

# **Upper Skagit Indian Tribe**

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

### **HISTORY**

From the period of the treaties to the present, the Tribe has been under federal jurisdiction. The Elders Council conducted official business as well as social activities in efforts to sustain the culture and their Lushootseed language. The Upper Skagit Indian Tribe received federal recognition of its reorganization in accordance with section sixteen of the Indian Reorganization Act of 1934, 25 U.S.C., Section 476 on December 4, 1974. However, it was not until September 10, 1981 that the Upper Skagit Reservation was established. The lands associated with the establishment date are the two parcels at Bow Hill, of approximately 26 acres and 74 acres at Helmick Road. The Bow Hill complex includes community trust lands, individual trust lands of which the Tribe has interest, and fee parcels which the Tribe has ownership. The Helmick Road land base includes the 74 continuous acres that are Reservation lands for the Upper Skagit Indian Tribe and an adjacent seven acres acquired in 1997. The Helmick Reservation site serves as the administrative and community center for the Tribe. The Tribe is recognized as a manager of the natural resources of their territory.

### **GOVERNMENTAL ORGANIZATION**

The Tribal governing framework is organized pursuant to Section 16 of the Indian Reorganization Act of 1934, codified as 25 U.S.C.A. 476, and in accordance with the Upper Skagit Indian Tribe Constitution and By-Laws, as approved by the Secretary of the Interior. The Upper Skagit Tribal Council is the governing body of the Upper Skagit Indian Tribe, responsible for and empowered with governmental duties for safeguarding the health, safety, and welfare of the members of the Upper Skagit Tribe and residents of Upper Skagit Indian Reservation lands. The Upper Skagit Tribal Council consists of seven (7) members duly elected to serve staggered three (3) year terms. The General Council annually elects the chairman and vice-chairman. The Tribal Council elects the secretary and treasurer.

### **GENERAL SETTING AND LOCATION**

Today the Tribe's land base consists of two physically separate land areas located in Skagit County. The western land base, referred to as the Bow Hill complex, is located 8 miles north of Mount Vernon adjacent to the I-5 corridor. The eastern land base, referred to as the Helmick Road Reservation, is located on terraces at the base of Lyman Hill, two miles east of Sedro-Woolley and 15 miles northeast of Mount Vernon.

## **Bow Hill Complex**

The Bow Hill Complex includes trust lands, individual trust lands of which the Tribe has interest in, and fee parcels of which the Tribe has ownership. The Tribe has and/or is investing in approximately 400 acres of fee land and 125 acres of individual trust lands at Bow Hill. These lands combined are referred to as the Bow Hill Complex.

## **Helmick Road Reservation**

The Helmick Road Reservation includes the 74 contiguous acres that are Reservation lands for the Upper Skagit Indian Tribe and an adjacent seven acres acquired in 1997. The Helmick Road Reservation serves as the administrative and community center for the Tribe. Surface waters include palustrine and forested wetlands, first order drainages to Red Creek, and a second order tributary to Hansen Creek, which is a tributary to the Skagit River. Ground water aquifers are the source of the community's drinking water supply.

Tribal Government facilities are located on the southeastern portion of the Helmick Road Reservation adjacent to Helmick Road with a largely undeveloped hillside rising north and east of these facilities. Immediately west of these facilities is Red Creek. Community housing is adjacent to the northwestern rise of Red Creek while community service facilities are primarily west of Red Creek, including the community well fields near the western boundary of the Helmick Road Reservation and adjacent to Cokedale Road.

## **CULTURAL USE SITES**

The Bow Hill complex contains one identified area of potential significance the Tribe intends to protect in perpetuity. No cultural or historic resources exist within the surveyed parcels that are listed, eligible for listing, or would be listed with state or federal agencies. Natural resources are intended to be protected while implementing the overall economic development plan the Tribe has adopted for the complex.

The Upper Skagit Indian Tribe has not had the opportunity to provide for a community cemetery. The dedicated land, located in the northeastern portion of the Helmick Road Reservation, is being held in reserve for this purpose.

## **CLIMATE**

The Puget Sound lowlands are associated with moderating influences of marine ocean air. The typical pattern results in mild, wet winters and cool, dry summer temperatures than found in Washington's interior. The distinct wet season occurs from October through April. Prevailing winds are westerly from the Pacific Ocean and Puget Sound that flow east up the Skagit River Valley. Skagit County precipitation varies markedly from west to east, a result of the Cascade Mountain range. Average annual precipitation measured in Mount Vernon, just south of the Bow Hill Complex lands is approximately 31 inches. The Helmick Road Reservation is located in the transitional snow climate zone. Average annual precipitation ranges from 40 to 90 inches in the watershed. Precipitation is rain with persistent winter snow common at elevations above 3000 feet, but not at the lower terrace of the Helmick land base (Hansen Creek Resource Report for NSRA, 2001).

## **TOPOGRAPHY**

The Bow Hill Complex is located in Skagit County's identified Samish Bay Watershed which is bounded to the east by the Lyman Mountain Range. Creeks and un-named drainages flow to the Samish River and/or to Samish Bay. The lands that make up the Bow Hill Complex are primarily situated at the top of Bow Hill. Wetlands are either isolated, perched systems, or have outlets that drain to creek systems with varied north, east, west, and southerly drainage paths. The Bow Hill Complex parcels are gently sloped to relatively flat. Elevations vary between 245 and 300 feet above sea level. The general area is marked either by bedrock formations such as Butler and Humphrey Hills, and delta floodplains that lie between 30 and 70 feet in elevation such as Butler Flat, German Prairie, Warner Prairie and the lower Samish River Valley, or by incised drainages such as Friday Creek and the smaller Bear, Colony and Bob Smith Creeks.

The Helmick Road Reservation is situated in Skagit County's identified Lyman Watershed on terraces at the toe of Lyman Hill. The creeks of the Lyman Watershed flow to the Skagit River on the east, south and western slopes. The north side of Lyman falls within the Nooksack Watershed. The Helmick Road Reservation is situated on terraces at the toe of Lyman Hill just above the floodplain terraces of the Skagit River. Red Creek bisects the Helmick lands. Red Creek is a sub-basin watershed of the Hansen Creek Watershed and the overall Lyman Watershed. Elevations at Helmick range from 250 to 350 feet, rising primarily in the northeasterly direction.

## **LAND USE**

As previous stated, the Tribe's land base consists of two physically separate land areas, the Bow Hill Complex and the Helmick Road Reservation. The current land uses at each of these sites vary significantly and are described below.

### **Bow Hill Complex**

The Bow Hill Complex site is located adjacent to Interstate 5, in a mostly rural area of western Skagit County. Land uses in the general vicinity of the Bow Hill site include commercial, agriculture, transportation, commercial recreation (two recreational vehicle parks/campgrounds and a motor speedway) forestry, rural residential and an assortment of rural small businesses. The Thousand Trails, Inc. Campground, located approximately 0.5 mile north of the Bow Hill Complex is a 280-acre, commercial camping facility consisting of 230 campsites and RV spaces.

The Tribe designated the Bow Hill Complex as general business in July 1990, and has conducted at least five planning studies since 1979 to consider economic development options for the site. The Tribal Council applied to the U.S. Department of Housing and Urban Development for enterprise zone status for the Bow Hill Reservation in late 1988. The Tribe recognized that an anchor tenant or business needed to be attracted before substantial economic development would occur. In 1995, the Tribe opened a Casino at the site and has since expanded facilities to include a 103-room hotel that opened in the spring of 2001; an adjacent pool/spa facility as well as expanded conference facilities opened in the fall of 2001.

The trust lands are formally designated Reservation land and are made up of two non-contiguous parcels with combined acreage of 25 acres. Individually, the parcels are approximately 16.7 acres and 8.4 acres respectively. These lands lie immediately east of Interstate 5 approximately six miles north of Burlington and sixteen miles south of Bellingham. The two tribal trust parcels are separated by individual trust parcels, in which the Tribe holds interest. The parcels have connected

access along Darrk Lane which traverses the parcels north to south and divides each of the parcels into east and west sections. The larger southern parcel hosts the hotel/conference/gaming resort, the smaller, northern parcel serves as facility maintenance and overflow parking grounds.

South of these trust lands are approximately 75 acres of pasture referred to as the Pulley Ridge. Eleven of these acres are designated for commercial development which at present includes a 40 room hotel and service station. West of the I-5 corridor is a mix of lands primarily in pasture or managed forest plantation. Forest harvests occurred in the 1970's and these lands have been replanted. Varying degrees of development planning efforts are underway for these lands. A golf course complex and associated high-end residential homes are completing planning and permit stages for 300+ acres.

### **Helmick Road Reservation**

Land use within the Helmick Road Reservation is dedicated to six different development zones. These zones are housing, business, recreation, forestry, religious activity, and cemetery. Development revisions that resulted in the present land use map and zoning ordinance occurred in 1995 with input from the community prior to Tribal Council approval. Land use activities are subject to the Tribe's Environmental Procedures Act that requires submittal of an environmental checklist and/or assessment as well as review and determination of effect on the natural and human environment prior to obtaining building permits. Construction and building activities are overseen by the Public Works Director and may be provided through specifically contracted inspection agreements.

Community outreach and education activities are being prioritized to assist comprehensive planning, land use planning, utility planning, sensitive area protection planning, regulatory development, permitting, and restoration planning.

The existing housing stock for the Community includes 50 single family units and 26 rental units that include apartments and duplexes. According to the 2001 Indian Housing Plan ("IHP") the un-met housing need within the Community is 217 families. These families presently pay more than 50% of their income toward housing expense.

The Helmick land base is fully maximized and cannot support further development of housing or sewage infrastructure without land acquisition. Today, the area dedicated to business development encompasses Tribal government and community facilities which include:

- the Tribal Administration facility that hosts Tribal Council meeting rooms, administrative, planning and accounting departments, a community kitchen, housing and gaming departments
- the Social and Health Services facility that hosts social and health departments
- the Education facility that hosts the education and employment training departments
- the Woodshop facility that hosts the natural resources department, facilities maintenance, public works department, and archives
- the Timberland Services facility

Community facilities include the Child Development Center, a Cultural Center, and Recreation Center.

Forestry is dedicated to supporting wetland forest resources, buffers to the public water supply and Red Creek, and to meet the goal of providing on-Reservation cultural use access opportunities.

## **UTILITIES**

### **General**

Helmick Reservation is served by Puget Sound Energy ("PSE"). Cascade Natural Gas extended its utility to the Helmick Reservation in the fall of 2001; service connections were completed in 2004. The local telephone network is Verizon, Inc. Other telecommunication improvements are taking place through wireless and related area-wide infrastructure developments.

The Public Works Department is responsible for water supply, wastewater treatment and disposal and manages the maintenance department that serves housing, community and government complexes. The Public Works Department maintains records, certifications and reporting for the domestic supply well field that serves the Helmick Road Reservation and adjacent residents. The department also maintains three on-site septic systems serving the government facilities as well as three on-site septic systems serving the community, recreation and housing developments. In addition, the department also maintains roads, road lighting, stormwater, and manages the solid waste collection and recycle services. Fire flow for the community is wholly inadequate and requires infrastructure upgrades of service lines and storage.

### **Water**

The Public Works Department maintains operation, maintenance, and monitoring and reporting requirements consistent with the Safe Drinking Water Act. Reports are routinely filed with EPA, Region 10, Office of Water. The average system use is 19,400 gallons per day (record review 1/1/2000 through 7/2/2001) which is an increase of almost 45% over the average 1991-1993 system use of 13,500 gallons per day. Drinking water meets, and has consistently met Safe Drinking Water standards. There appears to be a natural source of Beryllium that requires further investigation. Presently, while supply can meet long-term projected growth, the infrastructure does not meet adopted standards. The Tribe is seeking planning and technical assistance to design and cost service upgrades to improve waterline size, fire flow, storage and transmission capacity.

The Tribe participates in the Skagit County Coordinated Water System Plan and under the plan is the designated provider for the Helmick Road Reservation and can establish a satellite operation at the Bow Hill Complex if it chooses. Standards for water system infrastructure, inter-ties, source water protection and conservation exist in the plan. Some of these standards are not presently met by the Tribe; where these deficiencies can contribute to non-point pollution, they will be addressed through the Management Plan. Examples of such deficiencies include inter-tie and septic disposal where they have the potential to affect the drinking water supply. Additionally, the Tribe needs to undertake coordination responsibilities for the wellhead protection area with adjacent jurisdictions.

Adjacent residential water service is made available to 6 homes downstream of the Helmick Road Reservation along Helmick Road. However, the utility ordinance requires updating to ensure all connections are being served for intended supply.

Community cemetery ground has been cleared and awaits further development. Concerns for this type of land use include potential arsenic, heavy metals and other associated contaminant release to the groundwater/drinking water supply.

## Sewer

Sewer infrastructure presently consists of community collection, treatment and disposal systems. There are 6 community systems that serve:

- the administration, social service and education facilities
- the woodshop
- the 50 family residences
- the child development center
- the 26 rental units
- the culture center and the recreation center

Wastewater disposal and treatment land is significantly inadequate in meeting the present demand and future growth projections of the community. The Tribe is in the planning and preliminary engineering process to develop a membrane bio-reactor wastewater treatment facility to address this needed infrastructure improvement.

## Solid Waste

The Tribe provides for solid waste collection services through a contract service. Full service recycling is provided for both governmental and residential facilities on the Reservation.

## **ASSURANCES**

The Upper Skagit Indian Tribe's participation as a 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 Upper Skagit Indian Tribe (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 Upper Skagit Indian Tribe, 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 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 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. Joe Hemmerich and Tom McLeod represented the Upper Skagit Indian Tribe

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 to discuss the reasons and benefits for developing and adopting 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 Upper Skagit Tribal Council formally adopted 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 Natural Hazards 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, Joe Hemmerich represented the Upper Skagit Indian Tribe as the Community Representative on the Planning Committee.

During the initial plan update meeting, Skagit Natural Hazards Mitigation Planning Committee members reviewed the DMA 2000, the plan update process, the plan update 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 the 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 Upper Skagit Indian Tribe is listed below:

1. Review and update, as needed: Planning Process & Tribal Community Introduction to include updated information to address Tribal and Update Specific criteria.
2. Review and update, as needed: Internal Jurisdiction Summary to include new critical facilities specific to the Upper Skagit Indian Tribe (Internal Information Only – To be released upon request by FEMA).
3. Review and update, as needed: Current Land Uses & Potential for New Development.
4. Review and update, as needed: Future Land Uses & General Development.
5. Review and update, as needed: Neighborhood Types and Structure Characterization.
6. Review and update, as needed: Comparison of Jurisdictional Relative Risk.
7. Review and update, as needed: Basic Demographic Information.
8. Review and update, as needed: Mitigation Initiatives.

## **VULNERABILITY ANALYSIS**

The purpose of this section of the plan is to assess the vulnerability of the Upper Skagit Indian Tribe in regards to the various natural hazards previously identified in SECTION II of this plan.

To complete the vulnerability assessment process, various tribal staff utilized a series of locally developed forms as well as forms available in the 20/20 Mitigation Software that was provided to Skagit County by the Washington State Military Department, Emergency Management Division. The information collected with these forms is included in this portion of the plan.

As part of the vulnerability assessment process, Upper Skagit Indian Tribal government completed an inventory of all critical facilities and has considered these critical facilities in our planning and mitigation strategy development process. However, due to post 9/11 concerns, those facilities are not listed separately in this document. A list of these facilities will be made available to FEMA personnel in the event this information is required to obtain future hazard mitigation grant funding.

Representatives from Upper Skagit Indian Tribe government worked closely with other jurisdictions, agencies, Indian tribes, and the Skagit Natural Hazards Planning Committee to develop a comprehensive, coordinated mitigation plan intended to reduce the vulnerability to natural hazards within the Upper Skagit Indian Tribe.

The information contained in this document presents the results of this effort to identify the specific natural hazards threatening the Upper Skagit Indian Tribe, to characterize the vulnerability of the Upper Skagit Indian Tribe regarding these hazards, and to identify current as well as proposed mitigation strategies, projects and/or programs to address those vulnerabilities.

The analyses conducted by Upper Skagit Indian Tribe staff were based on the best currently available information and data regarding the characteristics of the neighborhoods identified, the natural hazards that threaten the people, property, and environment of these neighborhoods as well as the impacts these neighborhoods have suffered in past disasters. This information includes, when available, United States Census data, audit records, local and national geographic information system data, Flood Insurance Rate Maps, hazard specific analyses, and other environmental and demographic facts. However, very often authoritative or current information simply was not available for the planning effort. In these cases, the experience, knowledge and judgment of local officials representing Upper Skagit Indian Tribe government were used in the planning, including assumptions and approximations that were believed to be reasonable. In addition, straight-forward, simplified technical analyses were used for tasks such as estimating property values, determining the size of populations affected, and so forth. The reliance on the judgment of knowledgeable officials and simplified analyses is considered acceptable at this stage to allow the participating organizations to complete the tasks needed to develop this multi-jurisdictional natural hazards mitigation plan. As the planning continues in future years, or at the time when a proposed mitigation initiative is intended to be funded and/or implemented, the participating organizations/jurisdictions recognize that additional information and analyses may be required.

The Upper Skagit Indian Tribe does not participate in the National Flood Insurance Program. There are no floodplains or frequently flooded areas identified, delineated, or mapped within the Helmick Road Reservation or the Bow Hill Complex. There are no repetitive loss properties located within the Helmick Road Reservation or the Bow Hill Complex.



The Upper Skagit Indian Tribe government is committed to the implementation of the mitigation-related projects/programs described in this section of the plan when and if resources become available. The Upper Skagit Indian Tribe government is also committed to continuing the mitigation planning process that has resulted in the development of this document, and to the ongoing cooperation with other agencies, organizations, Indian tribes, and jurisdictions to make the Upper Skagit Indian Tribe more resistant to the damages and hardships that could otherwise be the result of future natural disasters.

*NOTE: For security reasons the Upper Skagit Indian Tribe has not listed the values of individual facilities but has completed an inventory of all facilities and has considered these facilities in our planning and mitigation strategy development process. The values of these individual facilities will be made available to FEMA personnel if this information is required to obtain future hazard mitigation grant funding.*

**Helmick Road Reservation Profile:**

**General Information**

Land area: 99 acres  
 Land area of park, forest, and/or open space: 23 acres  
 Land area set aside as resource lands: 4 acres  
 Current population: 275  
 Expected population in 2025: 360

**Anticipated Development and Population Trends:** Addition of acreage and 50 single family homes.

**Public Works Infrastructure Summary**

Miles of Streets/Road: 2.0  
 Number of Bridges: 0  
 Miles of Sanitary Sewer: 1.5  
 Miles of Storm Sewer: 1.7  
 Miles of Water Line: 2.2  
 Other: Arch Culvert  
 Other: Fish Hatchery & Freshwater Intake

**Natural Hazard Event History**

NATURAL HAZARD EVENTS (1975-PRESENT) THAT HAVE RESULTED IN DECLARED EMERGENCIES		
Type of Event	Date	Total Public Damage
Nisqually Earthquake	Feb. 2001	minor

**Bow Hill Complex Profile:**

**General**

Land area: 580 acres  
 Land area of park, forest, and/or open space: 555 acres  
 Land area set aside as resource lands: 0 acres  
 Current number of employees: 400  
 Expected number of employees in 2025: 600

**Anticipated Development Trends:** Construction of Golf Course, Strip Mall and Interpretive Center.

**Public Works Infrastructure Summary**

Miles of Streets/Road: 0.5  
 Number of Bridges: 0  
 Miles of Sanitary Sewer: 0.6  
 Miles of Storm Sewer: 0.1  
 Miles of Water Line: 0.5

Based on the review of the plan and the vulnerabilities related to the natural hazards that affect the Upper Skagit Indian Tribe, the following hazards were ranked according to the potential risk to the Upper Skagit Indian Tribe’s residents and property:

Helmick Road Reservation: Windstorm, Earthquake, Ice Storm

Bow Hill Complex: Forest Fire, Windstorm, Earthquake

Additional information regarding the Upper Skagit Indian Tribe’s vulnerabilities to these natural hazards is described below:

<b>HELMICK ROAD RESERVATION</b>	
<b>Windstorm</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities; blockage of emergency ingress/egress due to falling trees and/or flying debris. Inoperable infrastructure (wastewater system and pumps) due to loss of electricity.
<b>Earthquake</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities. Damage to tribal infrastructure (roads and utility systems) due to ground displacement.
<b>Ice Storm</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities; blockage of emergency ingress/egress due to falling trees. Inoperable infrastructure (wastewater system and pumps) due to loss of electricity. Electrical hazard caused by downed high-voltage electrical transmission lines operated by the Bonneville Power Administration adjoining the easterly boundary of the reservation.
<b>BOW HILL COMPLEX</b>	
<b>Forest Fire</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities; blockage of emergency ingress/egress due to fire hazard. Loss of revenue due to threat of fire and/or damage to tribal facilities.
<b>Windstorm</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities; blockage of emergency ingress/egress due to falling trees and/or flying debris. Inoperable infrastructure (wastewater system and pumps) due to loss of electricity. Loss of revenue due to threat of windstorm and/or damage to tribal facilities.
<b>Earthquake</b>	Injury or death to persons; damage to homes and tribal buildings and/or facilities. Damage to tribal infrastructure (roads and utility systems) due to ground displacement. Loss of revenue due to threat of structural damage to tribal facilities.

***Though not directly vulnerable to flood events that commonly occur in Skagit County, the Upper Skagit Indian Tribe could be inconvenienced by a severe flood event and expects a severe flood event would also cause a substantial loss of revenue from the Bow Hill Complex.***

**RISK ASSESSMENT UPDATE PROCESS, 2008**

Throughout the 2008 plan update process, the Upper Skagit Indian Tribe’s representative worked with the Skagit Natural Hazards Mitigation Planning Committee to:

1. Review the plan as well as the vulnerabilities, risks, and impacts to the Upper Skagit Indian Tribe related to the local natural hazards.
2. Determine what revisions/additions were needed to meet current conditions and needs.
3. Coordinate with URS (a consultant hired by FEMA Region X to assist local Tribes with updating their hazard mitigation plans) as well as the Skagit County Department of Emergency Management to facilitate the necessary updates to the plan.
4. Review and approve the updated documents pertaining to the Upper Skagit Indian Tribe’s portion of the plan.

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. An analysis of the risks and impacts to the Upper Skagit Indian Tribe related to the local natural hazards was developed using FEMA-supplied 20/20 mitigation software. A summary of these risks and impacts are shown on page 17 of this portion of the plan. The risk and impact analysis and scoring matrix is described on pages 1 & 2 of SECTION IV of this plan.

Population of Jurisdiction:	275 and growing slightly
Total Structure Value:	\$55.1 million
Estimated Size of Jurisdiction:	223 acres
Economic Characteristic:	Economically Disadvantaged

The Upper Skagit Indian Tribe has identified the following tribal facilities and their estimated value are at risk from the hazards identified.

<b>NATURAL HAZARD RISK ASSESSMENT INFORMATION</b>				
<b>Hazard</b>	<b>Residential Structures At Risk</b>	<b>Population At Risk</b>	<b>Non-residential Facilities At Risk</b>	<b>Estimated Value OF Facilities At Risk</b>
Earthquake	56	675	12	\$55,100,000
Windstorm	56	675	12	\$55,100,000
Ice Storm	56	275	10	\$25,100,000
Forest Fire	4	12	3	\$30,000,000

**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 Upper Skagit Indian Tribe’s people and property within Skagit County at the Helmick Road Reservation and Bow Hill Complex. 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 Upper Skagit Indian Tribe Community Representative worked with the Tribal government to develop a list of high-priority mitigation measures to be listed within the Tribe's portion of the plan. After the projects had been prioritized, information for each mitigation measure was collected to include: detailed project information, a project timeline, details of project funding, and details of project administration.

Mitigation measures were prioritized according to the criteria listed below:

1. Mitigation measures that provide for the greatest reduction in risk to members of the community and Tribal infrastructure.
2. Mitigation measures that have a positive cost/benefit analysis.
3. Mitigation measures that have broad-based public and/or Tribal Council approval.
4. Mitigation measures that utilize best-management practices.
5. Mitigation measures for which funding has already been secured.
6. Mitigation measures that qualify for alternate and/or matching funding.
7. Mitigation measures that are multi-jurisdictional and/or multi-agency in nature.

The Upper Skagit Indian Tribe Community Representative reviewed the current plans and ordinances identified on the following page and incorporated updated information into this jurisdiction specific mitigation strategy.

Since the Upper Skagit Indian Tribe 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 Comprehensive Land Use Plan, Land Use/Zone Code, Fire and Life Safety Code, and Building Code.

The mitigation planning process was integrated with other ongoing Tribal and FEMA planning efforts to include incorporating hazard profiles and mitigation actions into the Tribe's comprehensive planning process. Disaster response and recovery mechanisms are included in the Tribe's Comprehensive Emergency Management Plan.

As shown below, the Tribe currently supports pre-disaster and post-disaster hazard mitigation through existing regulations and plans. Tribal policies include implementing Fire and Life Safety Codes as well as the 2007 International Building Code also enhance the mitigation strategy.

The Upper Skagit Indian Tribe anticipates updating its Comprehensive Plan in 2012. As part of this update, the Tribe will further incorporate the mitigation strategy and other information contained in the plan (risk assessment information) into the Comprehensive Plan (as appropriate) and with approval of the Tribal Council. The process the Tribe will utilize for this action will be the established process used to update the Comprehensive Plan which includes public notification and input.

<b>LEGAL AND REGULATORY RESOURCES AVAILABLE FOR HAZARD MITIGATION</b>			
<b>Type of Mitigation</b>	<b>Regulatory Tool</b>	<b>Name/Type</b>	<b>Evaluation of Regulatory Tool on Hazard Mitigation</b>
Pre-Disaster Mitigation	Policies	Building Code (2007 I-Code)	The I-Code Code applies to Tribal structures. Structures built to code are less likely to be vulnerable to hazardous conditions, including windstorms, wild land fires, and other natural hazards. The Tribe issues building permits and conducts inspections as required by the Code.
		Comprehensive Plan	Establishes future development and land use mitigation measures to reduce risks to potential hazards.
		Zoning Ordinance	Designates allowable land uses and provides for control of site development parameters.
	Program	GIS	Capability to develop Hazard Identification and Vulnerability Assessment (HIVA)
Post-Disaster Mitigation	Plans	Comprehensive Emergency Management Plan	The CEMP provides both pre-and post disaster guidance associated with responding to an emergency

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.

<b>CURRENT AND POTENTIAL FINANCIAL RESOURCES FOR HAZARD MITIGATION</b>		
<b>Sources</b>	<b>Financial Resource</b>	<b>Effect on Hazard Mitigation</b>
Potential	Indian Community Development Block Grant Program	U.S. Housing and Urban Development provides critical housing and community development resources to aid disaster recovery.
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.

<b>CURRENT AND POTENTIAL FINANCIAL RESOURCES FOR HAZARD MITIGATION</b>		
<b>Sources</b>	<b>Financial Resource</b>	<b>Effect on Hazard Mitigation</b>
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 (in collaboration with local fire districts)	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 Upper Skagit Indian Tribe 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 Helmick Road Reservation and Bow Hill Complex. 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 were involved through area-wide invitations to participate in the planning update process. Notices of public meetings were advertised through notice of public meetings in newspapers.

### **MONITORING, EVALUATING, AND UPDATING**

The Tribe will use the Upper Skagit Indian Tribe's Community Representative to monitor, evaluate and update the HMP. In addition, other interested parties can participate in this process. The representative (currently Joe Hemmerich) will serve as the primary point of contact and will coordinate all local efforts to monitor, evaluate and revise the Tribe's portion of this HMP.

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

A report should be made available 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.

As stated earlier, the Upper Skagit Indian Tribe 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 Helmick Road Reservation and Bow Hill Complex. As stated in the Plan Maintenance portion of SECTION I of this plan, continued public involvement in the natural hazards mitigation process will be accomplished via the advertised public meeting held each year as part of the annual plan evaluation process.

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 re-adopted in the fifth year:

- Thoroughly analyze and update the Tribe's risk to 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 and/or other personnel assigned by the Tribal Council, will be responsible for monitoring mitigation project implementation and closeout. Mitigation project files and documents shall be incorporated into (and as part of) the HMP evaluation and update process. Project-specific reports will be included in the annual review report sent to Skagit County Department of Emergency Management for forwarding to the Washington State Mitigation Officer. In addition, project-specific reports will be made available to the community at the annual public meeting described earlier. Finally, The Tribal HMP representative will submit a closeout report to the Tribal Council for final approval at the conclusion of any mitigation project.

### **MITIGATION MEASURES**

**The following mitigation measures were proposed when the plan was originally developed in 2003:**

1. Seismic Retrofitting of Critical Facilities and Infrastructures.
  - A. This will be a long term (3 yrs. +) project.
  - B. Schedule will be dependant on grant funding.

*NO PROGRESS HAS BEEN MADE TOWARDS ACCOMPLISHING THIS MITIGATION MEASURE DUE TO LACK OF FUNDING. THE MEASURE REMAINS VALID AND HAS BEEN RE-AFFIRMED FOR THE 2008 – 2013 PLAN CYCLE.*

2. Emergency Electrical Power for Critical Facilities and Infrastructure Systems.
  - A. This will be a short term (1-3 yrs.) project.
  - B. Schedule will be dependant on grant funding.

*THIS MITIGATION MEASURE WAS INITIATED IN 2007 AND IS ON-GOING; COMPETITION IS CONTINGENT UPON FUTURE FUNDING. THIS MITIGATION MEASURE HAS BEEN RE-AFFIRMED FOR THE 2008 – 2013 PLAN CYCLE.*

### **Mitigation measures proposed for the 2008 – 2013 plan cycle:**

In addition to the multi-jurisdiction/multi-hazard mitigation action items listed in SECTION III of this plan (and the mitigation measures listed above) the Upper Skagit Indian Tribe proposes the mitigation measure listed below for the 2008 – 2013 plan cycle.

#### Background Information

In 2007, the Tribe (in partnership with Skagit County Public Works and the Bureau of Indian Affairs Branch of Roads) completed a High Priority Road Improvement Project on Helmick Road, the access road to the Helmick Road Reservation. As Helmick Road provides the only access to the Helmick Road Reservation, an alternative emergency egress route is needed to provide a means of escape in the event of a wildland/urban-interface fire or other hazard that might prevent the use of Helmick Road.

#### Proposed Mitigation Measures

1. Construct emergency egress route to provide an alternate means of escape from the Helmick Road Reservation.
  - A. This will be a short term (1-3 yrs.) project.
  - B. Schedule will be dependant on grant funding.

NOTE: All Tribal Mitigation Projects will be subordinate to the following:

- A. The Tribal Council will direct the implementation and set project priority.
- B. The Tribal Council will administer and assign appropriate department(s) to implement projects.
- C. The Tribal Council will secure project funding thru Federal and State grants as well as Tribal Capital Improvement funds.
- D. The Tribal Council will review cost benefit analysis of projects thru the funding application process.

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## Upper Skagit Indian Tribe 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>Drought</b>	3	1	1	2	2	4	<b>36</b>
<b>Earthquake</b>	4	3	3	2	3	4	<b>60</b>
<b>Flooding</b>	3	2	2	2	2	4	<b>44</b>
<b>High Winds</b>	3	2	3	2	3	4	<b>52</b>
<b>Infestation/Disease</b>	2	3	2	2	2	2	<b>22</b>
<b>Landslide/Erosion</b>	1	1	2	1	1	2	<b>12</b>
<b>Lightning</b>	2	1	2	1	2	2	<b>16</b>
<b>Storm Surge/Tsunami</b>	0	0	0	0	0	1	<b>0</b>
<b>Subsidence,expansive Soils</b>	1	1	1	1	1	2	<b>10</b>
<b>Urban Fire</b>	4	3	3	2	3	4	<b>60</b>
<b>Wildfire</b>	3	2	2	3	2	4	<b>48</b>
<b>Winter Storm</b>	4	2	2	2	3	4	<b>52</b>
<b>Volcanic Activity</b>	4	3	3	3	3	3	<b>48</b>

<b>Total Jurisdictional Risk Estimation Score:</b>	<b>460</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 Few damaged, many destroyed	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