

# **Swinomish Indian Tribal Community**

## **Jurisdiction-Specific Tribal Requirements, Vulnerability Assessment, and Mitigation Initiatives**

### **Assurances**

The Swinomish Indian Tribal Community's participation as a Tribal jurisdiction in the **Skagit County Natural Hazards Mitigation Plan (HMP)** meets the requirements of Section 409 of the Stafford Act and Section 322 of the DMA 2000. This includes meeting the requirement that the HMP be adopted by the Tribe. In addition, as required by 44 CFR 13.11(c) and 13.11(d), the Tribe will comply with all applicable Federal statutes and regulations during the periods for which grant funding is received, and will amend the plan whenever necessary to reflect changes in Tribal or Federal laws and statutes.

At the conclusion of the plan update process, and following receipt from FEMA of a notice of pre-adoption approval of the plan, the Tribe will sign a resolution formally re-adopting the updated **Skagit County Natural Hazards Mitigation Plan**. A copy of the resolution, adopted by the Swinomish Indian Tribal Community (herein referred to as the Tribe), assures FEMA that the Tribe will comply with both of the CFR requirements. The resolution is presented in Appendix A.

### **Initial Planning Process, 2003**

The Swinomish Indian Tribal Community, as well as other tribes, jurisdictions, special districts, and Skagit County, began the 2003 **Skagit County Natural Hazards Mitigation Plan** (hereafter referred to as the 2003 HMP) planning process in January 2003. Under the leadership of Skagit County Dike District #12 and the City of Burlington, the Skagit Natural Hazards Mitigation Steering Committee was formed as a way to establish an outline and schedule, develop plan goals and objectives, adhere to the DMA 2000, and ultimately write the plan. In addition to the Steering Committee, the Skagit Natural Hazards Mitigation Planning Committee was formed and met each month beginning in January 2003, and concluding in September 2003 as a means to gather and share information, assess vulnerabilities, identify critical facilities, assist in developing mitigation strategies, and provide continuity throughout the planning process. Jeffrey Hegedus, an environment engineer, represented the Swinomish Indian Tribal Community as the tribe's Community Representative on the Planning Committee. The Planning Committee convened once per month during the planning process.

Early in the 2003 planning process, members of the Skagit Natural Hazards Mitigation Steering Committee met with the Swinomish Indian Senate to discuss the reasons and benefits for developing and adopting a multi-jurisdictional natural hazard mitigation plan.

The Swinomish Indian Senate signed Swinomish Resolution No. 2003-03-020 on March 4, 2003 agreeing to participate in the development of a multi-jurisdictional natural hazard mitigation plan.

During the nine-month planning period, the Skagit Natural Hazards Mitigation Steering Committee, in close cooperation with the Skagit County Department of Emergency Management, compiled information and collected data for nine natural hazards: avalanche, drought, earthquake, fire, flood, land movement, severe storms, tsunami/seiche, and volcanic

activity. Information was obtained from local historical records, and a wide variety of local, state, and federal agencies, and the 20/20 Mitigation Software. In addition, the Planning Committee obtained public input from a larger Extended Planning Committee in which community members could participate in the planning process during 5 public meetings held from March 2003 to July 2003.

Following completion of the plan, the Swinomish Indian Senate signed Swinomish Resolution 2003-09-213 formally adopting the **Skagit County Natural Hazards Mitigation Plan**.

### **Plan Update Process, 2008**

As required by DMA 2000, a Tribal HMP must be updated every 5 years or when substantial changes are made to the plan. On March 5, 2008 the Skagit Hazard Mitigation Planning Committee held a meeting to begin the plan-update process for the participating jurisdictions involved in the 2003 HMP. New jurisdictions were also identified to participate in the process as part of this HMP update. As such, Ed Knight represented the Swinomish Indian Tribal Community as the Community Representative on the Planning Committee.

During the initial update meeting, the Skagit Natural Hazards Mitigation Planning Committee, members reviewed the DMA 2000, the plan update process, the plan outline, and a proposed plan update schedule. The Planning Committee also assessed a matrix of hazards addressed in the recently updated Washington State HMP and 2003 HMP.

A summary overview of the plan update actions is listed in SECTION I of this plan. A summary of the 2008 plan update actions accomplished by the Swinomish Indian Tribal Community is listed below:

### **Summary of Initial Update Findings**

<b>2003 HMP</b>	<b>Actions Taken</b>
<b>SECTION I: The Planning Process</b>	
<b>SECTION II: Multi-Jurisdictional Hazard Identification</b>	Update the nine hazard profiles to include recent disaster information, change in hazard location, extent, and probability of future events. Include one new hazard into the hazard profile (tidal surge) and discussions of emerging climate change and its associated impacts (primarily the rise in sea level).
<b>SECTION III: Multi-Jurisdiction/Multi-Hazard Mitigation</b>	Review and re-evaluate mitigation goals and action items; update (as needed) to reflect changes in hazard vulnerability assessment and current needs.

## Summary of Initial Update Findings

2003 HMP	Actions Taken
<b>SECTION IV: Jurisdiction Specific Information: Hazard Vulnerability Assessment &amp; Mitigation Strategies</b>	<p>[Update/Revise] Planning Process &amp; Tribal Community Introduction to include updated information to address Tribal and Update Specific criteria.</p> <p>[Update/Revise] Jurisdiction Summary to include new critical facilities specific to the Swinomish Indian Tribal Community.</p> <p>[Update/Revise] Current Land Uses &amp; Potential for New Development to include the addition of new lands to the Reservation as well as documentation of increases in development.</p> <p>[Update/Revise] Future Land Uses &amp; General Development.</p> <p>[Update/Revise] Neighborhood Types and Structure Characterization.</p> <p>[Update/Revise] Comparison of Jurisdictional Relative Risk.</p> <p>[Update/Revise] Basic Demographic Information.</p> <p>[Update/Revise] Mitigation Initiatives.</p>

### Risk Assessment Update Process, 2008

Over an eight-month period, the Swinomish Indian Tribal Community representative worked with the Skagit Natural Hazards Mitigation Planning Committee to develop draft hazard and asset figures and the draft vulnerability analysis. The Fire, Flood, Severe Local Storm and Tsunami-Seiche sections were updated. Updates to the Severe Local Storm section included mention of “a severe low pressure weather event accompanied by high winds and coinciding with high tide created a 100-year tidal surge event within the Town of Ia Conner and the Swinomish Indian Tribal community.” Based on the results of the vulnerability analysis, the following hazards were ranked according to the potential risk to the Swinomish Indian Tribal Community:

Primary Hazards: Earthquake, High Winds, Severe Local Storm

Secondary Hazards: Wildfire, Volcano, Tsunami/Seiche, Severe Local Storm

The updated hazard profiles located in the main text of this plan describe the nature, location, extent, history, and probability of future events for the hazards that affect the entire county as well as those identified above. The Swinomish Indian Tribal Community does not participate in the National Flood Insurance Program, and there are no floodplains or frequently flooded areas identified, delineated, or mapped within the Swinomish Indian Reservation. There are no repetitive loss properties located within the Swinomish Indian Reservation. Given that, below is a table summarizing presumed impacts of identified hazards on Reservation lands, structures, and infrastructure. Based on the limited geographic area of the Reservation, as compared to Skagit County, most potential hazards are presumed to impact the Reservation as a whole, except where noted. The 20/20 data tables were revised and updated based on newly collected information and provide a summary of the Swinomish Indian Tribal Community's overall vulnerability regarding each hazard.

An analysis of the risks and impacts to the Swinomish Indian Tribal Community related to the local natural hazards was developed using FEMA-supplied 20/20 mitigation software. A summary of these risks and impacts follow. The risk and impact analysis and scoring matrix is described on pages 1 & 2 of SECTION IV of this plan.

Hazard	Residential Structures At Risk	Population At Risk	Non-residential Facilities At Risk	Estimated Value Facilities At Risk	Summary of Jurisdiction Vulnerability
Earthquake	1400	3100	20 <sup>1</sup>	\$86,261,000 <sup>1</sup>	Based on PGA probability maps produced by the USGS, areas with Tribal critical facilities are likely to experience a greater than 5.0 M (strong shaking) (15-20 percent of the acceleration of gravity). This rating represents the peak acceleration of the ground caused by the earthquake.  All Tribal critical facilities and infrastructure and the entire population are vulnerable earthquake impacts.
High Winds	1400	3100	20 <sup>1</sup>	\$86,261,000 <sup>1</sup>	The natural hazards resulting from severe storms, such as high wind and tidal surge, are often widespread. A single event is capable of impacting all Tribal critical facilities and infrastructure, including the entire tribal population.
Severe Local Storm	1400	3100	20 <sup>1</sup>	\$86,261,000 <sup>1</sup>	
Wildfire <sup>2</sup>	300	500	1	\$200,000	Based on proximity to upland forested areas of the Reservation
Volcano <sup>3</sup>	1400	3100	20 <sup>1</sup>	\$86,261,000 <sup>1</sup>	Due to the nature of the hazard, it is impossible to predict the location or extent of future events with any probability, although it can be assumed that all Tribal critical facilities and infrastructure including the entire population are at risk from volcano impacts.
Tsunami/Seiche <sup>4</sup>	150	250	4	\$15,500,000	Based on proximity to low-lying shoreline areas surrounding the reservation.

<sup>1</sup>Includes some non-tribal facilities, such as neighborhood churches and community buildings.

<sup>2</sup>Figures estimated based on proximity to upland forested areas of the Reservation.

<sup>3</sup>Threat/impact is only in event of major eruption impacting the entire region; distance from known volcanoes and prevailing winds limit the immediate threat from lesser eruptions.

<sup>4</sup>Impacts limited to low-lying shoreline areas surrounding the Reservation; majority of upland areas not impacted.

## **Mitigation Strategy Update Process, 2008**

The Mitigation Goals identified in SECTION III of this plan were identified after reviewing the results of the risk assessment and are intended to reduce the impacts to the people and property within the Swinomish Indian Reservation. The goals identified in the 2003 plan were re-evaluated and re-affirmed as part of the 2008 update process. The goals are summarized below and are described in detail in SECTION III.

- Protect Life and Property
- Increase Public Awareness
- Encourage Partnerships
- Provide for Emergency Services

In addition, the Skagit Natural Hazards Mitigation Planning Committee reviewed and revised a list of potential multi-jurisdiction/multi-hazard action items associated with the hazards identified during the initial and update process. Each action item that had been identified was reviewed to determine whether it had been completed, was still applicable, or needed revision based on the newly acquired information that had been developed as part of the update process. The Swinomish Indian Tribal Community representative worked with the Tribal government to develop a list of high-priority mitigation measures to be listed in the jurisdiction specific implementation strategy. These measures were reviewed based on the following evaluation criteria, such as cost-benefit, local/community support, and funding availability for each jurisdiction. After the measures had been prioritized, information for each measure was collected to include an estimated timeline, potential funding basis, and administration.

The Swinomish Indian Tribal Community reviewed the current plans and ordinances identified on the next page and incorporated updated information into this jurisdiction specific vulnerability assessment. This was primarily related to land development and demographic information updates.

Since the Swinomish Indian Tribal Community has been an active participant in the hazard mitigation planning process over the last five years, the integration of the process with ongoing tribal planning efforts and FEMA programs and initiatives has been considered, primarily during the course of updating and adopting new land use codes and ordinances, such as the Swinomish Zoning Ordinance, Subdivision & Binding Site Plan Ordinance, Swinomish Building Code, Shorelines & Sensitive Areas Ordinance, and Land Clearing Ordinance to address future development in hazard areas.

The mitigation planning process was integrated with other ongoing Tribal and FEMA planning efforts to include:

- expanding the Tribe's geographic information system (GIS) database to include hazard information;
- incorporating hazard profiles and mitigation actions into Tribal planning processes, including the Tribal comprehensive plan, transportation plan, and forest management plan.

As shown below, the Tribe currently supports pre-disaster and post-disaster hazard mitigation through regulations, plans and programs. Tribal mitigation policies include enforcing the International Building Code through permit and inspection.

## Legal and Regulatory Resources Available for Hazard Mitigation

Type of Mitigation	Regulatory Tool	Name/Type	Evaluation of Regulatory Tool on Hazard Mitigation
Pre-Disaster Mitigation	Policies	Swinomish Building Code (2003 IBC)	The International Building Code applies to Tribal structures. Structures built to code are less likely to be vulnerable to hazardous conditions, including windstorms, wild land fires, etc. The Tribe issues building permits and performs building inspections as required by the code.
		Zoning Ordinance	Designates allowable land uses and provides for control of site development parameters.
		Subdivision & Binding Site Plans	Provides comprehensive review of proposed land divisions and uses and control of site development, including any applicable restrictions, conditions, and/or mitigation.
		Shorelines & Sensitive Areas	Provides for review of environmental issues and potential impacts related to development in shoreline zones and designated sensitive areas, including any applicable restrictions, conditions, and/or mitigation for hazards.
		Land Clearing	Provides for review of proposed land clearing activity, including any applicable restrictions, conditions, and/or mitigation for potential hazards.
	Programs	Geographical Information Systems	The Tribal GIS Department currently manages Tribal land-cover information. This information can be used to identifying existing hazard-prone areas and areas for future Tribal development.
Post-Disaster Mitigation	Plans	Forest Management Plan	The Forest Management Plan provides both pre-and post disaster guidance associated with healthy forests.

The following fiscal capability assessment lists specific financial and budgetary tools that are currently available, as well as potentially available, to the Tribe for hazard mitigation actions. These resources, which are listed below, include private, state and federal entitlements. General Tribal funds can be used for hazard mitigation, although the mitigation projects must be consistent with other needs of the Tribe.

## Current and Potential Financial Resources for Hazard Mitigation

Sources	Financial Resource	Effect on Hazard Mitigation
Current	Indian Community Development Block Grant Program	U.S. Housing and Urban Development provides critical housing and community development resources to aid disaster recovery.

## Current and Potential Financial Resources for Hazard Mitigation

Sources	Financial Resource	Effect on Hazard Mitigation
Potential	Imminent Threat, Indian Community Development Block Grant Program	Funding to alleviate or remove imminent threats to health or safety.
Current	Indian Reservation Roads Transportation Funding	Providing safe access through hazard-prone areas.
Potential	Administration for Native Americans (ANA) Grant Programs	These discretionary funds can be used to fund a variety of environmental management programs, including the identification and assessment of human and natural hazards and their associated risks, and the development and implementation of plans, policies and ordinances.
Potential	Department of Homeland Security Preparedness Technical Assistance Program	This grant provides direct assistance to communities to improve their ability to prevent, protect against, respond to and recover from major events. A primary objective of the program is to enhance the capacity of the community to develop, plan and implement effective strategies for human-made preparedness.
Potential	Assistance to Firefighters Grant (AFG) Program's Fire Prevention and Safety Grant	The AFG funds the Fire Prevention and Safety activity and the Firefighter Safety Research and Development activity. These grants are to be used for fire prevention or safety programs and activities.
Potential	FEMA Hazard Mitigation Grant Program, Flood Mitigation Assistance (FMA) grants, and Pre Disaster Mitigation Grants	HMGP grant funding is available to State, Tribal and local communities after a Presidentially-declared disaster. It can be used to fund both pre- and post-disaster mitigation plans and projects. PDM funding is available on an annual basis. This grant can only be used to fund PDM plans and projects. FMA grant funding assists States, Tribes, and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to structures insurable under the NFIP.
Potential	National Flood Insurance Program	The NFIP makes Federally backed flood insurance available to homeowners, renters and business owners in NFIP-participating States, Tribes, and communities.
Potential	Lindbergh Grants Program	Annual grants program that provides \$10,580 per project to balance the advance of technology and the preservation of the natural/human environment. Can be used for conservation of natural resources (i.e., sustainable development codes) and public outreach/education projects.

The Swinomish Indian Tribal Community considers the public to be those Tribal and non-Tribal residents that live in, or in close proximity to land, residences, or critical facilities within the exterior boundaries of the Swinomish Indian Reservation. Since this planning process was completed as part of a multi-jurisdictional process with the County, other Tribes and incorporated cities, opportunities for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved through area-wide invitations to participate in the planning update process. Notices of public meetings were advertised through newspapers.

### **Monitoring, Evaluating, and Updating**

The Tribe will use the Swinomish Indian Tribal Planning representative to monitor, evaluate and update the HMP. In addition, other interested parties can participate in this process. The representative (currently Ed Knight) will serve as the primary point of contact and will coordinate all local efforts to monitor, evaluate and revise the jurisdiction specific aspects of this HMP.

The Tribal HMP representative will conduct an annual review to monitor progress in implementing the HMP, particularly the Mitigation Action Plan.

A report should be forwarded to Skagit County Emergency Management for inclusion in the annual report that is sent to the Washington State Mitigation Officer no later than September 30<sup>th</sup> of each year as described in the Plan Evaluation and Update Schedule 2009-2013 located in the Plan Maintenance portion of this plan.

The annual review will provide the basis for possible changes in the HMP's Mitigation Action Plan, by refocusing on new or more threatening hazards, adjusting to changes to or increases in resource allocations, and engaging additional support for the HMP implementation. The Tribal HMP representative will initiate an annual review by questionnaire one month prior to the next date of consideration of adoption.

The Tribal HMP representative will collect the questionnaire and summarize the results into an annual report. This report will be distributed to all Steering Committee members, Tribal Council members and other interested agencies, departments and persons.

As described in the Plan Maintenance portion of this plan, updates shall commence no later than March 1<sup>st</sup> of the scheduled update year according to the Plan Evaluation and Update Schedule 2009-2013. As part of this process, the Skagit Natural Hazards Mitigation Steering Committee will undertake the following activities to evaluate the plan and ensure that the HMP is readopted in the fifth year:

- Thoroughly analyze and update the Tribe's risk to the community, facilities, and infrastructure from natural hazards.
- Review the previous annual reviews, including the mitigation activities progress reports.
- Provide a detailed review and revision of the Mitigation Strategy.
- Prepare a new Mitigation Action Plan with prioritized actions, responsible parties and resources.
- Prepare a new jurisdiction specific draft HMP and submit it to the Tribal Council for approval.



- Coordinate with the County to submit an updated HMP to FEMA for approval.

### **Monitoring Progress of Mitigation Actions**

The Tribal HMP representative will be responsible for monitoring mitigation project implementation and closeout. If more than one department and/or agency are identified for a mitigation project, the Tribal HMP representative will work with the Steering Committee to identify a single department or agency to monitor the mitigation project implementation and closeout. The chosen department will monitor the status of the project implementation using the Mitigation Action Progress Report.

The Mitigation Action Progress Report will include the current status of the mitigation project, including any changes made to the project, total project costs and expected overruns, the identification of implementation problems and appropriate strategies to overcome them, and whether or not the project has helped to achieve the appropriate goals identified in the plan.

Each overseeing agency and/or department will complete the report on a quarterly basis as a way to monitor and, if necessary, revise project implementation. Prior to each annual review, the overseeing agency and/or department will summarize the quarterly reports into one report and submit this report to the Steering Committee for review. The Steering Committee will review each report to determine if progress has been made toward achieving the completion of each mitigation project as well as the overall goals identified in the Mitigation Strategy.

Additionally, the report will be submitted annually to the Planning and Grants Department, which will oversee all of the grants associated with this plan. If necessary, the Steering Committee leader may also request that these reports be submitted quarterly to the Planning and Grants Department for grant management purposes. Finally, each overseeing agency and/or department will be required to submit a closeout report to the Tribal HMP representative at the conclusion of any mitigation project.

### **Swinomish Indian Tribal Community**

The Swinomish Indian Tribal Community (SITC) is a political successor in interest to tribes, bands, and groups of Indians, including those known as the Lower Skagit, Kikiallus, Swinomish, and Samish, that were signatories to the Treaty of Point Elliot of January 22, 1855, as ratified by Congress on March 8, 1859. The Tribe is federally recognized and operates under Constitution and By-laws adopted in 1936 pursuant to the Indian Reorganization Act of 1934. The Tribe is governed by an 11 member Senate led by the Tribal Chairman. The Tribe's administrative structure includes a Planning and Community Development Department, Social Services Department, Utility Authority, Housing Authority, Police Department, Tribal Court, and Fisheries Office.

The Tribe's land base is the Swinomish Indian Reservation located west of the Swinomish Channel near La Conner, Washington, approximately 70 miles north of Seattle. The Reservation occupies the Southeast peninsula of Fidalgo Island, encompassing 7,450 acres of upland area and 2,900 acres of Tribally owned tidelands. Ownership of the Reservation uplands consists of 36% alienated fee land (2,675 acres), 38% individual trust land (2,830 acres), and 26% tribal trust land (1,945 acres).

The Reservation population is approximately 3,100, of which approximately 23% are enrolled Tribal members or of other Indian nationality. The non-Indian majority principally occupies about 800 homes on leased Tribal trust land in the Shelter Bay residential area and about 100 homes in the west shore area of the Reservation. Five hundred Tribal members live in the Swinomish Village housing complex, with remaining Tribal members living throughout the Reservation. Additional residential areas are clustered throughout the shoreline zone, and forestry and other low-density land uses occupy the uplands.

## **CULTURAL USE SITES**

The Swinomish Indian Tribal Community has identified historically significant cultural use sites as part of its planning process. Due to the proprietary and sensitive nature of data on tribal cultural use areas and sites, the Tribe maintains confidential access to this data and addresses potential impacts on such areas through consultation with the Tribe by outside entities.

## **PLAN JURISDICTION**

<b><u>Contact Information:</u></b>	Charlie O'Hara, Director, Planning Department Swinomish Indian Tribal Community P.O. Box 817 La Conner, WA 98257 Telephone: (360) 466-7280
<b><u>Neighborhood Characterization:</u></b>	Reservation boundaries (Figure 1) define plan neighborhood limits. Figure 3 illustrates zoning, Figure 4 provides aerial view, Figure 5 illustrates buildings, roads and topography
<b><u>Population of Jurisdiction:</u></b>	3,100 and growing slightly
<b><u>Geographical Size:</u></b>	7,450 upland acres + 2,900 acres tidelands
<b><u>Economic Characteristic:</u></b>	Economically disadvantaged <i>*Economically distressed as per the State</i>
<b><u>Current Adopted Hazard Mitigation Codes/Plans/ Ordinances:</u></b>	1996 Comprehensive Land Use Plan, 2005 Zoning Code, 2003 International Building Code, 2003 International Fire Code, Forest Management Plan, Transportation Plan, 2005 Shorelines & Sensitive Areas Code, 2005 Land Clearing Code
<b><u>Critical Facilities:</u></b>	Social Services/Police Station, Medical Center, Dental Clinic/Senior Center, Tribal Administration Office, Planning Department, Housing Department, Gymnasium/Daycare/Community Center, Fisheries Office, Public Works Department, Sewage Treatment System, Casino, Gas Station, Fish Plant, Water System (Figure 2)
<b><u>Primary Hazards:</u></b>	Earthquake, High Winds, Winter Storm

Secondary Hazards:

Wildfire, Volcano, Tsunami/Tidal Surge

### **MITIGATION INITIATIVES**

1. Seismic Retrofitting of Critical Facilities
2. Assessment and Provision of Emergency Power Supplies
3. Development of Warning and Evacuation Plan, and Infrastructure Implementation
4. Public Emergency Preparedness Education Program Development and Implementation
5. Adaptation/mitigation planning for low-lying and other at-risk areas

# Jurisdiction Summary

## Swinomish Indian Tribal Community: Swinomish Reservation

### Jurisdiction Profile

Land area within the existing jurisdiction:	<u>(upland) 7,450</u> acres
Land area within urban growth area/residential zone:	<u>1,618</u> acres
Land area of park, forest, and/or open space:	<u>4,845</u> acres
Land area set aside as resource lands:	<u>350</u> acres
Land area designated commercial/economic zone:	<u>615</u> acres
Current population:	<u>3,100</u> residents
Expected population in 2025:	<u>4,000+</u> residents
Approximate Annual Budget:	<u>\$27,000,000</u>

Current and Anticipated Development and Population Trends: Slow to moderate increase in mixed use commercial and residential development is projected.

### Jurisdiction Infrastructure Summary

Miles of Streets/Road:	<u>42</u>	approximate value:	<u>\$30,450,000</u>
Number of Bridges:	<u>3</u>	approximate value:	<u>\$21,000,000</u>
Miles of Sanitary Sewer:	<u>7</u>	approximate value:	<u>\$ (below)</u>
Miles of Storm Sewer:	<u>4</u>	approximate value:	<u>\$ 600,000</u>
Miles of Water Line:	<u>16</u>	approximate value:	<u>\$ (below)</u>
Other: <u>Docks/ Pier</u>		approximate value:	<u>\$ 673,000</u>
Other: <u>Oil Spill Building</u>		approximate value:	<u>\$ 15,000</u>

### Critical Facilities:

1. <u>Social Services/ Police Station</u>	approximate value:	<u>\$ 3,860,000</u>
2. <u>Medical Center</u>	approximate value:	<u>\$ 1,527,000</u>
3. <u>Dental Clinic/ Senior Center</u>	approximate value:	<u>\$ 928,000</u>
4. <u>Tribal Administration Office</u>	approximate value:	<u>\$ 2,000,000</u>
5. <u>Planning Department</u>	approximate value:	<u>\$ 1,500,000</u>
6. <u>Housing Department/Utility Office</u>	approximate value:	<u>\$ 209,000</u>

7. <u>Gymnasium/ Daycare/ Community Center</u>	approximate value:	\$ 1,828,000
8. <u>Fisheries (Skagit River Systems Cooperative)</u>	approximate value:	\$ 284,000
9. <u>Sewage Treatment Plant/System</u>	approximate value:	\$ 4,000,000
10. <u>Swinomish Casino</u>	approximate value:	\$ 9,412,000
11. <u>Fish Plant</u>	approximate value:	\$ 1,675,000
12. <u>Water System</u>	approximate value:	\$ 2,100,000
13. <u>Public Works Department</u>	approximate value:	\$ 200,000
14. <u>Gas Station</u>	approximate value:	\$ 2,000,000

Total estimated value of relevant municipal infrastructure: \$84,261,000

### Natural Hazard Event History

NATURAL HAZARD EVENTS (1975-PRESENT) THAT HAVE RESULTED IN DECLARED EMERGENCIES		
Type of Event	Date	Total Public Damage
Nisqually Earthquake	February 2001	\$6,000
High tide storm surge	February 2006	Unknown
High wind storm	November 2006	Unknown

### Natural Hazard Vulnerability Analysis Rating

The Swinomish Reservation is most vulnerable to the following natural hazards ranked in order:

1. Earthquake
2. High Winds
3. Winter Storm
4. Tsunami/seiche

### Existing Applicable Natural Hazard Mitigation Policies, Ordinances, and Codes

1. 2003 International Building Code
2. 2003 International Fire Code
3. 1996 Comprehensive Land Use Plan
4. 2003 Forest Management Plan
5. 2002 Transportation Plan
6. 2005 Zoning Ordinance (latest update)
7. 2005 Shorelines & Sensitive Areas Ordinance
8. 2005 Land Clearing Ordinance

### Mitigation Measures

<b>Mitigation Measure</b>	<b>Lead Agency</b>	<b>Funding Source</b>	<b>Time Line</b>	<b>Status</b>
Seismic Retrofitting of Critical Facilities	Public Works Department	Grant Funding	5-8 years	Existing Action – Not addressed due to lack of available resources to implement
Assessment and Provision of Emergency Power Supplies	Public Works Department	Grant Funding	1-3 years	Existing Action – Not addressed due to lack of available resources to implement
Development of Warning and Evacuation Plan, and Infrastructure Implementation	Office of Planning and Community Development	Grant Funding	1-3 years	Existing Action – Not addressed due to lack of available resources to implement
Public Emergency Preparedness Education Program Development and Implementation	Office of Planning and Community Development	Grant Funding	1-3 years	Existing Action – Not addressed due to lack of available resources to implement
Adaptation/Mitigation Planning for Low-Lying and Other At-Risk Areas	Office of Planning and Community Development	Grant Funding	2-3 years	New Action

## Swinomish Indian Tribal Community 2008 Natural Hazard Identification and Risk Estimation

*\*Based on Mitigation 20/20 Risk Assessment Formula (Area Impacted+Health and Safety Consequences+Property Damage+Environmental Damage+Economic Disruption multiplied by Probability of Occurrence)*

*\*\*The greater the Risk Score, the greater the risk.*

	Area Impacted	Health & Safety	Property	Environment	Economic	Probability	Risk Score
<b>Earthquake</b>	4	2	2	1	2	4	<b>44</b>
<b>High Winds</b>	4	1	1	0	2	5	<b>40</b>
<b>Storm Surge/Tsunami</b>	1	1	3	2	3	2	<b>20</b>
<b>Wildfire</b>	3	1	2	2	2	2	<b>20</b>
<b>Winter Storm</b>	4	1	1	1	1	5	<b>40</b>
<b>Volcanic Activity</b>	4	3	3	2	3	1	<b>15</b>

<b>Total Jurisdictional Risk Estimation Score:</b>	<b>179</b>
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Area Impacted:	0=No impact	1=<25%	2=<50%	3=<75%	4=>75%
Health & Safety:	0=No impact	1=Few injuries	2=Few fatalities, many injuries	3=Numerous fatalities	
Property:	0=No impact	1=Few destroyed or damaged	2=Few destroyed, many damaged or	3=Many properties destroyed or damaged	
Environment:	0=Little or No impact	1=Short term	2=Long term	3=No recovery	
Economic:	0=No impact	1=Low costs	2=High direct cost and Low indirect or Low direct and High indirect	3=High Direct and Indirect Cost	
Probability:	1=Unknown but rare	2=Unknown but anticipated	3= <100 year	4=<25 year	5=Once a year or more