

CHAPTER 10 - Natural Environment

EXISTING CONDITIONS

The Natural Environment Element addresses the protection, conservation, preservation, and restoration of the natural resources the Bayview Ridge Subarea, including wetlands, fish and wildlife habitat, geologic hazard areas, and other critical areas.

The Bayview Ridge Subarea is situated on a topographic bench above the Skagit Valley floodplain, and the marine waters of Padilla Bay to the west. The natural landscape within the Bayview Ridge Subarea encompasses gently sloping terrain, steep hillsides, numerous wetlands, large stands of mature trees, and open fields. In past years, the Bayview Ridge Subarea has experienced a high level of growth associated with industrial development and residential development in and around the Skagit County Regional Airport and residential development. With that growth ~~has come~~ there has been a slow degradation of the natural environment. Generally, there has been a decrease in ~~the water quality of the~~ quantity of wetlands, and the amount of ~~and~~ native vegetation, opens space and populations and diversity of fish and wildlife species within the Subarea has also decreased as development has occurred.

Critical Areas. Skagit County identifies wetlands, aquifer recharge areas, frequently flooded hazard areas, geologically hazardous areas, and fish and wildlife habitat conservation areas as critical areas of the natural environment requiring conservation and protection. ~~Some of these areas, such as geologic hazards, aquifer recharge areas and flood hazard areas are critical because of the hazard they represent to public health and safety. Others, such as fish and wildlife habitats and wetlands are critical because of their public value.~~ While critical areas are present throughout the county, their identification and exact location are not always mapped or mapped accurately. ~~Critical areas may exist in the Subarea, some of which may not be currently identified.~~ The county will use critical area site assessments at the time of permit or development ~~authorization~~ application to confirm the presence, exact location and classification of critical areas.

Aquifer Recharge Areas. The Bayview Ridge Subarea does not contain identified aquifer recharge areas.

Flood Hazard Frequently Flooded Areas. Flooding is not a serious hazard in the Bayview Ridge Subarea. Most of the Subarea lies above the floodplains ~~for~~ of the Samish River to the north and the Skagit River to the east and south. The Subarea has ~~small areas of~~ identified as flood hazard areas. Higgins Slough flows through the southeastern tip of the Subarea, just north of SR 20 in the vicinity of Ovenell and Avon-Allen Roads. No-Name Slough and Joe Leary Slough lie outside of the Subarea to the west and north, respectively. These sloughs are in flood hazard areas of the Samish and Skagit Rivers.

Geologically Hazardous Areas Potential geologic hazards in the Bayview Ridge Subarea generally include landside hazards, erosion hazards and seismic hazards. Landslide hazard areas are generally limited to the eastern portions of the subarea. Those areas throughout the subarea with slopes in excess of 40% and a vertical relief greater than 10 feet may be at risk.

Although the subarea is primarily flat, erosion hazards may be present on slopes in excess of 30%, primarily in the eastern portion of the subarea. There are three soil types present within the subarea which are at moderate to high soil erosion risk on slopes less than 30%. These include the Fidalgo-Lithic Xerochrepts-Rock outcrop complex with slopes of 3 to 30%, Swinomish gravelly loam with slopes of 15 to 30% and Xerothents with slopes to 5%. According to the Soil Survey of Skagit County, the Fidalgo-Lithic Xerochrepts-Rock outcrop complex is isolated in a small area in the southwest portion of the Bayview Ridge Subarea. Swinomish gravelly loam is more prevalent in the area and is located in the eastern portion of the subarea. Xerothents soils are located throughout the central and eastern portion of the subarea.

As with all of Skagit County, the Bayview Ridge Subarea is at risk for seismic hazards. Seismic hazards for this area include development damage as a result of ground movement, slope failure, settlement and liquefaction. According to the Washington Department of Natural Resources Liquefaction Susceptibility Map, the Bayview Ridge Subarea is within an area of moderate to high liquefaction potential.

Although there is no known surficial expression of faults within the subarea, extrapolation of fault locations on geologic maps indicate that some pre-Holocene faulting may be present at depth. Regardless of the presence of faults within the boundaries of the Bayview Ridge Subarea, it is within a seismically active region and will be

subject to seismic hazards. Geotechnical analysis, building/foundation design and proper construction are essential to minimize damage resulting from seismic events.

~~— **Geologically Hazardous Areas.** Potential geologic hazards in the Bayview Ridge Subarea would include areas of erosion and landslide hazards. There are no known faults in the Subarea.~~

~~— Soils in the vicinity of the airport are mapped as Bow gravelly loam (0 to 3 percent slopes), which is subject to seasonal wetness due to a perched water table. Bellingham silt loam, a very poorly drained soil, is found in smaller depressional areas. The Subarea does not contain “prime farmland soils” as defined in the *Skagit County Comprehensive Plan*. Three soil types are prone to soil erosion hazards: 55 Fidalgo-Lithic Xerochrepts-Rock outcrop complex 3 to 30 percent slopes, 139 Swinomish gravelly loam 15 to 30 percent slopes, and 165 Xerorthents 0 to 5 percent slopes.~~

~~— The majority of the Subarea is flat to gently sloping. Steep slopes (0–30 percent) defining the bench above the floodplain form the eastern and northeastern edges of the Subarea. Skagit County considers slopes of 30 percent or greater to be potentially geologically hazardous. Floodplain areas are susceptible to liquefaction.~~

Wetlands. Wetlands are legally protected under the Federal Clean Water Act, the State Growth Management Act, State Water Pollution Control Act and Skagit County code regulations. Wetlands are areas identified by the presence of water during the growing season, hydric soils, and the presence of a plant community that is able to tolerate prolonged soil saturation. These areas provide many important environmental functions, including reducing the impact or frequency of flooding flood storage and attenuation, providing wildlife habitat, aquifer rechargerecharging aquifers, providing clean water filtration and sediment deposition to improve water quality for fish, other aquatic species and wildlife, and providing a visual buffer in the built landscape.

Numerous wetlands are scattered throughout Bayview Ridge Subarea (Figure 10), and are especially prevalent in the western and central portions of the Subarea. ~~— A total of 1,043 acres of wetlands and associated buffers are identified in the Bayview Ridge Subarea. Some wetlands in the Subarea are fragmented or isolated by existing development; others have been hydrologically modified by uncontrolled or poorly controlled stormwater runoff; or others support populations of primarily invasive or undesirable plants and animals.~~ vegetation.

The Port of Skagit County identified ~~694~~445 acres of wetlands and buffers/open space within their ~~1800-~~plus 30-acre ownership as part of the Skagit County WIN Wetland Management Plan (Skagit County Wetlands and Industry Negotiation). ~~Of the 694 acres, 250 acres are delineated as high functioning wetlands and 200 acres are identified as buffers. An additional 938 acres is identified as open space. The open space is located between and adjacent to the two runways.~~

~~— The WIN Program is a planning process that began in 1994 to identify and protect high functioning wetlands, and identify and impact, where necessary, lower functioning wetlands. This process has been completed for the Port ownership.~~

The 2006 Bayview Ridge Subarea Plan relied on ~~— Within the remainder of the Subarea, wetland identification is based on the National Wetland Inventory (NWI) and interpretations of aerial photography to estimate the amount of wetlands in the portion of the Subarea not on Port property, and therefore outside the WIN program. The twenty-year-old NWI data is not a reliable source for estimating the specific size and location of wetlands. Approximately 349 acres of wetlands and buffers have been identified in the Subarea outside of the Port ownership. The precise boundaries of these wetlands will be not known and would be delineated by project proponents as specific development projects are proposed.~~

Fish and Wildlife Habitat Conservation Areas: Fish and wildlife habitats conservation areas include areas with which endangered, threatened and sensitive species have a primary association, habitats and species of local importance, commercial and recreational shellfish areas, kelp and eelgrass beds, herring and smelt spawning areas, naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat, waters of the state, lakes, ponds, streams and rivers planted with game fish by a governmental or tribal entity and state natural area preserves and natural resourceresource conservation areas. ~~are often classified by watercourse or stream type and vegetation type.~~ Higgins Slough flows along the southeastern tip of the Subarea, just north of SR 20 in the vicinity of the Ovenell and Avon-Allen Roads. Higgins Slough is known habitat for Coho. The Washington State Department of Fish and Wildlife (WDFW) determined all ditches that exist on the Port of Skagit County ownership north of Ovenell Road (other than Higgins Slough) are “artificial watercourses.” See Appendix B for WDFW letter. ~~No other streams or~~

watercourses are known to exist within the Subarea. Vegetation within Bayview Ridge consists of large stands of evergreen and deciduous trees, pasture grass, wetland vegetation and residential landscaping.

While the amount and location of productive fish and wildlife habitat in the Bayview Ridge Subarea has been altered through the conversion of open lands to agricultural and urban uses, there remain areas retaining high habitat value. ~~Known fish and wildlife habitat conservation areas delineated by Skagit County within the study area are shown in Figure 11. These habitat areas include wetlands, Higgins Slough, and areas associated with Bald Eagles.~~ No other known state or federal sensitive, threatened or endangered species are documented by WDFW or Skagit County within the Subarea. Skagit County currently has no other designated Habitat Conservation ~~Areas within the study area~~ Bayview Ridge Subarea.

RELATIONSHIP TO OTHER PLANS

Countywide Planning Policies

Countywide Planning Policy 10 (GMA Goal 10) protects the environment and enhances the high quality of life, including air and water quality and the availability of water. Pertinent specific policies include:

- 10.1 Natural resource lands, including aquatic resource areas and critical areas shall be classified and designated, and regulations adopted to assure their long-term conservation. Land uses and developments that are incompatible with critical areas shall be prohibited except when impacts from such uses and developments can be mitigated.*
- 10.2 Land use decisions shall take into account the immediate and long range cumulative effects of proposed uses on the environment, both on and off-site.*
- 10.3 The County shall reduce the loss of critical aquatic and terrestrial habitat by minimizing habitat fragmentation.*
- 10.4 Wetlands, woodlands, watersheds and aquifers are essential components of the hydrologic system and shall be managed to protect surface and groundwater quality.*
- 7.7 Development shall be directed away from designated natural resource lands, aquatic resource areas and critical areas.*
- 10.9 Septic systems, disposal of dredge spoils and land excavation, filling and clearing activities shall not have an adverse significant affect on Skagit County waters with respect to public health, fisheries, aquifers, water quality, wetlands, wildlife habitat, natural marine ecology and aquatic based resources.*
- 10.11 -When evaluating and conditioning commercial, industrial or residential development, Skagit County shall consider threatened or endangered wildlife.*
- 10.12 Skagit County shall enter into inter-agency agreements with appropriate state and local agencies and Native American Tribes for compliance with watershed protection, including but not limited to, the cumulative effects of construction, logging and non-point pollution in watersheds.*

BAYVIEW RIDGE SUBAREA PLAN

The Bayview Ridge Subarea Plan provides for protection of the environment and enhancement of the area's quality of life while still permitting urban growth. Compliance with Skagit County's existing critical area regulations will allow urban growth with protection of the natural environment.

Additional measures can be taken, however, to provide opportunities for creating corridors which will benefit fish and wildlife habitat and the community. As wetlands are identified and delineated, wetland open space corridors consisting of wetlands and their vegetated buffers can be linked as open space and wildlife habitat corridors. These "critical areas" should be set aside as permanent open space, providing for a higher quality of life for the community while protecting the resource for future generations. Development on steep slopes or other geologically hazardous areas ~~are is~~ restricted by existing regulations, and providing another opportunity to permanently protect open space corridors for the benefit of both the community and fish and wildlife ~~habitat~~.

The slopes in the north and eastern sections of the Subarea are possible locations for these corridors. Landscape buffering of industrial properties in the western half of the Subarea can provide additional fish and wildlife habitat, and may allow corridors to link with No Name Slough, and ultimately, Padilla Bay to the west. Within the residential areas, natural and native vegetation should be ~~required~~encouraged for open space areas to provide visual buffers, increase water quality and stormwater runoff control, and to maintain wildlife habitat.

GOALS, OBJECTIVES, AND POLICIES

Goal 10A The critical areas and natural environment of the Bayview Ridge Subarea, which provide the opportunity to live, work and play in a healthy environment, should be maintained, protected and enhanced for the enjoyment and use of present and future generations.

Objective 10A-1 Protect and conserve all elements of the natural environment of the Bayview Ridge Subarea, including but not limited to wetlands, fish and wildlife habitat, native vegetation, and steep slopes by carefully managing growth and limiting development in sensitive ecosystems.

Policy 10A-1.1 All new development and substantial improvements to existing development shall comply with the Skagit County Critical Areas Ordinance and Comprehensive Plan with respect to the environment.

Policy 10A-1.2 Low impact development tools should be considered for implementation in sensitive environments. Tools include reducing the amount of impervious surface on each development site, minimizing soil disturbance and ~~erosion, erosion, and~~-discouraging vegetation removal during site development and construction.

Policy 10A-1.3 The use of native species in a natural setting should be required for all commercial and industrial landscape buffers.

Policy 10A-1.4 Naturally vegetated open space tracts should be required for future residential developments.

Policy 10A-1.5 Discourage the use of fertilizers and pesticides on lawns through awareness and education programs offering environmentally friendly, non-chemical alternatives.

Policy 10A-1.6 Require public and private golf courses to maintain their facilities in an environmentally sensitive manner. Chemicals, such as pesticides, herbicides, and fertilizers, should be applied in such a manner that they do not adversely impact the biological ~~functioning~~-functions of adjacent wetlands or downstream water bodies.

Objective 10A-2 Preserve, protect, and enhance wetlands contained within the Bayview Ridge Subarea and increase public education efforts regarding the function, value and importance of protecting wetlands.

Policy 10A-2.1 Encourage enhancement of wetland buffer areas through appropriate plantings of native vegetation.

Policy 10A-2.2 Require a detailed ~~inventory assessment~~ of wetlands on all properties proposed for development, including delineation and ~~categorization~~-classification of wetlands by a wetlands professional.

Policy 10A-2.3 Encourage restoration of wetlands that have been degraded as a result of previous developments within the Subarea.

Policy 10A-2.4 If it appears a development project will contribute runoff to a wetland, require the evaluation and mitigation of the potential impacts of stormwater runoff on wetlands,

Policy 10A-2.5 The County shall provide adequate enforcement and inspection services to protect wetlands during, and after, the development process, to assure compliance with County wetland regulations.

Objective 10A-3 Preserve the existing fish and wildlife species contained within the plan area and the natural habitats that support these species in a manner that is compatible with the Skagit Regional Airport.

Policy 10A-3.1 Cooperate with the Washington State Department of Fish and Wildlife to identify sites that contain snags, nesting and roosting sites for state or federally listed threatened or endangered bird populations.

Policy 10A-3.2 Establish buffer zones around identified critical habitats that are sized per Skagit County Critical Area Regulations and/or federal Endangered Species Act requirements.

Policy 10A-3.3 Promote backyard wildlife sanctuary programs and encourage the use of native vegetation and

other habitat features in residential landscaping.

Policy 10A-3.4 Cooperate with the Washington State Department of Fish and Wildlife to survey fish species, range and habitat within Higgins Slough and other downstream watercourses adjacent to the Bayview Ridge Subarea.

Policy 10A-3.5 Minimize open water areas that could attract water fowl and present a safety hazard to air traffic.

Objective 10A-4 Protect, preserve existing habitat corridors within the Bayview Ridge Subarea.

Policy 10A-4.1 Enhance wildlife movement through native vegetation corridors by minimizing fencing.

Policy 10A-4.2 Require all designated critical area buffers be reserved as open space through ~~native growth protection~~protected critical areas and link these areas when feasible through property acquisition.

Policy 10A-4.3 Require (or increase) penalties for native growth disturbance or removal within ~~native growth protection~~protected critical areas.

Policy 10A-4.4 Coordinate with the Port of Skagit County to ensure the continued maintenance, monitoring and management of their extensive wetlands, buffers, habitat, and open space in the public interest, while encouraging non-motorized public access to view the area through the accessible pedestrian pathway system.

Policy 10A-4.5 Coordinate with the Washington State Department of Fish and Wildlife to identify and protect any wildlife migration corridors.