PLANNING AND PERMIT CENTER



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INTRODUCTION

Skagit County Government, in partnership with city governments as well as the Upper Skagit Indian Tribe and the Swinomish Indian Tribal Community located within Skagit County, has been an active participant in the process to develop the **Skagit County Natural Hazards Mitigation Plan.** Skagit County has been represented throughout the planning process by the Department of Emergency Management, the Planning & Permit Center, the Public Works Department, Information Services, Geographic Information Services (GIS) and the Assessor's Office.

These offices and departments have created an overall profile of unincorporated Skagit County based on size, population, growth trends, economic base and current/future predominant land uses. From this profile, Skagit County was segmented into 4 distinct "neighborhoods" based on geography, land use, and hazard risk elements that are specific to each. The use of these neighborhood profiles has allowed for the development of area-specific risk assessments and has thereby promoted efficient mitigation planning.

Unincorporated Skagit County, because of geographical, geological and topographical diversities, is subject to a wide variety of hazards. This document is intended to identify the types of hazards that pose a high degree of risk of occurrence, and the mitigation measures that are currently in place to reduce or mitigate loss to health, life, property, and the environment.

Skagit County has adopted the 1997 edition of the Uniform Codes (Building, Fire, Mechanical and Plumbing) through Ordinance 17064, effective July, 1998. The purpose of these codes is to provide minimum standards to safeguard life and limb, health, property and public welfare. In addition to the general standards for construction, the Building Code provides for geographically specific requirements for seismic design, high wind design and high snow load design.

Skagit County adopted the Flood Damage Prevention Ordinance as a part of the Unified Development Code, Section 14.34, Ordinance 17938, Skagit County Code, and effective July, 2000. The purpose of this ordinance is to protect life and health, minimize public money expenditure, minimize the need for rescue and relief associated with flooding, and minimize prolonged business interruption and to minimize damage to public facilities and utilities.

Skagit County adopted the Critical Areas Ordinance as a part of the Unified Development Code, Section 14.24, Ordinance 17938, Skagit County Code, effective July, 2000. Within this ordinance are requirements and restrictions relating to steep, unstable or otherwise hazardous slopes which could impact human safety during earthquakes, sliding and erosion. The purpose of this portion of the Critical Areas Ordinance is to safeguard citizens, property and resources through identification of hazardous areas, requirements for mitigation through engineered design and construction methods; and, when design and construction methods cannot reduce risks to acceptable levels, to prohibit building and construction.

Hazard type	Mitigation
FLOODING A significant portion of Skagit County is located within the 100 year floodplain. In addition, portions of the County are located within a designated floodway or are located in a coastal high-hazard V zone. Substantial losses due to flooding have occurred most recently as a result of the 1990 and 1995 flood events.	The Skagit County Countywide Planning Policies (CPPs) are the foundation of the County's Comprehensive Plan. The CPPs were most recently updated on June 15, 2000. Three CPPs directly address flood hazard reduction: Skagit County and Cities and Towns, in cooperation with appropriate local, state and Federal agencies, shall develop and implement flood hazard reduction programs, consistent with and supportive of the Corps Feasibility Study. (CPP 10.13) The Skagit River Floodway and the Skagit River Floodplain shall be regulated to protect human life, property and the public health and safety of the citizens of Skagit County; minimize the expenditure of public money; and maintain flood insurance eligibility while avoiding regulations which are unnecessary restrictive or difficult to administer. (CPP 10.14) Skagit County and Cities and Towns shall work together to provide ongoing public education about flooding in a coordinated and consistent program, and shall adopt a flood hazard reduction plan, that works together with the natural and beneficial functions of floodplains. (CPP 10.15) Under requirements of the state Growth Management Act, the Comprehensive Plan also identifies, designates, and protects wetlands, aquifer recharge areas, and frequently flooded areas. This is done through numerous education, incentive, and protection and conservation measures contained in Comprehensive Plan Chapter 13, the Environment Element Policy 13A-5.1 Frequently Flooded Areas (j) Undisturbed natural rivers, streams, lakes, wetlands, and floodplains shall be protected to avoid increases in flood elevations, to reduce flood damage, and to allow proper conveyance of flood flows.

Mitigation
Policy 13A-5.2 Frequently Flooded Areas (a) Low intensity land use activities such as agricultural, forestry, and recreational land uses should be encouraged in floodplain areas and other land uses in these areas should be discouraged."
(b) Land uses, densities, and development activities in the floodplain and coastal high hazard areas should be limited to protect public health, safety, and welfare, to minimize expenditure of public money and costly flood control projects, and to maintain hydrologic systems.
New construction and substantial improvements are required to be elevated so that finished floor height is 1 foot above the base flood elevation. (SCC 14.34.170)
Elevation certificates are required on all elevated buildings. Certificates are collected by office or field inspection staff and are kept in a maintained file at the Planning & Permit Center. (SCC14.34.140)
Agricultural buildings and private garages not elevated are required to be wet floodproofed. A professional engineer or registered architect is required to verify that there is low potential for damage from velocities, debris, and scouring as well as verifying adequate opening area to allow free passage of flood water. (SCC 14.34.170.4)
In all buildings, construction materials used below the base flood elevation must be resistant to damage by flood waters. (SCC 14.34.160)
Fill, for purposes of elevation, is prohibited except where proven by a professional engineer that the fill does not reduce flood storage, increase base flood elevations, reduce flood conveyance or prohibit natural flow. (SCC 14.34.140)

Hazard type	Mitigation
FLOODING Continued	In V zones, and in areas of shallow flooding where velocities exceed 5 fps and when located within 500 feet of the toe of a dike, buildings are required to be elevated on columns or piles. (SCC 14.34.190 & 14.34.180) Construction in a designated floodway is prohibited except where it can be demonstrated by a professional engineer that there is no rise in the floodway. The current FEMA no-rise procedure is the standard by which this must be demonstrated. (SCC 14.34.200) Through federal and state grants, a significant number of repetitive loss properties, in areas prone to flooding, have been purchased by the County and the buildings either demolished or removed.
EARTHQUAKE Skagit County is located in seismic zone 3 as determined by the Uniform Building Code. Damage and loss due to earthquake was experienced as recently as the 2001 Nisqually earthquake.	Skagit County Ordinance #17064. The 1997 Uniform Building Code, including its special provisions for seismic zones 3 and 4. All new buildings not meeting the strict prescriptive requirements of the UBC are required to have their structural elements designed by a professional engineer or registered architect. Such design is required to include seismic analysis of the building in addition to wind, gravity and other forces. Building permits are issued for repair of seismically damaged buildings, normally based on a site inspection by the field inspection staff. All repair construction must meet the current building code requirements for seismic design. In areas of the County with steep or unstable slopes, or with soil prone to liquefaction, geotechnical reports, prepared by a professional engineer, are required as part of a building permit application. Such reports must include an analysis of the effects of a seismic event.

Hazard type	Mitigation
HIGH WINDS Skagit County is located in a borderline high wind area. The design wind speed for Skagit County is 80 mph. Some portions of Skagit County are located in exposure B (1997 UBC) areas where some protection from winds is provided by forests and hills. Other portions of the County are in exposure C areas where there is little or no protection from high wind.	Skagit County Ordinance #17064. The 1997 Uniform Building Code. All new buildings not meeting the strict prescriptive requirements of the building code for adequate wall bracing, are required to have their structural elements designed by a professional engineer or registered architect utilizing the wind design requirements of the building code. The Skagit County Building Official renders decisions on which exposure group an individual property is located in.
Portions of Skagit County are prone to landslide due to steep slopes, soil erosion, fractured rock faces, etc. Landslides occur with some frequency during winter storms, resulting in temporary road closures.	1997 Uniform Building Code, including provisions for the requirement of setbacks from the top and bottom of slopes, Section 3314, appendix chapter 33. The Comprehensive Plan contains the following policies regarding geologically hazardous areas. Policy 13A-5.2: (c) Low land use densities and intensities or open space shall be preferred in geologically hazardous areas where this practice can provide site specific mitigation. (d) Land use regulations and practices for geologically hazardous areas shall be established so that development does not cause or exacerbate natural processes that endanger lives, property, infrastructure, and resources on or off site. Policy 13A-5.3 Geologically Hazardous Areas include erosion hazards, landslide hazards, mine hazards, volcanic hazards and seismic hazards
	Critical Areas Ordinance, Section 14.24, Ordinance #17938. This document sets forth review and mitigation standards for development within geologically hazardous areas. The hazardous areas include seismic hazards, soil liquefaction, volcanic hazards, landslide hazards and erosion hazards.