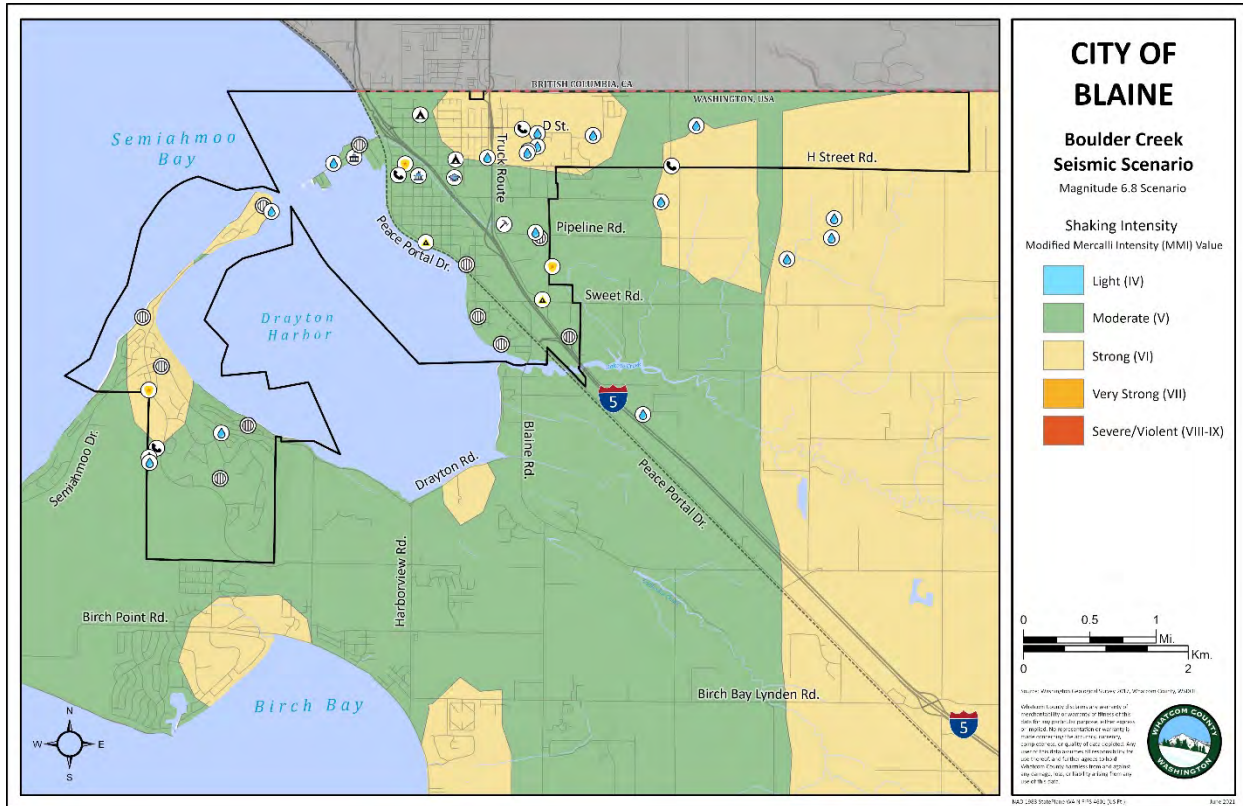
Meteorological	Wildfire	45.1%	Moderate	Outlying homes in the East Blaine and Semiahmoo neighborhoods are in wooded areas, which can be at risk to seasonal wildland fire danger.
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Severity Scale: **None** = no impact to community function
Low = minor degradation of community functions, not widespread
Moderate = moderate degradation over multiple weeks or widespread
High = degradation or loss over many weeks, widespread



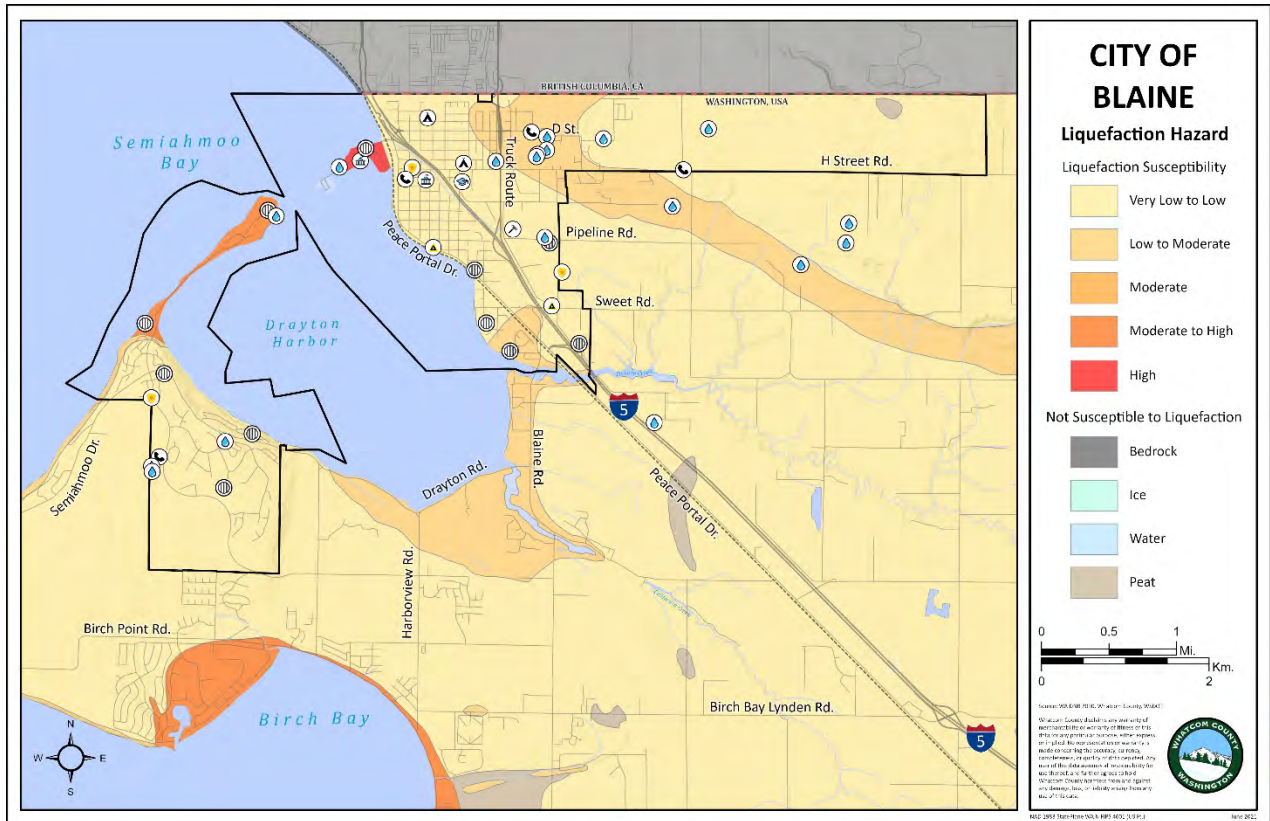
Natural Hazard Maps

The following figures depict the natural hazards present within the jurisdiction.

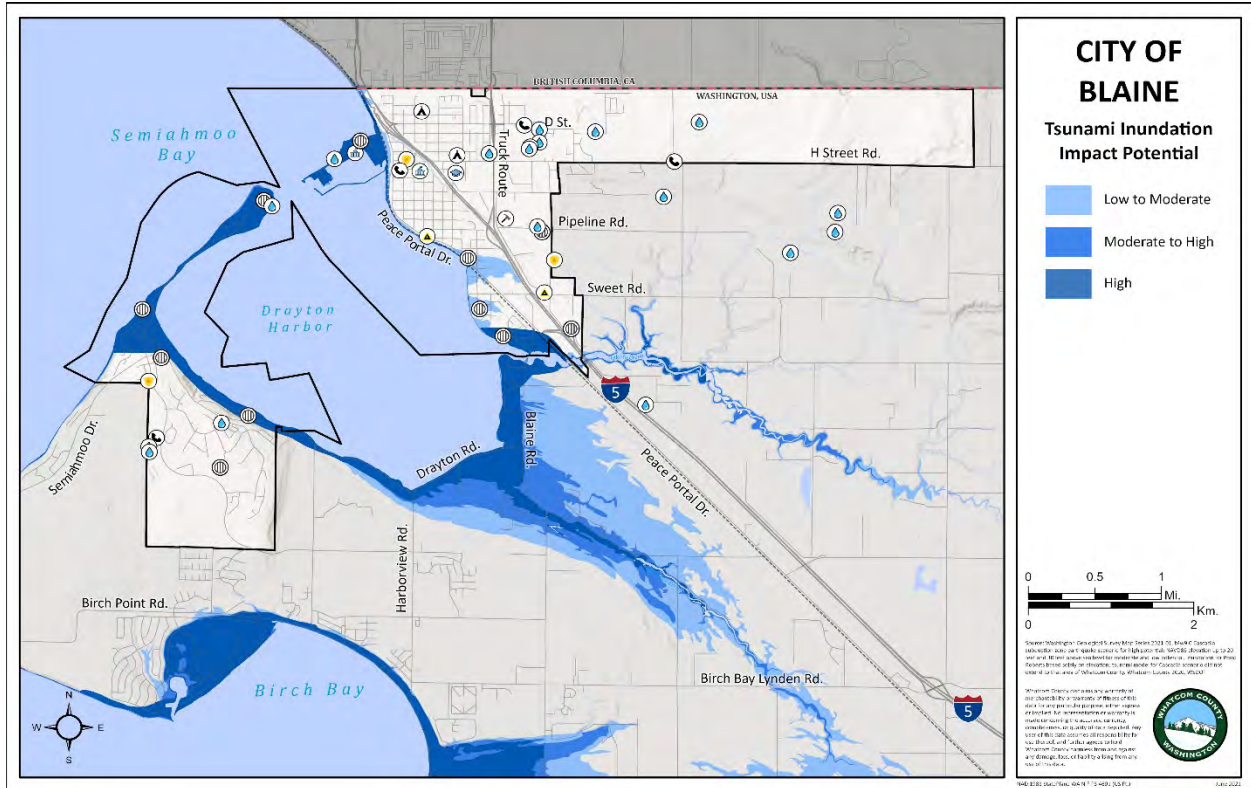


Washington Department of Natural Resources (WA DNR) 2017 Boulder Creek Fault Zone seismic scenario of magnitude 6.8 data. Displays extent and severity of the modeled earthquake in the Modified Mercalli Intensity (MMI) scale.

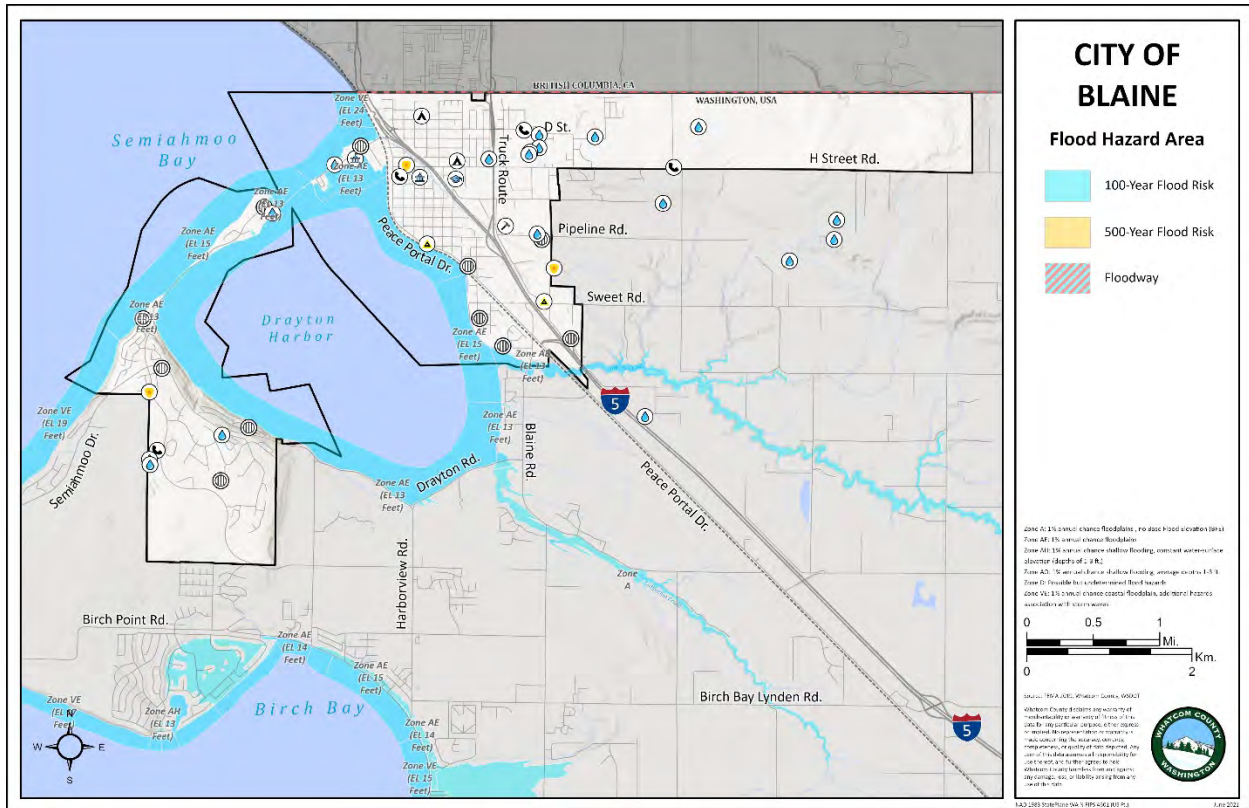
Exhibit A



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.

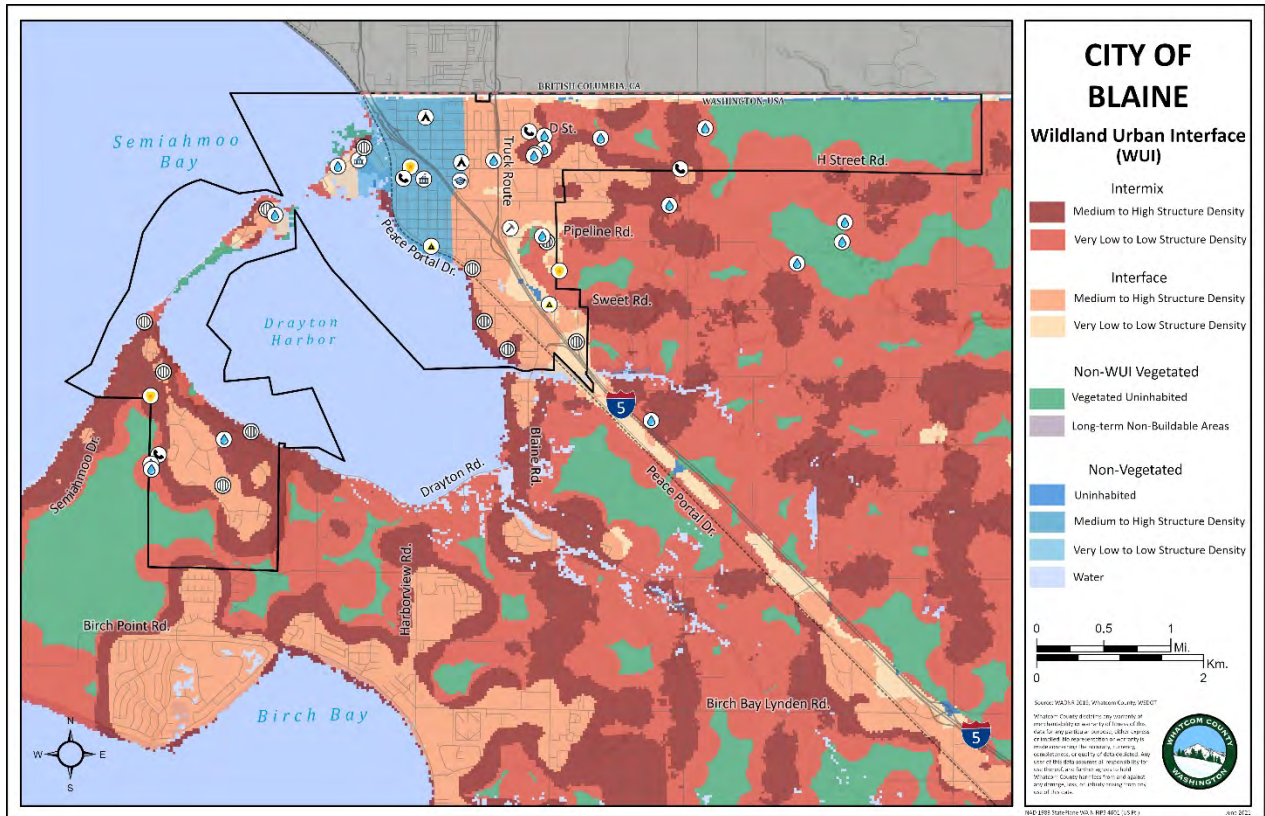


Map of Blaine tsunami inundation impact potential. The high impact potential zone is based upon Washington Geological Survey Map Series 2021-01, Mw9.0 Cascadia subduction zone earthquake scenario occurring at mean high tide. The moderate to high and the low to moderate impact potential areas are based 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.

Exhibit A



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

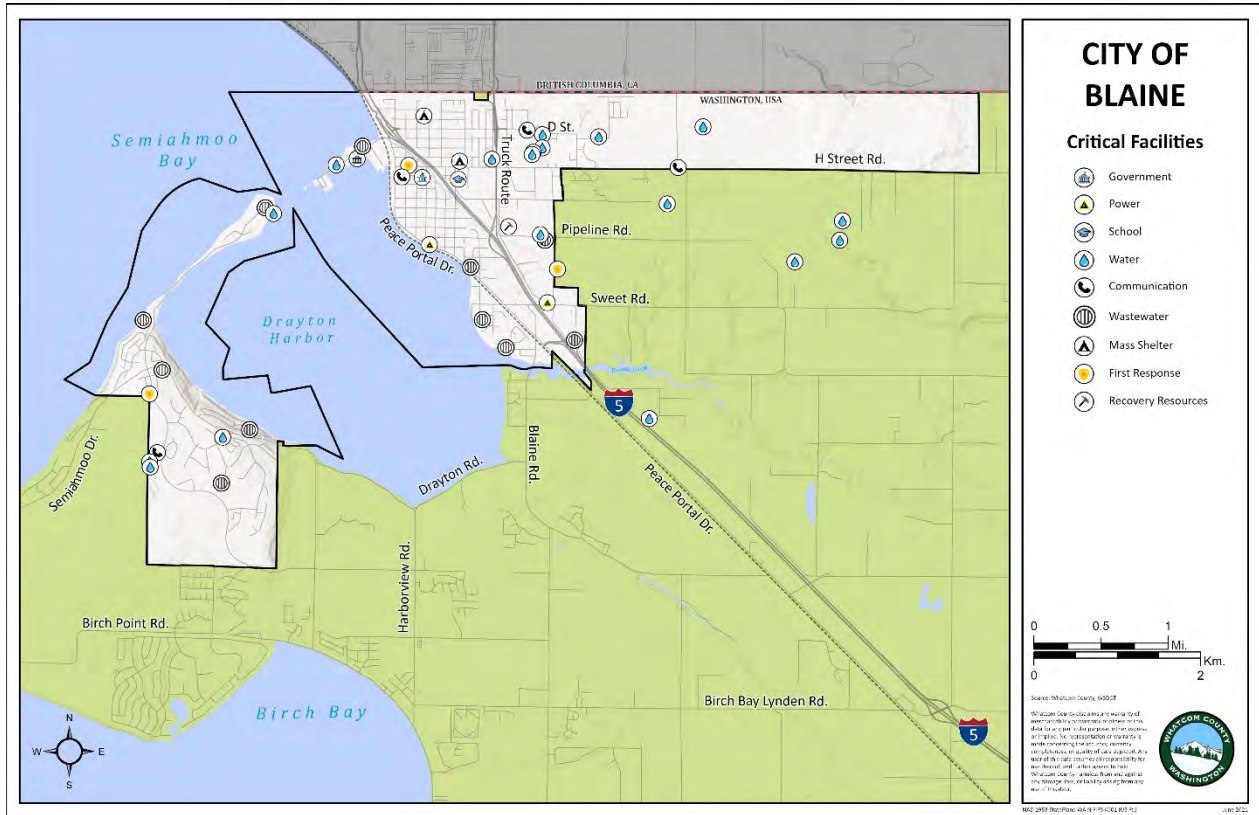
Facility Name	Facility Type	Significance	Location	Assessed Dollar Value	Notes
AT&T (US/Canada fiber optic vault)	LUS	2	1715 D Street		Communications
Blaine City Hall	EF	1	435 Martin		Government
Blaine Community Center	EF	1	763 G Street		EOC
Blaine Lighthouse Point Water Reclamation Facility	LUS	2	272 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 judications 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

Exhibit A



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		
Earthquake, Shaking Intensity						
<i>MMI V</i>	40.8%	66.2%	66.9%	61.4%	\$90	
<i>MMI VI</i>	24.8%	33.1%	32.8%	38.6%	\$5	
<i>MMI VII</i>	-	-	-	-	-	
<i>MMI VIII - IX</i>	-	-	-	-	-	
TOTAL	65.6%	99.3%	99.7	100%	\$95	
Liquefaction						
<i>Very Low to Low</i>	55.3%	81.5%	79.6%	68.2%	\$48	
<i>Low to Moderate</i>	7.2%	15.9%	15.4%	18.2%	\$3	
<i>Moderate</i>	-	-	-	-	-	
<i>Moderate to High</i>	1.9%	1.5%	4.5%	6.8%	-	
<i>High</i>	0.7%	0.6%	0.3%	6.8%	\$44	
TOTAL	65.1%	99.5%	99.8%	100%	\$95	
Landslide						
<i>Landslide Low</i>	-	0.2%	-	-	-	
<i>Landslide Moderate</i>	-	-	-	-	-	
<i>Landslide High</i>	0.06%	-	-	-	-	
<i>Fan Low</i>	0.01%	0.01%	-	-	-	
<i>Fan Moderate</i>	-	-	-	-	-	

Geological Hazards

Exhibit A



N e Hydrological Hazards	<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	
	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%	-	-		
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	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>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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Exhibit A



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
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Exhibit A



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	
	<p>EQ-2 Semiahmoo Spit Commercial and Marina Areas</p> <p>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.</p>	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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Exhibit A



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						
	<p>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.</p>					and loans	
	<p>EQ-3 Map and Assess Community Vulnerability to Seismic Hazards</p> <p>Use of GIS mapping can help inform city</p>	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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Exhibit A



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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Exhibit A



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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Exhibit A



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
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Exhibit A



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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Exhibit A



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)	<i>WW-a. Protect Power Lines</i>	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)	<p>Marine Drive Commercial and Marina Areas Emergency Plan</p> <p>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</p>	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.						
	<p>Earthquake Early Warning System</p> <p>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.</p>	1,2	City of Blaine		L	Local sources, and state and federal grants and loans	
	<p>Retrofit Residential Buildings</p> <p>For severe wind and other hazards.</p>	1	City of Blaine Community Development Services		L	Federal	\$4,000,000
	<p>Retrofit Public Buildings and Critical Facilities</p> <p>For severe wind and other hazards.</p>	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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Exhibit A



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):					Notes on yearly progress
	2021	2022	2023	2024	2025	
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/LEEVE 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					Notes on yearly progress
	2021	2022	2023	2024	2025	
<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>						
<i>EQ-1 Police Station</i>						
<i>EQ-2 Semiahmoo Spit Commercial and Marina Areas</i>						
<i>EQ-3 Map and Assess Community Vulnerability to Seismic Hazards</i>						
<i>Add New Action Items if Applicable</i>						
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						
<i>Add New Action Items if Applicable</i>						
LANDSLIDES/EROSION						
<i>ER-a. Map and Assess Vulnerability to Erosion</i>						
<i>ER-b. Manage Development in Erosion Hazard Areas</i>						
<i>ER-c. Promote or Require Site and Building Design Standards to Minimize Erosion Risk</i>						
ER-1 Stabilize Erosion Hazard Areas						
ER-2 Increase Awareness of Erosion Hazards						
<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>TSU-a. Earthquake/Tsunami Warning System</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	
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					Notes on yearly progress
	2021	2022	2023	2024	2025	
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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