



CITY OF SUMAS

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Approving Authority	Chamber President Ron Fadden & City Chamber Members 433 Cherry Street / P.O. Box 9 Sumas, WA 98295 (360) 988-5711

Planning Process

The City of Sumas process of reviewing, updating and adopting the 2015 update of the Whatcom County Natural Hazard Mitigation Plan (NHMP or Plan) included review by multiple City departments and formal adoption by the City Council. Review of the prior plan began in early 2014. The City Planner reviewed the previous plan and met with the Mayor, Public Works Director and Chief of Police to identify details that needed to be updated. In October 2014 the City Planner attended a coordination meeting hosted by the County Division of Emergency Management (DEM). Initial guidance was received from DEM and the County's consultant regarding the update schedule and the main areas to focus on as part of the update. During November and December of 2014 the City Planner prepared draft revisions to the NHMP and met with the Public Works Director and the Chief of Police to review the draft revisions and receive additional input.

The final draft revisions to the NHMP addressing the city of Sumas, incorporating input received from the Public Works Director, Mayor and Chief of Police, were submitted to DEM in late December 2014. On July 27, 2015, the Sumas City Council held a duly advertised public hearing to review the draft NHMP dated June 1, 2015 and formally adopted the Plan on July 27, 2015 through Resolution No. 753.

Key Contributor List

Rollin Harper, City Planner
Chief of Police Chris Haugen
Rod Fadden, Public Works Director
Mayor Bob Bromley

Meeting Dates and Attendees

February 12, 2014 – Harper, Bromley, Fadden and Haugen
November 10, 2014 – Harper, Fadden and Haugen
December 2, 2014 – Harper and Fadden
December 9, 2014 – Harper and Haugen



The information contained in the Natural Hazard Mitigation Plan update regarding hazards, risks, vulnerability and potential mitigation is based on the best available science and technology currently available. This information and related data on natural hazards potentially impacting the city of Sumas will be used as a tool when the City updates other plans and programs, such as the following:

- Comprehensive plan required by the Growth Management Act (GMA);
- Development regulations required by the GMA;
- Critical areas ordinance;
- Capital improvement program;
- Capital facilities planning; and
- Water Resource Inventory Area planning.

As additional information becomes available from other planning sources that can enhance this Plan, that information will be incorporated through the periodic update process.

Presence of Hazards

Hazard	Present? (yes if checked)
Earthquake	√
Flooding	√
Geologic Hazards	√
Severe Storm	√
Tsunami	
Volcano	√
Wild Land Fire	

Hazard Descriptions

Earthquake Subject to seismic activity. Significant risk due to Sumas’ highest concentration of older homes in the county.

Flooding During a flooding event, the entire City floods from the Nooksack River, from west to east, in a northeasterly flow.

Geologic Hazards Seismically-sensitive soils.

Severe Storm All areas within the city limits are subject to impacts from high wind, rain, and snow events.

Volcano The City is at risk of a Mount Baker lahar.



City of Sumas Critical Facility List

Facility Name	Facility Type	Location
American Legion Hall	Emergency Services	134 Harrison Avenue
Elementary School - Dist. 506	Evacuation Center	1024 Lawson Street
High School - District 506	Evacuation Center	Refer to WC GIS Data Layer
May Road Wellfield	Utility: Water	9700 May Road
Middle School - District 506	Evacuation Center	Refer to WC GIS Data Layer
Sumas City Hall	Law Enforcement	433 Cherry Street
Sumas City Reservoir	Utility: Water	205 Washington Street
Sumas City Wellfield	Utility: Water	3670 Kneuman Road
Puget Sound Energy	Utility: Power	601-B W. Front Street
Sumas Fire Station	Fire station	143 Columbia Street
Sumas Police Dept.	Law Enforcement	433 Cherry
Sumas Senior Center	Evacuation Center	451 Second Street
Sumas Water & Lights	Utility: Water	433 Cherry
Sumas – CBP	Law Enforcement	109 Cherry Street
Williams Gas Pipeline	Fuel	4378 Jones Road
U.S. Border Patrol	Law Enforcement	9648 Garrison Road

Geography

Sumas Population	1,468 (2014 estimate)
Total Area	1.84 mi (within city limits)

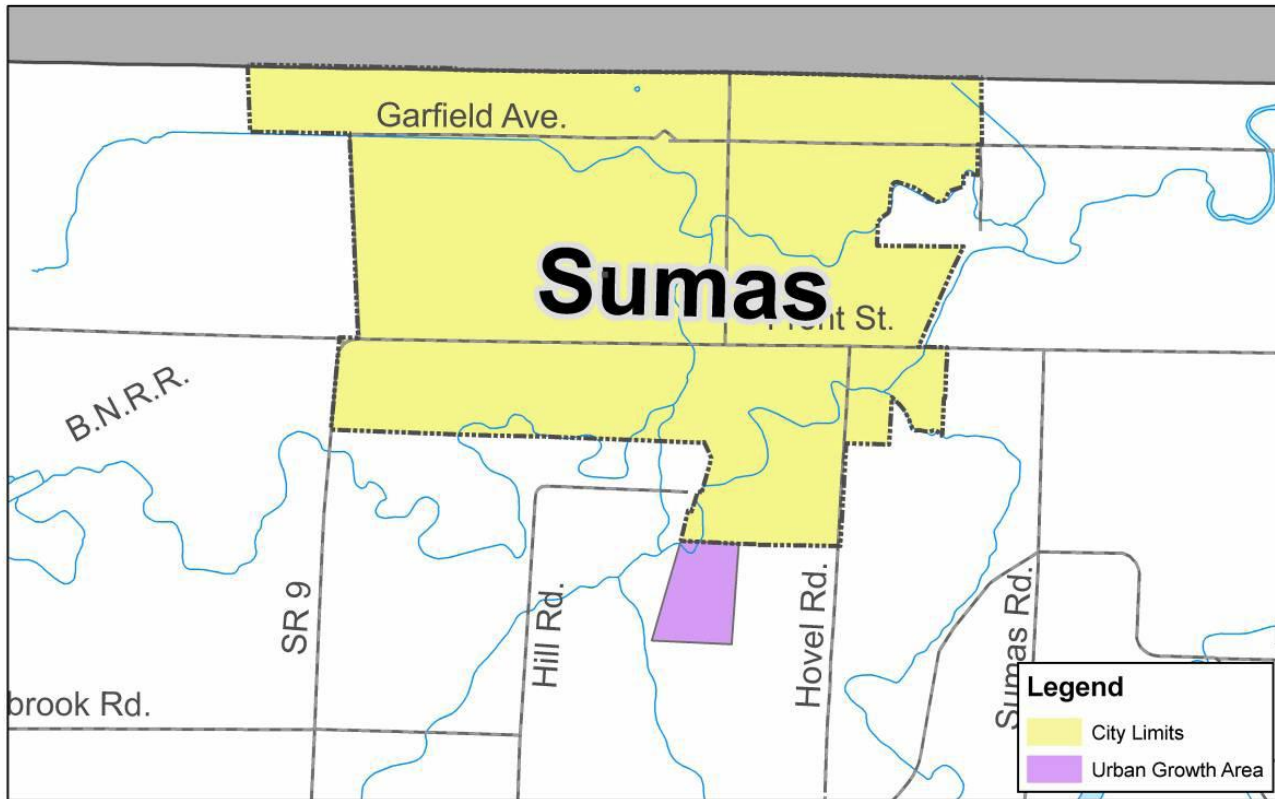
Areas Impacted, Per Hazard Growth Trends

Hazard	# Structures Impacted	Area Affected (mi ²)	Percent of Total Area
Earthquake	764	1.84 mi	100%
Flooding	165	0.976 mi	69.7%
Geologic Hazards	698	1.279 mi	91.4%
Severe Storm	764	1.84 mi	100%
Volcano	554	0.993 mi	71.0%



Growth Trends

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





Critical Facility Rankings for the City of Sumas

Facility Name	Facility Type	FL	EQ	GH	SS	TSUN	VOL	WF	Total Hazards	Rank Assessment
May Road Wellfield	Utility: Water		√		√				2	1
Sumas City Wellfield	Utility: Water		√	√	√				3	1
Sumas City Reservoir	Utility: Water		√		√				2	2
Sumas Water & Lights	Utility: Water	√	√	√	√		√		5	2
Sumas City Hall	Law Enforcement	√	√	√	√		√		5	3
Sumas Fire Station	Fire Station	√	√	√	√		√		5	3
Sumas Police Department	Law Enforcement		√	√	√		√		4	3
Sumas – CBP	Law Enforcement		√	√	√				3	3
Williams Gas Pipeline	Fuel	√	√	√	√		√		5	4
American Legion Hall	Emergency Services	√	√	√	√				4	5
Elementary School - District 506	Evacuation Center	√	√	√	√		√		5	5
High School - District 506	Evacuation Center		√	√	√		√		4	5
Middle School - District 506	Evacuation Center		√	√	√		√		4	5
Sumas Senior Center	Evacuation Center	√	√	√	√		√		5	5
Puget Sound Energy	Utility: Power	√	√	√	√		√		5	6
U.S. Border Patrol	Law Enforcement	√	√		√		√		4	6

Notes: FL = Flooding; EQ = Earthquake; GH = Geologic Hazard; SS = Severe Storm; TSUN = Tsunami; VOL = Volcano; WF = Wildland Fire (The methodology used for ranking the critical facilities is described in the “Jurisdiction Overview” section)



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CITY OF SUMAS’ HAZARD MITIGATION STRATEGIES AND PROJECTS 2010-2014

General Hazard Mitigation Strategies

These provide guidance on the overall hazard mitigation goals for future planning within the City of Sumas.

Provide an increased level of safety for residents of Sumas.

- Ensure adequate protection for new structures by compliance with the National Flood Insurance Program (NFIP) and with the earthquake standards established in the International Building Code (IBC).
- Pursue programs and projects that lessen hazards to existing structures.
- Ensure that hazard warning systems are effective.

Ensure provision of essential public services and utilities throughout a natural disaster.

- Replace or rehabilitate facilities that are prone to failure in a disaster.

Lessen the potential frequency and severity of a natural disaster.

- Work with other jurisdictions to control the amount of Nooksack River overflow flooding occurring in Everson, WA.

Potential Hazard Mitigation Projects

These mitigation projects provide guidance on suggesting specific activities that agencies, organizations, and residents in the City of Sumas can undertake to reduce risk and prevent loss from the at-risk hazards. Each action item is followed by the suggested responsible entity and timeline, which can be used by local decision makers in pursuing strategies for implementation.

Following the potential projects is a description of the City’s prioritization for implementation.

Earthquake

Wellfield Backup Power - The Sumas City Wellfield is served by a diesel generator that is enclosed within a shipping container that has no permanent foundation. Diesel fuel is stored in a free-standing double-wall tank located next to the container. This arrangement is prone to failure in the event of an earthquake. A permanent enclosure should be built for the generator and the fuel tank, with adequate footings and anchoring to allow the equipment to withstand an earthquake.

Responsible Entity:	Sumas Public Works Department
Funding Source:	Local funds
Timeline:	3 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective



Flooding

City Hall/Police Station -This building is subject to flooding and is also prone to major damage in an earthquake, given that the building pre-dates modern building codes. A new facility should be constructed outside the floodplain.

Responsible Entity:	Sumas Public Works Department
Funding Source:	State or federal grants
Timeline:	Within 10 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective

Responsible entity: City of Sumas Funding source: State or federal grants Timeline: Within 10 years

Fire Station -This building is subject to flooding. A new facility should be constructed outside the floodplain.

Responsible Entity:	Whatcom County Fire District # 14
Funding Source:	State or federal grants
Timeline:	Within 10 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective

Flood Corridor Residential Buy-Out -Sumas’ 1997 Floodplain Management Plan identified two major corridors of flood flow through the residential area. It proposed that the existing homes within those corridors be purchased and demolished, and that the corridors then be lowered in grade, establishing flood conveyance channels that would reduce the amount of flooding experienced elsewhere in town. The corridor buy-out program should be implemented.

Responsible Entity:	City of Sumas
Funding Source:	State or federal grants
Timeline:	Within 30 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective

Cherry Street Bridge Replacement -In a large flood, the Cherry Street bridge over Johnson Creek is a major impediment to flow. Water is forced out of the Johnson Creek channel, leading to worse inundation in the commercial and residential areas to the north and northeast. The bridge should be replaced at a higher elevation and with less supporting pilings.

Responsible Entity:	WA State Department of Transportation
Funding Source:	State or federal grants
Timeline:	Within 10 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective

Sumas Avenue Replacement - In a large flood, Sumas Avenue is a major impediment to water flow. Sumas Avenue runs north/south and flood waters need to cross it to escape from the City of Sumas. Sumas Avenue currently can act as a barrier to water flow as it sits higher than the surrounding property. The street should be torn out and lowered so as to allow water to flow more freely.



Responsible Entity:	WA State Department of Transportation
Funding Source:	State or federal grants
Timeline:	Within 10 years
2010-2014 Status	Deferred—Funding Availability; Not as Effective

Volcano

Lahar Early Warning System – The US Geological Survey has designed a number of systems that automatically detect lahars as they descend neighboring valleys. These systems automatically trigger various types of early warning systems, such as sirens or telephone-based warning systems.

Responsible Entity:	Lynden Fire Department
Funding Source:	Local sources, and state and federal grants
Timeline:	Long term (greater than 3 years after funding is secured)
2010-2014 Status	Completed and Deferred—Funding Availability (<i>reverse 911 telephone-based warning system has been secured, but there are no triggered warning systems or sirens installed around Mt. Baker.</i>)



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CITY OF SUMAS’ HAZARD MITIGATION STRATEGIES AND PROJECTS 2015-2020

These mitigation projects provide guidance on suggesting specific activities that agencies, organizations, and residents in the City of Sumas can undertake to reduce risk and prevent loss from the at-risk hazards. Each action item is followed by the suggested responsible entity and timeline, which can be used by local decision makers in pursuing strategies for implementation. Following the potential projects is a description of the City’s prioritization for implementation.

Mitigation Measures And Action Items

1	Lead Agency	May be more than one lead agency indicating shared responsibility and coordination
2	Priority:	H (High); M (Medium); L (Low)
3	Timeline:	Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing
4	Funding Source:	Local; State; FEMA; Private; Other
5	Estimated Cost:	Actual; Estimated

Project Prioritization

Any monies that would come to the City of Sumas would first be spent on studies to determine the best possible application. The City is unsure of the direction they need to go with regards to Hazard Mitigation funds, but will use the following three criteria to prioritize mitigation projects. The criteria are listed in order of importance:

1. *Health and safety of persons* – Project that provide a direct benefit to the health and safety of the greatest number of persons have priority over projects that provide indirect benefit to persons, or that primarily protect property. As an example, the project involving backup power at the wellfield results in a region-wide benefit of adequate safe water supply in the event of an earthquake. Such a benefit is greater than that associated with replacement of the Cherry Street bridge, which would reduce property damage and would indirectly result in reduced hazard to a subset of city residents within a certain affected area.
2. *Cost* – A project must be affordable and must return reasonable benefits in comparison to the cost.
3. *Severity and longevity of avoided hazard* – Consideration is given to the nature of the avoided consequence and to the span of time over which the consequence is avoided. As an example, the replacement of the police station would result in the ability to coordinate disaster response in all future flood events, without having to relocate personnel and equipment to an alternate location prior to or during an event. In contrast, it is simple to relocate the fire truck and aid car to an alternate location. The consequence associated with flooding of the fire station is not as serious as the consequence of flooding the police station.



Cost Evaluation Projects for Jurisdictions

Priority	Facility	Jurisdiction	Nature	Brief Description



MITIGATION MEASURES AND ACTION ITEMS 2015 – 2020

CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
GENERAL: ALL HAZARDS Education and Awareness Actions	These are actions that inform and educate citizens, elected officials, and property owners about hazards and ways to mitigate them.					
	Emergency preparedness education programs for schools.	Whatcom County Division of Emergency Management (DEM)	H	Annual	Annual budget / Member dues	Included in annual budget
	Drills, exercises in homes, workplaces, classrooms, etc.	DEM	H	Annual	Annual budget / Member dues	Included in annual budget
	Hazard awareness weeks.	DEM	H	Annual	Annual budget / Member dues	Included in annual budget
	Preparedness handbooks, brochures.	DEM	H	Annual	Annual budget / Member dues	Included in annual budget
	Newsletters and utility bill inserts.	City Public Works Dept.	H	Quarterly	City General Fund	Included in annual budget

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
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.					
Droughts/Heat Waves	D-1 Assess Vulnerability to Drought Risk	City Planning Dept.	L	Once every few years	City Water Fund	Included in annual budget
	D-2 Monitor Drought Conditions	City Public Works Dept.	M	Ongoing	City Water Fund	Included in annual budget
	D-3 Monitor Water Supply	City Public Works Dept.	H	Ongoing	City Water Fund	Included in annual budget
	D-4 Plan for Drought	City Planning Dept.	L	Once every five years	City Water Fund	Included in annual budget
	D-5 Require Water Conservation During Drought Conditions	City Public Works Dept.	H	Ongoing	City Water Fund	Included in annual budget
	D-9 Educate Residents on Water Saving Techniques	City Administration	M	Annual	City Water Fund	Included in annual budget
Earthquakes	EQ-1 Adopt and Enforce Building Codes	City Building Dept.	H	Ongoing	City General	Included in

Priority:
H (High); M (Medium); L (Low)

Timeline:
Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing

Funding Source:
Local; State; FEMA; Private; Other

Estimated Cost:
Actual; Estimated



CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
					Fund	annual budget
	EQ-2 Incorporate Earthquake Mitigation into Local Planning	City Planning Dept.	L	Every five years	City General Fund	Included in annual budget
	EQ-3 Map and Assess Community Vulnerability to Seismic Hazards	City Planning Dept.	L	Every five years	City General Fund	Included in annual budget
	EQ-4 Conduct Inspections of Building Safety	City Building Dept.	H	Ongoing	City General Fund	Included in annual budget
	EQ-5 Protect Critical Facilities and Infrastructure	City Building, Planning and Public Works Depts.	H	Ongoing	City General Fund	Included in annual budget
Flooding	F-1 Incorporate Flood Mitigation in Local Planning	City Planning Dept.	H	Annual	City General fund	Included in annual budget
	F-2 Form Partnerships to Support Floodplain Management	City Planning and Public Works Depts.	H	Ongoing	City General fund	Included in annual budget
	F-3 Limit or Restrict Development in Floodplain Areas	City Building and Planning Depts.	H	Ongoing	City General fund	Included in annual budget
Priority: H (High); M (Medium); L (Low)		Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing		Funding Source: Local; State; FEMA; Private; Other		Estimated Cost: Actual; Estimated



CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
	F-4 Adopt and Enforce Building Codes and Development Standards	City Building and Public Works Depts.	H	Ongoing	City General fund	Included in annual budget
	F-5 Improve Stormwater Management Planning	City Planning Dept.	M	Annual	City General fund	Included in annual budget
	F-7 Improve Flood Risk Assessment	City Public Works Dept.	M	Annual	City General fund	Included in annual budget
	F-8 Join or Improve Compliance with NFIP	City Building and Planning Depts.	H	Ongoing	City General fund	Included in annual budget
	F-9 Manage the Floodplain Beyond Minimum Requirements	City Planning Dept.	M	Ongoing	City General fund	Included in annual budget
	F-11 Establish Local Funding Mechanisms for Flood Mitigation	County Flood Control Zone District	H	Annual	County Flood Fund	Included in annual budget
	F-13 Improve Stormwater Drainage System Capacity	City Public Works Dept	H	Annual	City General fund	Included in annual budget
	F-14 Conduct Regular Maintenance for Drainage Systems and Flood Control	City Public Works Dept	H	Ongoing	City General fund	Included in annual

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
	Structures					budget
	F-21 Preserve Floodplains as Open Space	City Planning Dept.	M	Biannual	City General fund	Included in annual budget
Land Subsidence	SU-1 Map and Assess Vulnerability to Subsidence	City Planning Dept.	L	Every five years	City General fund	Included in annual budget
	SU-2 Manage Development in High-Risk Areas	City Building Dept.	H	Ongoing	City General fund	Included in annual budget
Winter Storms/ Freezes (Severe Winter Weather)	WW-1 Adopt and Enforce Building Codes	City Building Dept.	H	Ongoing	City General Fund	Included in annual budget
	WW-2 Protect Buildings and Infrastructure	City Public Works Dept	H	Ongoing	City General, Water and Sewer Funds	Included in annual budget
	WW-3 Protect Power Lines	City Public Works Dept	M	Ongoing	City General Fund	Included in annual budget
	WW-4 Reduce Impacts to Roadways	City Public Works Dept	M	Ongoing	City Street Fund	Included in annual budget

Priority:
H (High); M (Medium); L (Low)

Timeline:
Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing

Funding Source:
Local; State; FEMA; Private; Other

Estimated Cost:
Actual; Estimated



CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
Severe Wind	SW-1 Adopt and Enforce Building Codes	City Building Dept.	H	Ongoing	City General Fund	Included in annual budget
	SW-4 Protect Power Lines and Infrastructure	City Public Works Dept.	H	Ongoing	City General Fund	Included in annual budget
	SW-6 Retrofit Public Buildings and Critical Facilities	City Public Works Dept.	M	Variable	City General Fund	Project-specific
Multiple Hazards	MU-1 Assess Community Risk	City Planning and Public Works Depts.	L	Annual	City General Fund	Included in annual budget
	MU-2 Map Community Risk	City Planning Dept.	L	Every five years	City General Fund	Included in annual budget
	MU-3 Prevent Development in Hazard Areas	City Building and Planning Depts.	H	Ongoing	City General Fund	Included in annual budget
	MU-4 Adopt Development Regulations in Hazard Areas	City Building and Planning Depts.	H	Annual	City General Fund	Included in annual budget
	MU-5 Limit Density in Hazard Areas	City Planning Dept.	M	Ongoing	City General Fund	Included in annual budget

Priority:
H (High); M (Medium); L (Low)

Timeline:
Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing

Funding Source:
Local; State; FEMA; Private; Other

Estimated Cost:
Actual; Estimated



CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
	MU-6 Integrate Mitigation into Local Planning	City Planning Dept.	M	Ongoing	City General Fund	Included in annual budget
	MU-7 Strengthen Land Use Regulations	City Planning Dept.	L	Annual	City General Fund	Included in annual budget
	MU-8 Adopt and Enforce Building Codes	City Building Dept.	H	Ongoing	City General Fund	Included in annual budget
	MU-11 Monitor Mitigation Plan Implementation	City Planning and Public Works Depts.	M	Ongoing	City General Fund	Included in annual budget
	MU-12 Protect Structures	City Building and Public Works Depts.	H	Ongoing	City General Fund	Included in annual budget
	MU-13 Protect Infrastructure and Critical Facilities	City Public Works Dept.	H	Ongoing	City General, Water and Sewer Funds	Included in annual budget
	MU-14 Increase Hazard Education and Risk Awareness	City Public Works Dept.	H	Annual	City General Fund	Included in annual budget
Advanced Mitigation	Well field Backup Power					

Priority: H (High); M (Medium); L (Low)	Timeline: Short-Range (less than 2 years); Mid-Range (2-5 years); Long-Range (more than 5 years); Ongoing	Funding Source: Local; State; FEMA; Private; Other	Estimated Cost: Actual; Estimated
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CITY OF SUMAS MITIGATION MEASURES AND ACTION ITEMS 2015-2020						
MITIGATION MEASURES		Lead Responsibility for Carrying out Measure	Priority	Timeline	Funding Source	Estimated Cost
Hazard	Action Items					
Projects (Dream List)	Natural Hazard Early Warning Systems					

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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HAZARD SPECIFIC ACTION ITEMS 2015-2020 ANNUAL REVIEW AND PROGRESS

Progress monitoring means tracking the implementation of the hazard specific action items 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. Appendix G includes an example worksheet for reporting progress on a mitigation action.

Annual review and progress reporting includes the following:

Step One: Identify mitigation actions that your planning team has identified for the annual review. The planning team has the option to address ALL action items, or only those that should be acted on during each review cycle.

Step Two: Use the table below to track annual progress. For each action item selected for annual review insert the appropriate letter that indicates the status of that action item.

Step Three: Complete a progress report form as illustrated in Appendix G for each mitigation action item selected for annual review

Step Four: Submit the completed form(s) to the Whatcom County DEM.

City of Sumas Hazard-Specific Action Items 2015-2020 – 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
GENERAL: ALL HAZARDS	
Emergency preparedness education programs for schools.	
Drills, exercises in homes, workplaces, classrooms, etc.	
Hazard awareness weeks.	
Preparedness handbooks, brochures.	
Newsletters and utility bill inserts.	
Add New Action Items if Applicable	
DROUGHTS/HEAT WAVES	
D-1 Assess Vulnerability to Drought Risk	
D-2 Monitor Drought Conditions	
D-3 Monitor Water Supply	
D-4 Plan for Drought	
D-5 Require Water Conservation During Drought Conditions	
D-9 Educate Residents on Water Saving Techniques	
Add New Action Items if Applicable	



City of Sumas Hazard-Specific Action Items 2015-2020 – 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
EARTHQUAKES	
EQ-1 Adopt and Enforce Building Codes	
EQ-2 Incorporate Earthquake Mitigation into Local Planning	
EQ-3 Map and Assess Community Vulnerability to Seismic Hazards	
EQ-4 Conduct Inspections of Building Safety	
EQ-5 Protect Critical Facilities and Infrastructure	
<i>Add New Action Items if Applicable</i>	
FLOODING	
F-1 Incorporate Flood Mitigation in Local Planning	
F-2 Form Partnerships to Support Floodplain Management	
F-3 Limit or Restrict Development in Floodplain Areas	
F-4 Adopt and Enforce Building Codes and Development Standards	
F-5 Improve Stormwater Management Planning	
F-7 Improve Flood Risk Assessment	
F-8 Join or Improve Compliance with NFIP	
F-9 Manage the Floodplain Beyond Minimum Requirements	
F-11 Establish Local Funding Mechanisms for Flood Mitigation	
F-13 Improve Stormwater Drainage System Capacity	
F-14 Conduct Regular Maintenance for Drainage Systems and Flood Control Structures	
F-21 Preserve Floodplains as Open Space	
<i>Add New Action Items if Applicable</i>	
LAND SUBSIDENCE	
SU-1 Map and Assess Vulnerability to Subsidence	
SU-2 Manage Development in High-Risk Areas	
<i>Add New Action Items if Applicable</i>	
WINTER STORMS/ FREEZES	
WW-1 Adopt and Enforce Building Codes	
WW-2 Protect Buildings and Infrastructure	
WW-3 Protect Power Lines	
WW-4 Reduce Impacts to Roadways	
<i>Add New Action Items if Applicable</i>	



City of Sumas Hazard-Specific Action Items 2015-2020 – 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
SEVERE WIND	
SW-1 Adopt and Enforce Building Codes	
SW-4 Protect Power Lines and Infrastructure	
SW-6 Retrofit Public Buildings and Critical Facilities	
<i>Add New Action Items if Applicable</i>	
MULTIPLE HAZARDS	
MU-1 Assess Community Risk	
MU-2 Map Community Risk	
MU-3 Prevent Development in Hazard Areas	
MU-4 Adopt Development Regulations in Hazard Areas	
MU-5 Limit Density in Hazard Areas	
MU-6 Integrate Mitigation into Local Planning	
MU-7 Strengthen Land Use Regulations	
MU-8 Adopt and Enforce Building Codes	
MU-11 Monitor Mitigation Plan Implementation	
MU-12 Protect Structures	
MU-13 Protect Infrastructure and Critical Facilities	
MU-14 Increase Hazard Education and Risk Awareness	
<i>Add New Action Items if Applicable</i>	



Natural Hazard Maps

The following figures depict the natural hazards present within the jurisdiction and show the approximate location of each critical facility relative to each hazard. It is assumed that the figures used in this version of the Plan contain the most recent hazard information and any updates will be reflected in the figures provided by the participating jurisdiction or in the following text:

- Since the 2011 Plan, the City of Sumas has revised the list of critical facilities. The revised list of facilities can be found in the table at the beginning of this section and has not been updated in the following figures.

