

2 Community Setting

Whatcom County is situated between British Columbia on the north, Skagit County on the south, Puget Sound's Georgia Straits on the west, and the Cascade Mountain Range on the east.

2.1 Topography

Whatcom County is composed of 2,107 square miles of diverse landscape ranging from agricultural flat lands and foothills overlooking Puget Sound to Mount Baker rising to 10,778 feet in elevation. The county is approximately 25 miles in width (north to south) and 115 miles in length (east to west) with over 130 miles of saltwater shorelines and hundreds of lakes and streams.

Much of the county is mountainous and includes the Mt. Baker Snoqualmie National Forest and North Cascades National Park. There are two inhabited islands, Lummi and Eliza in Whatcom County.

A trip to Point Roberts, the county's most northerly community, requires a crossing through Canada. Interstate 5 provides a major transportation link to Vancouver BC, 60 miles north of Bellingham and 89 miles south to Seattle.



Figure 1: Locator Map

2.2 Climate

Whatcom County is located within the Puget Sound Lowlands, East Olympic-Cascade Foothills, and the Cascade Mountains West climatic regions. Major climatic influences include the sun and rain shadows created by the Olympic Mountain Range, and the winds created by temperature changes on Puget Sound and from the Fraser River Valley in British Columbia. Figure 2 provides Whatcom County average temperature and rainfall statistics. (County, 2014)



Figure 2: Whatcom County Climate Statistics

2.3 Wildlife Habitat

Whatcom County is a significant wildlife habitat due to varied climatic and physiographic characteristics, and because vast areas of the county are not devoted to intense urban land use.

The lower, wooded areas of the county provide habitat for significant birds including the bald eagle, ruffed grouse, California quail, and barn owl. The higher elevations and forests provide critical habitat for the goshawk and spotted owl. The lower, wooded, undeveloped areas of the county provide habitat for significant mammals including the black bear, cougar, and Columbia black tail deer. The higher elevations and forests provide critical habitat for the fisher/marten, wolverine, red fox, Roosevelt Elk, and mountain goat. The most remote regions of the Cascade crest have also seen the recent resurgence of the grizzly bear and gray wolf.

Much of western Whatcom County is located within the Western Hemlock zone. This zone is the most extensive vegetation zone in all of western Washington, extending from the Pacific coast to an elevation of about 2,500 feet, and characterized by a mild and generally wet climate.

The Washington State Department of Natural Resources' Natural Heritage Program has compiled a list of endangered, threatened and otherwise sensitive plant species in Washington State. Although these sensitive plant species have not yet been officially tracked by county, the Koma Kulshan Chapter of the Washington Native Plant Society has begun the process of compiling a list for Whatcom County. For a detailed list of Whatcom County threatened or endangered plant species go to:

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/whatcom.html>

(County, 2014)

Marine Environment

Urban development and forest practices along the shoreline can seriously impact the marine environment by increasing the amount of suspended solids, pollutants, or freshwater entering marine areas.

Bulkhead, dock, and other waterfront structures can reduce the natural shoreline and affect the rate of natural beach deposition resulting in loss of vegetation and loss of the shoreline and intertidal habitat that support herring, smelt, and other fish.



Figure 3: Intertidal Habitat

Some estuarine areas have been filled or drained in the past, especially around the developed waterfront. The remaining unaltered estuarine areas are protected by the Shoreline Management Act, which regulates further alterations.

In general, healthy intertidal and shallow sub-tidal environments provide for aquatic species including migratory fish such as Chinook and Coho salmon and Bull Trout. Deep sub-tidal environments provide habitat for marine mammals including the harbor seal, orca whale, grey whale and harbor porpoise.



Picture 5: Puget Sound Orca Whale Pod

The shorelines of the county are within the Pacific Migratory Flyway and provide habitat for wintering seabirds, migrating shorebirds, and many other bird species.

2.4 Land Use

The elevated middle and eastern portions of the county remain forested. Native species, however, have long since been clear-cut and replanted with Douglas fir and other commercial timber managed by the US Forest and National Park Services.

Significant portions of the middle part of the county, particularly the marshlands along the Nooksack River, have been modified by ditching and diking to support irrigated croplands and pastures.

Most lowlands were cleared of the extensive forests that once covered the land, particularly along the shoreline and alluvial plains which are now devoted to urban uses or non-irrigated croplands and pastures.

Counties, cities, and towns are required to comply with Washington State's Growth Management Act and must identify critical areas and adopt development regulations to protect them. Critical areas include wetlands, habitat conservation areas, and critical recharge areas for drinking water aquifers.

Development on Port property is subject to local land use development regulations from

Bellingham, Blaine, Sumas and Whatcom County.

In addition to complying with the locally developed Shoreline Master Programs, under the State's Shoreline Management Act and the State Environmental Policy Act, many uses require coordination with either the U.S. Army Corp of Engineers for Section 404 Permits for "in water" work or the Washington State Department of Ecology for 401 Water Quality certification permits or the Model Toxic Control Act for restrictions identified on sites under the Bellingham Bay Demonstration Pilot program.

The Bellingham Bay Demonstration Pilot program team was formed in 1996 and made up of, federal, state, tribal and local governments. The pilot team is co-managed by the Department of Ecology and Port of Bellingham, with Ecology as the lead agency for the pilot program. The pilot team is carrying out the strategy for 12 priority sites around the bay. These sites are mostly legacy sites of past industrial practices that preceded modern environmental laws. Soil, sediment and groundwater were contaminated by operations at the former Georgia-Pacific pulp and paper mill, at municipal landfills, wood treatment plants, shipyards and a coal gasification plant.

In other specific locations, uses may also need to comply with other special regulatory requirements and approvals such as with the Department of Natural Resources for sites in Harbor Areas of the State under a Port Management Agreement or with the Federal Aviation Administration for uses in proximity to the Bellingham International Airport.