

# UNINCORPORATED SKAGIT COUNTY

## Jurisdiction-Specific Vulnerability Assessment, Mitigation Goals and Strategies

The purpose of this section of the plan is to assess the vulnerability of unincorporated Skagit County in regards to the various natural hazards previously identified in SECTION II of this plan. In addition, broad mitigation goals are listed and mitigation strategies that are currently in place relating to these natural hazards as well as newly proposed mitigation strategies have been included in this section of the plan.

### **Determining Vulnerability – The Process:**

To complete the vulnerability assessment process, various county 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, Skagit County 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.

In addition, repetitive loss properties within unincorporated Skagit County were analyzed and considered in the plan development process but due to confidentiality reasons, specific information regarding these properties is not included in this plan.

Representatives from Skagit County 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 unincorporated Skagit County.

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

The analysis conducted by Skagit County staff was 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, and the impacts these neighborhoods have suffered in past disasters. Sources of information and data queried in this analysis included United States Census data, local tax records, local and national geographic information system data, Flood Insurance Rate Maps, hazard specific data, and other environmental and demographic facts. However, in some cases, sufficient authoritative or current information was not available. In these cases, the experience, knowledge and judgment of long-time residents of the area, informed stakeholders, and local officials representing Skagit County government were utilized to help make reasonable assumptions and approximations based on known facts and historical events.

Throughout this process, some information such as the number of structures and property values within various neighborhoods was readily available. However, other information such as the population of neighborhoods was not available due to the difficulty in correlating census blocks with neighborhood boundaries. In the case of determining neighborhood populations, estimations were made by Skagit County government staff based on the known population of the unincorporated area of Skagit County in relationship to the number of living structures located in the various neighborhoods. 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 such 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.

Skagit County 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. Skagit County government is also committed to continuing the mitigation planning process that has resulted in the development of this plan, and to the ongoing cooperation with other agencies, organizations, Indian tribes, and jurisdictions to make Skagit County more resistant to the damages and hardships that could otherwise be the result of future natural disasters.

### **Estimating the Value of County Infrastructure:**

Estimating the value of county-owned infrastructure and the various critical facilities owned by other jurisdictions (such as water treatment facilities) proved to be a difficult but worthwhile task in the development of this plan. While some of the information obtained is based on "best-guess" estimates, county officials now have a much more accurate picture of the value of government infrastructure within Skagit County and more specifically, the value of that government infrastructure located within the flood plain of the Skagit River.

In order to complete the county infrastructure value process, county staff considered:

- Critical facilities
- Buildings owned by Skagit County
- Skagit County owned transportation routes and bridges
- Municipal water treatment facilities that supply water to portions of unincorporated Skagit County
- Facilities and structures owned and/or operated by various special purpose districts including:
  1. Hospital Districts
  2. Public Utility Districts
  3. Fire Districts
  4. Dike Districts
  5. Drainage Districts
  6. Port Districts

In addition to estimating the value of local infrastructure, it was also important to determine the location of this infrastructure (especially critical facilities) relative to the floodplain of the Skagit River.

For security reasons, Skagit County has not listed individual facilities or the value of these individual facilities in this plan but has completed an inventory of all facilities and has considered these facilities in our planning and mitigation strategy development process.

**Estimated Value of County Infrastructure: \$1,712,208,500**  
(This figure does not include local schools.)

**Estimated Value of County Infrastructure Located in the Floodplain of the Skagit River: \$1,049,839,500**  
(This figure does not include local schools and Port of Skagit County Burlington Industrial Park property.)

The above-listed values are considered to be conservative. The actual replacement cost of county-owned infrastructure and critical facilities would most likely be much greater than the above-listed amounts in the event of a catastrophic disaster event.

### **Identifying Neighborhoods:**

Skagit County staff made the decision early in the planning process to attempt to streamline and simplify the vulnerability assessment process as much as possible. Consideration was given to the size of the county, the great variety of physical geography, the vast differences between the more densely populated western portion of the county in relationship to the sparsely populated mountainous eastern portion of the county, and the natural hazards that affect the different portions of the county.

After considering various options, it was decided to divide the unincorporated portion of Skagit County into four neighborhoods based upon the types of natural hazards these areas were most vulnerable to.

## Neighborhood #1

Neighborhood #1 (referred to as **"Fidalgo"** on the 20/20 Mitigation Software Forms) includes all portions of unincorporated Skagit County lying westerly of the Swinomish Channel including Fidalgo Island, Guemes Island, Cypress Island, and Sinclair Island.

This neighborhood is located out of the floodplain of the Skagit River and typically receives far less rainfall than the remainder of Skagit County and is therefore more susceptible to summer drought conditions and wildland-urban interface fires due to the high percentage of homes located in timbered interface areas. The shoreline areas of Neighborhood #1 are also vulnerable to storm surge and could be vulnerable to tsunami. This area of the county is also very vulnerable to high wind events and snow events originating in the arctic and traveling southerly through the Frazier Valley of British Columbia and across Whatcom County before striking the western portion of Skagit County.

According to records obtained from the Skagit county Assessor, there are 4,697 structures with an average market value of \$302,150 in the Fidalgo Neighborhood. An exact population figure for this neighborhood was not available. However, based upon the total population of unincorporated Skagit County (using 2000 Census data) and the number of structures located in this neighborhood compared to the number of structures located in other neighborhoods, county staff estimated that there are approximately 11,000 residents living in the Fidalgo Neighborhood.

## Neighborhood #2

Neighborhood #2 (referred to as **"Lower Elevation"** on the 20/20 Mitigation Software Forms) includes all portions of unincorporated Skagit County below 500 feet in elevation and lying westerly of Range 7 East, Willamette Meridian, and easterly of the Swinomish Channel.

The boundaries of this neighborhood follow the boundaries of the 100-year flood plain of the Skagit River. This portion of unincorporated Skagit County is highly vulnerable to the flood events of the Skagit River. Due to the soils typical of this area and the high percentage of the population and infrastructure located within the floodplain, this neighborhood is also highly vulnerable to damage caused by severe earthquakes.

According to records obtained from the Skagit county Assessor, there are 8,043 structures with an average market value of \$155,750 in the Lower Elevation Neighborhood. An exact population figure for this neighborhood was not available. However, based upon the total population of unincorporated Skagit County (using 2000 Census data) and the number of structures located in this neighborhood compared to the number of structures located in other neighborhoods, county staff estimated that there are approximately 18,850 residents living in the Lower Elevation Neighborhood.

### **Neighborhood #3**

Neighborhood #3 (referred to as “**Higher Elevation**” on the 20/20 Mitigation Software Forms) includes all portions of unincorporated Skagit County below 500 feet in elevation and lying easterly of Range 6 East, Willamette Meridian to the crest of the Cascades.

This neighborhood is located outside of the 100-year flood plain of the Skagit River. This portion of unincorporated Skagit County is sparsely populated but is more vulnerable to winter storms than Neighborhood #2 and can become isolated from the rest of the county during flood events due to limited access and water over roadways downriver.

According to records obtained from the Skagit county Assessor, there are 2,154 structures with an average market value of \$67,030 in the Higher Elevation Neighborhood. An exact population figure for this neighborhood was not available. However, based upon the total population of unincorporated Skagit County (using 2000 Census data) and the number of structures located in this neighborhood compared to the number of structures located in other neighborhoods, county staff estimated that there are approximately 5,080 residents living in the Upper Elevation Neighborhood.

### **Neighborhood #4**

Neighborhood #4 (referred to as “**Wildlands**” on the 20/20 Mitigation Software Forms) includes all portions of unincorporated Skagit County above 500 feet in elevation.

This neighborhood is located outside of the 100-year flood plain of the Skagit River. This portion of unincorporated Skagit County is sparsely populated and contains the majority of the industrial forest areas of Skagit County as well as forest and recreational lands owned by the State of Washington and the federal government.

According to records obtained from the Skagit county Assessor, there are 1,513 structures with an average market value of \$84,904 in the Wildlands Neighborhood. An exact population figure for this neighborhood was not available. However, based upon the total population of unincorporated Skagit County (using 2000 Census data) and the number of structures located in this neighborhood compared to the number of structures located in other neighborhoods, county staff estimated that there are approximately 3,540 residents living in the Wildlands Neighborhood.

### **Unincorporated Skagit County Additional Information:**

Contact Information: Mark Watkinson  
Skagit County Department of Emergency Management  
2911 East College Way, Suite B  
Mount Vernon, WA 98273  
Telephone: (360) 428-3250

Population of Jurisdiction: 38,475 (2000 Census) and growing slightly

Geographical Size: 1,735 square miles

Principal Economic Base: Agricultural

Economic Characteristic: Economically disadvantaged  
*\*Economically distressed as per the State*

Current Skagit County Hazard Mitigation Codes/Plans/Ordinances:

- Comprehensive Land Use Plan
- Adopted Land Use/Zoning Code
- Adopted Fire or Life Safety Code
- Adopted Building Code (1997 Uniform Building Code)
- Drainage Ordinance
- Flood Damage Prevention Ordinance
- Drainage Utility Ordinance
- Dike District Ordinance
- Drainage District Ordinance
- Sub-Flood Control Zone Ordinance
- Critical Areas Ordinance
- 1989 Skagit County Flood Management Plan (currently being updated)
- Participation in NFIP Program
- Participation in CRS Program (Current Rating: 6)