

Woodway

The Town of Woodway is in the southwest corner of Snohomish County and overlooks Puget Sound. It consists of 648 acres of land, excluding tidelands. The Burlington Northern Railroad right-of-way passes along the shore of Woodway. It divides the shoreline into two sections with the shore side portion being relatively flat, and an upland portion that gradually turns to a high bank with views of Puget Sound.¹

The tidelands and associated shoreline are regulated by the 1974 Snohomish County Shoreline Master Program and are designed at Conservancy. Development activities and opportunities within the Conservancy Shoreline Environment are limited by this designation.²

It should be noted that the Burlington Northern railroad runs through Woodway along the Puget Sound shoreline.

Critical facilities for the Town of Woodway are identified in Annex J.

Hazard Identification

Based on past experience, the Town of Woodway rates its risk of natural hazards as follows:

HAZARD	RATING
Drought	06
Earthquake	56
Flood	
100-year	N/A
Urban	24
Landslide	48
Severe Storm	44
Tsunami & Seiche	06
Volcano	22
Wildland Urban Interface Fire	44

Drought

Rating: 6

Drought is not considered to be a high-risk hazard for the Town of Woodway. The Town's potable water is supplied by Olympic View Water District and is relatively stable for short-term (one season) droughts. Citizens may be asked to take conservation measures and limit lawn watering, but the Town will still receive adequate potable water for its needs.

Earthquake

Rating: 56

The Town of Woodway is located in Seismic Zone 3, between several fault lines, and an earthquake is therefore considered to be a significant risk for the Town.

As discussed in this document's HIVA, earthquakes occur in Washington State on an almost daily basis. While most quakes are minor, seismologists tell us that we can expect a 7.0 magnitude deep or intraplate earthquake about every 70 years and an 8.0 or greater subduction quake every 150 to 1,100 years.

Based on this information, when a major earthquake occurs in the region, the Town can expect significant damage, injuries, and possibly deaths. This is due in part to Woodway's position on the Puget Sound coastline and the steep slopes that accompany this location. The potential for landslide and soil displacement is significant in connection with an earthquake.

During the 2001 Nisqually Earthquake, Woodway shook but did not sustain any damage to Town structures or to local residences or businesses. This was due to a combination of factors including the distance away from the epicenter, the direction the shockwave traveled, and relatively short length of time the ground actually shook. A different combination of factors could lead to very different levels of damage.

Should a major earthquake occur, Woodway could potentially incur as much as \$230,374,057 worth of damage, the value of the structures in the Town.

Flood

Rating: 24

The Town of Woodway has four ground water drainage basins: Shell Creek slopes northerly towards the City of Edmonds; Deer Creek East Drainage Basin slopes easterly towards the Olympic View Water and Sewer District's water filtration facilities; Deer Creek West Drainage Basin which slopes easterly towards Puget Sound; and the Richmond Beach Drainage Basin which slopes to the south and west towards the Richmond Beach Neighborhood, in the City of Shoreline within King County. There are three or four smaller creeks that accumulate ground water and storm runoff which discharge into Puget Sound. There is an abundance of natural springs and small surface water drainages. The Town also owns a 2.4 acre wetland, located in the southwestern portion of the Town, adjacent to 241st Street SW.³

With this much water existing within a little more than one square mile, and with the Town located on the shores of Puget Sound, Woodway has the

possibility of experiencing floods from three separate types of events: 100-year flooding, urban flooding, and shoreline flooding. The Town has been proactive in ensuring that damage is unlikely to occur from any flooding events.

However, Woodway is not a member of the National Flood Insurance Program (NFIP) due to the fact that there are no flood areas mapped in the Town.

100-Year

100-year flood is not considered to be a high-risk for the Town of Woodway.

Woodway adopted zoning codes and regulations designed to protect wetlands and limit building within critical or sensitive areas.

Urban

Urban flooding is a regular occurrence in the Town of Woodway. This is due to excessive rainfall or snowmelt which overwhelms the stormwater system, wetlands, lake, and streams. In general, urban flooding is intensified by the increasing amount of impervious surface as surrounding jurisdictions and areas upstream develop.

One specific area of concern is flooding caused when the two 6-foot culverts running under the railroad tracks at Deer Creek become blocked. This occurred in 1997 during winter storms that resulted in multiple landslides. As a result of the culvert blockage, Deer Creek was diverted to the north by about 250 feet. Four new streams were created, each approximately 2-feet wide, and one foot deep.

Town officials were concerned that the misplaced stream flow would further erode banks and cause additional landslides.

Shoreline

Shoreline properties may experience flooding as part of the 100-year or urban flooding events. In addition, storm events are often accompanied by significant wave action, and this can intensify the flooding experienced along the Woodway shoreline.

The Town was proactive in responding to the threat of flood and banned any building on the tidelands or in the immediate vicinity. This is the area that is most likely to experience regular flooding.

Landslide

Rating: 48

Woodway's high banks and bluffs have been prone to land and debris slides in the past, and experience has shown that if soil has been previously displaced, it is more likely to slide again.

This is a significant hazard in Woodway due to the number of houses built on top of the bluffs as well as the railroad tracks which run below the bluffs. Previous landslides have covered the railroad tracks in Woodway as well as Edmonds and have required soil removal, slope stabilization, and repairs on the tracks themselves.

In January 1997, two major landslide landslides occurred in Woodway. While there were no deaths or injuries suffered as a result of this event, a Burlington Northern train was caught in the slide, and five railcars were pushed into Possession Sound. Two sections of railway, approximately 200 feet each, were covered with mud, rocks, and trees.

Photograph 1: Woodway Landslide, January 15, 1997.



Source: Washington State Department of Ecology.

At the top of the bluff, two homes were evacuated to ensure the safety of the occupants. In addition, emergency crews drained a 500-gallon heating oil tank and a swimming pool to prevent their weight from starting another slide.

As mentioned in the portion of the plan referring to Urban Flooding, Burlington Northern Santa Fe Railroad has two 6-foot culverts that run beneath the railroad tracks. During periods of severe storm, there is a possibility that these culverts will become blocked and divert the water into areas that could undercut bluffs and cause landslides. The Town is monitoring these culverts and working with the railroad to ensure that these areas are kept clear of debris.

Severe Storm

Rating: 44

The Town of Woodway is subjected to severe storms on a regular basis. Windstorms occur nearly every winter, and rainstorms are not unusual. While rarer, the Town has also experienced heavy snows and freezing rains.

Winds and snow or ice regularly cause tree branches to break and/or trees to fall. This may cause power outages or damage buildings. As mentioned in the discussion of floods (above), severe rain or snowstorms can also be associated with and compound the severity of flood events.

The Inaugural Day Storm in 1993 had winds of 66 mph. This storm interrupted power to the Town for more than three days. Branches and trees were downed and laid across streets, roads, and yards. Fences were blown over, and roofs were damaged from both branches and the wind itself.

In the winter of late 1996/early 1997, the Town and region experienced a significant snowfall following by drenching rain. This resulted in urban flooding and required crews to plow snow and manage storm water runoff.

Tsunami & Seiche

Rating: 6

Located on the Puget Sound coast, Woodway is potentially vulnerable to tsunami, though the likelihood of this occurring is very low on the rating scale.

A tsunami could damage streets, storm drain lines and residential housing in the northern extent of Richmond Beach Drive. The outfall of the Woodway Highlands storm drainage facility may also be impacted.

If the event destroyed the Burlington Northern Santa Fe Railroad line, it could cause erosion and destabilization at the toe of the marine bluff and lead to increased slide potential. The other potential impact would be environmental issues associated with damage to the Chevron Point Well facility.

Volcano

Rating: 22

Woodway is unlikely to suffer direct damage from a volcano eruption. In the event of an eruption, the Town may experience ash fall, and this can interfere with the operation of motor vehicles, require expensive clean-up efforts by the Town, and cause respiratory distress to the citizens. Woodway is highly unlikely to experience any lava flow, lahar activity, or any of the other risks associated with volcanoes.

A secondary effect of a volcano eruption is the influx of refugees into the area. This may be an issue to the Town of Woodway, and the region as a whole, as resources are overwhelmed by numbers of people that the infrastructure is not designed to handle. This includes everything from roads and highways, water and electric utilities, to the regional hospital.

Wildland-Urban Interface Fire

Rating: 44

Wildland-urban interface fire is a concern to the Town of Woodway due to the parks, wetlands, greenbelts, and the forested nature of the Town. The threat is in inverse proportion to the amount of rainfall in the region. When rain is scarce, the fire threat increases.

During the summer of 2003, new records were set for number of days without rain. As a result, the north King and south Snohomish Counties region experienced several fires next to the freeway (I-5) that were caused by careless smokers or sparks from machinery being operated next to dry grass. These fires were quickly contained and extinguished, but the close proximity of houses to these wildland areas, and the relative density of the housing units, makes wildland-urban interface fires a risk during periods of drought or excessive dryness.

Mitigation

Existing and Ongoing Mitigation Activities

All Hazards

Woodway is a member of the Emergency Services Coordinating Agency (ESCA). As such, Woodway receives emergency management planning and response services.

As part of the preparation and mitigation services, ESCA provides education in the form of Community Emergency Response Team (CERT) training. This training is provided to the citizens of the member Cities and Towns. The goal is to prepare people to be self-sufficient for as much as three days after a major disaster until safety personnel can get to them.

Codes

<i>The Town of Woodway</i>		
Name of Document	Purpose	Review Schedule*
Emergency Services – Disaster Coordination Woodway Municipal Code Title 2.32	Govern disaster preparedness and disaster response in the City.	Adopted 1987
State Environmental Policy Act – City Environmental Policy (SEPA) Woodway Municipal Code Title 16.04	Implement procedures and policies to improve and coordinate plans, functions, programs, and resources consistent with state and county policies for environmental protection.	Adopted 1984 Revised 2001
Shoreline Master Program Town of Woodway Ordinance # 01-408	Protect against adverse effects to the public health, the land and its vegetation and wildlife by managing shorelines.	Adopted 2001
Environmental Sensitive Areas Woodway Municipal Code Title 16.10:	Protect the public from damages from landslides, subsidence erosion and flooding.	Adopted 2000
Woodway Environmentally Sensitive Areas Map	Identifies sensitive areas in the Woodway Shoreline area.	
Stormwater Management and Drainage Design Woodway Municipal Code Title 11.02	Provide guidance on the estimation and control of stormwater runoff quantity and quality.	Adopted 1996, updated in 2007
International Building Code Woodway Municipal Code Title 12	Construct to the highest standards available.	Adopted 2007
International Fire Code Woodway Municipal Code Title 12.13	Construct to the highest standards available.	Adopted 2007
International Mechanical Code Woodway Municipal Code Title 12.08	Construct to the highest standards available.	Adopted 2007
Uniform Plumbing Code Woodway Municipal Code Title 12.09	Construct to the highest standards available.	Most recent version Adopted 1997

Name of Document	Purpose	Review Schedule*
National Electric Code Woodway Municipal Code Title 12.10	Construct to the highest standards available.	Most recent version Adopted 1996
Woodway Comprehensive Plan Woodway Municipal Code Title 15.02	Contains community's vision of the City's future, provides a statement of long-range goals and policies.	Adopted 1994, Updated in 2004.
Water Comprehensive Plan	Proves the City's water utility with long-term planning strategies for a twenty-year period.	Refer to Olympic View Water District 2003 plan
6-Year Capital Facilities Plan 20-Year Capital Facilities Plan 6-Year Capital Improvement Plan	Ongoing plans for the replacement and upgrade of infrastructure and critical facilities.	Adopted 1994 Updated annually

Drought

- Encourage water conservation.
 - The Town provides several hundred conservation kits to citizens free of charge each summer. These kits include low-volume shower heads, toilet tank “balloons,” hose nozzles, rain/watering gauges, and information booklets on how to conserve water.

Earthquake

- The Town of Woodway encourages voluntary seismic upgrade to properties.

Flood

- The Town of Woodway bans building in the tidelands.
- The Town of Woodway performs continual maintenance and improvements to its Storm Water System to prevent Urban Flooding.

Landslide

- To mitigate for landslide, the Town of Woodway relies on the adoption and enforcement of current building codes. In addition, the Town has established building requirements to mitigate for landslide hazards.
- The Town maintains the drainage system in the landslide area to minimize build-up of water that could erode the embankments.
- The Environmental Sensitive Areas ordinance provides guidelines for, and places restrictions on, development in hazard-prone areas.

Severe Storm

- The Storm Water Management and Drainage Design Ordinance and Capital Improvement Plan are maintained in accordance with State guidelines and are used both to develop policies and as a financial management tool. The Town uses these plans to maintain and enhance stormwater systems in order to minimize the effects of severe storms and the secondary effects of these storms: flooding and landslide.

Tsunami and Seiche

- None at this time.

Volcano

- None at this time.

Wildland-Urban Interface Fire

- Maintain right-of-way to minimize dry grasses and undergrowth.
- Ban the use of fireworks within the Town limits.

Mitigation Action Items

The Mitigation Plan identifies short- and long-term action items developed through data collection, research, and the public participation process. Mitigation Plan activities may be considered for funding through federal and state grant programs and when other funds are made available through local funding.

Action items address multi-hazard (MH) and hazard-specific issues. To help ensure activity implementation, each action item includes information on the timeline and coordinating organizations. Upon implementation, the coordinating organizations may look to partner organizations for resources and technical assistance.

To help ensure activity implementation, each action item includes several pieces of information in the description. These include:

- *Coordinating Organization*
The coordinating organization is that which is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring and evaluation. The coordinating organizations may be local or regional agencies. Organizations written in *italics* are not participating in this Plan but have an established relationship with this jurisdiction.
- *Timeline*
Action items include both long- and short-term activities. Each action item includes an estimate of the timeline for implementation. *Short-term* action items (ST) are activities that organizations may implement with existing resources and authorities within one to two years. *Long-term* action items (LT) may require new or additional resources or authorities, and may take between two and five years to implement.
- *Ideas for Implementation*
Each action item includes ideas for implementation. This may be individual steps for one project, or it may be several related projects that address the natural hazard.
- *Plan Goals Addressed*
The plan goals are identified to monitor and evaluate how well the Mitigation Plan is achieving its goals once implementation begins.

- *Benefit-to-Cost Review*

Due to limitations in staff time, and because project priorities may shift based on changes in funding options and local events, a generalized benefit-to-cost analysis is used. The steps associated with prioritizing the mitigation projects are as follows:

1. The jurisdiction rates the project cost as “high,” “medium,” or “low” in relation to budget and previous projects, and each rating is assigned a numerical value.
2. The project outcome is then rated as “low,” “medium,” or “high,” and each of these ratings is assigned a numerical value.
3. The two values are added together, and the total provides the cost-benefit and the priority.

Example:

If a project has a *medium approximate cost*, and is considered to be *highly effective*, the boxes would be marked as shown below.

<u>Approx Cost</u>	+	<u>Effectiveness</u>	=	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High		<input type="checkbox"/> 1 – Low		<input type="checkbox"/> 2 – Lowest
<input checked="" type="checkbox"/> 2 – Medium		<input type="checkbox"/> 2 – Medium		<input type="checkbox"/> 3
<input type="checkbox"/> 3 – Low		<input checked="" type="checkbox"/> 3 – High		<input type="checkbox"/> 4
				<input checked="" type="checkbox"/> 5
				<input type="checkbox"/> 6 – Highest

The priority ratings with the highest numbers are considered to be the highest priorities. As always, however, these are subject to financial realities and may not be carried out in the exact order indicated.

MULTI-HAZARD Mitigation Items (MH)

WW-01-MH-ST: Develop data for Geographical Information System (GIS) to identify and track naturally occurring hazards within the boundaries of the Town of Woodway.

Ideas for Implementation:

- GIS base map provided by University of Washington students participating in a GIS course. (Note: This is currently under development.)
- Available data will be identified, evaluated, and implemented.
- Base map will be maintained and updated by Town of Woodway staff.

Coordinating Organization: Woodway Public Works
Estimated Price: \$6,000
Funding Source: General Fund
Timeline: Ongoing
Plan Goals Addressed: Protect Life & Property; Increase Public Awareness; Encourage Partnerships; Provide for Emergency or Critical Services; Facilitate Continuity & Recovery; Protect Natural Systems
Benefit-to Cost Analysis: 6

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input checked="" type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input type="checkbox"/> 5
		<input checked="" type="checkbox"/> 6 – Highest

WW-02-MH-ST: Conduct storm drainage survey to assist in planning to reduce flooding and landslide threats.

Ideas for Implementation:

- Conduct physical survey and catalog storm water system.
- Update survey data into Comprehensive Plan and GIS.

Coordinating Organization: Public Works
Estimated Price: \$3,000
Funding Source: General Fund
Timeline: 1 year
Plan Goals Addressed: Protect Life & Property; Facilitate Continuity & Recovery; Protect Natural Systems
Benefit-to Cost Analysis: 5

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input checked="" type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

WW-03-MH-ST: Coordinate hazard mitigation with outside entities.

Ideas for Implementation:

- Continue as member city in ESCA.
- Provide preparedness education opportunities to the Citizens of Woodway through ESCA and other regional partnerships as available.
- Evaluate neighboring jurisdictions' mitigations as they pertain to Woodway.
- Coordinate and incorporate methodologies from neighboring jurisdictions into the local plan as appropriate.
- Include regional plans as part of local plan.

Coordinating Organization: Woodway Executive Department;
Woodway Administration; Woodway
Public Works; *ESCA*

Estimated Price: \$1,500

Funding Source: General Fund

Timeline: Ongoing

Plan Goals Addressed: Protect Life & Property; Increase Public
Awareness; Encourage Partnerships;
Provide for Emergency & Critical
Services; Facilitate Continuity &
Recovery; Protect Natural Systems

Benefit-to Cost Analysis: 5

Approx Cost +	Effectiveness=	Priority / Benefit-to-Cost Review
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input checked="" type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

WW-04-MH-LT: Develop Storm Water Comprehensive Plan and evaluate storm water impacts, including as it applies to landslide zones; incorporate policies into zoning, codes and other existing documents.

Ideas for Implementation:

- Study the interrelationship of wetland preservation and bluff stability in wetlands that are in proximity to landslide-prone areas.
- Evaluate storm water impact on marine bluff stability.
- Implement Town Engineer’s proposed voluntary storm water comprehensive plan of work which includes: evaluating current conditions, prescribing course of action, and proceeding with prescribed actions.

Coordinating Organization: Woodway Executive Department; Woodway Administration; Woodway Engineering; Woodway Planning; Woodway Public Works; *Consultants*

Estimated Price: To be determined

Funding Source: General Fund and Grants as available

Timeline: 4 years

Plan Goals Addressed: Protect Life & Property; Increase Public Awareness; Encourage Partnerships; Provide for Emergency & Critical Services; Facilitate Continuity & Recovery; Protect Natural Systems

Benefit-to Cost Analysis: 5

<u>Approx Cost +</u>		<u>Effectiveness= Priority / Benefit-to-Cost Review</u>	
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest	
<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3	
<input type="checkbox"/> 3 – Low	<input checked="" type="checkbox"/> 3 – High	<input type="checkbox"/> 4	
		<input checked="" type="checkbox"/> 5	
		<input type="checkbox"/> 6 – Highest	

DROUGHT Mitigation Items (D)

WW-05-D-ST: Work with Olympic View Water District's to educate consumers about drought impacts and ways to minimize water waste.

Ideas for implementation:

- Work cooperatively with local water districts to advise residents of watering schedules as recommended by local water districts.

Coordinating Organization: Woodway Public Works; Olympic View Water District
Estimated Price: To be determined
Funding Source: General funds; grants
Timeline: Ongoing
Plan Goals Addressed: Protect Life and Property; Increase Public Awareness; Encourage Partnerships
Benefit-to Cost Analysis: 4

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input checked="" type="checkbox"/> 2 – Medium	<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input checked="" type="checkbox"/> 4
		<input type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

EARTHQUAKE Mitigation Items (E)

WW-06-E-ST: Conduct non-structural retrofit activities.

Ideas for implementation:

- Strap down and secure computers and other office equipment and machinery.
- Secure shelves, lockers, and furniture to walls.
- Conduct walk-through to ensure that heavy items are not stored overhead. Secure heavy items in place or move to safer locations.
- Ensure facility water heaters are strapped securely to wall studs in accordance with current requirements.
- Secure ceiling tiles and light fixtures with wires.
- Secure back-up generator and HVAC equipment.
- Secure ducts and piping.
- Install plastic sleeves on fluorescent lighting tubes.
- Replace untempered glass with tempered glass, or install polyester shatter-resistant film over existing glass.
- Install child-proof latches on drawers and cabinets in appropriate locations.
- Prepare three-day emergency kits with water, food, etc. for Town of Woodway staff.

Coordinating Organization: Woodway Administrative Department;
Woodway Public Works

Estimated Price: \$500

Funding Source: General funds

Timeline: Ongoing

Plan Goals Addressed: Protect Life & Property; Provide for
Emergency & Critical Services;
Facilitate Continuity and Recovery

Benefit-to Cost Analysis: 5

<u>Approx Cost</u>	<u>+</u>	<u>Effectiveness</u>	<u>= Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High		<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input checked="" type="checkbox"/> 2 – Medium		<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input type="checkbox"/> 3 – Low		<input type="checkbox"/> 3 – High	<input checked="" type="checkbox"/> 4
			<input type="checkbox"/> 5
			<input type="checkbox"/> 6 – Highest

LANDSLIDE AND SOIL DISPLACEMENT Mitigation Items (L)

WW-07-L-ST: Perform regular road inspections and maintain roads to provide maximum protection of infrastructure and minimize long-term damage from soil erosion and displacement caused by gatoring and other structural damage.

Ideas for implementation:

- Conduct windshield inspection of road surface condition during daily activities.
- Conduct pavement condition rating annually on a cycle covering 1/3 of the roads each year.
- Use daily observations and annual pavement condition rating to prioritize repair and maintenance.

Coordinating Organization: Woodway Public Works
Estimated Price: \$3,000
Funding Source: Public Works funds; Construction funds; Grants and other funds, as available
Timeline: Ongoing
Plan Goals Addressed: Protect Life & Property; Provide for Emergency & Critical Services; Facilitate Continuity & Recovery
Benefit-to Cost Analysis: 5

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input checked="" type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

WW-08-L-LT: Improve knowledge of landslide hazard areas and understanding of vulnerability and risk to lives and property in hazard-prone areas.

Ideas for implementation:

- Incorporate landslide information into GIS mapping, and planning and the Town of Woodway’s Comprehensive Plan.
- Develop public information to emphasize economic risk when building on potential or historical landslide areas.
- Develop or attain public information brochures to educate the community on how to maintain and enhance slope stability.
- Cooperate and participate in regional landslide research projects.

Coordinating Organization: Woodway Planning; *Washington State Department of Natural Resources*
Estimated Price: To be determined
Funding Source: Grants/General Fund
Timeline: 5 years
Plan Goals Addressed: Protect Life & Property; Increase Public Awareness; Encourage Partnerships
Benefit-to Cost Analysis: 5

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input type="checkbox"/> 3 – Low	<input checked="" type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input checked="" type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

SEVERE STORM Mitigation Items (S)

WW-09-S-LT: Conduct annual tree safety evaluation to determine vulnerability of full or partial failure that may occur during a storm event.

Ideas for Implementation:

- Annually budget funds for a consulting arborist to conduct the evaluation.
- Remediate identified hazards from vulnerable trees by trimming or full removal.

Coordinating Organization: Woodway Executive Department;
Woodway Public Works;
Consultants/Contractors

Estimated Price: \$2,000

Funding Source: General Fund and Grants as available

Timeline: Ongoing

Plan Goals Addressed: Protect Life & Property; Provide for
Emergency & Critical Services;
Facilitate Continuity & Recovery; Protect
Natural Systems

Benefit-to Cost Analysis: 6

<u>Approx Cost +</u>	<u>Effectiveness=</u>	<u>Priority / Benefit-to-Cost Review</u>
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input checked="" type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input type="checkbox"/> 5
		<input checked="" type="checkbox"/> 6 – Highest

TSUNAMI & SEICHE Mitigation Items (T)

NONE AT THIS TIME

VOLCANO Mitigation Items (V)

WW-10-V-ST: Develop and implement policy for maintaining stock of filters for key vehicles and pieces of equipment.

Ideas for implementation:

- Identify key vehicles and equipment such as: back-up generators, HVAC and/or other large or unusual equipment requiring filters.
- Establish policy and budget to maintain spare filters.

Coordinating Organization: Woodway Executive Department;
Woodway Public Works

Estimated Price: To be determined

Funding Source: General fund

Timeline: 5 years

Plan Goals Addressed: Protect Life & Property; Provide for
Emergency Services; Facility Continuity
and Recovery

Benefit-to Cost Analysis: To be determined

Priority: 4

Approx Cost +	Effectiveness=	Priority / Benefit-to-Cost Review
<input type="checkbox"/> 1 – High	<input checked="" type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input checked="" type="checkbox"/> 4
		<input type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

WILDLAND-URBAN INTERFACE FIRE Mitigation Items (W)

WW-11-W-ST: Minimize fire risks.

Ideas for implementation:

- Maintain right-of-way areas by cutting grass and thinning underbrush.
- Ban use of fireworks within town limits.

Coordinating Organization: Woodway Executive Department;
Woodway Public Works

Estimated Price: \$2,500

Funding Source: General fund

Timeline: Ongoing

Plan Goals Addressed: Protect Life & Property; Increase Public Awareness; Provide for Emergency Services; Facility Continuity and Recovery

Benefit-to Cost Analysis: 5

Approx Cost +	Effectiveness=	Priority / Benefit-to-Cost Review
<input type="checkbox"/> 1 – High	<input type="checkbox"/> 1 – Low	<input type="checkbox"/> 2 – Lowest
<input type="checkbox"/> 2 – Medium	<input checked="" type="checkbox"/> 2 – Medium	<input type="checkbox"/> 3
<input checked="" type="checkbox"/> 3 – Low	<input type="checkbox"/> 3 – High	<input type="checkbox"/> 4
		<input checked="" type="checkbox"/> 5
		<input type="checkbox"/> 6 – Highest

¹ The Town of Woodway Comprehensive Plan, Year 2000 Update (2000).

² *Ibid.*

³ *Ibid.*