

2. POPULATION, LAND USE, AND SHORELINE DEVELOPMENT IN THE NORTH OLYMPIC COAST STUDY AREA

Clallam County occupies a unique location at the northwest tip of the contiguous United States on the geographically remote Olympic Peninsula. County residents are occasionally reminded of the remoteness when the Hood Canal Bridge goes out or flooding cuts off the single highway that leads to the communities along the Strait of Juan de Fuca. The location and landscape have created diverse, linked communities of people, plant species, and wildlife. Within the space of a few miles are nearshore and alpine ecosystems, rivers and forests, and culturally distinct towns and settlements.

This chapter describes the general extent and types of existing land use and the magnitude of potential future shoreline development to provide context for ecological information contained in the chapters that follow. Understanding existing and future opportunities for human use and enjoyment of shorelines is an essential aspect of the Shoreline Master Program update.

2.1 Geographic Overview

For purposes of this report, the North Olympic Coast study area includes the northern portion of Clallam County draining to the Strait of Juan de Fuca. This area includes the north slope of the Olympic Mountains as well as the major population centers of Port Angeles, Sequim and the unincorporated Urban Growth Areas of Clallam Bay-Sekiu, Carlsborg, and Joyce. A majority of the County's 71,404 residents live in this portion of the County (slightly more than half in incorporated areas).

Along the North Olympic Coast are some major differences in existing and expected future land use. These differences have evolved in response to disparate patterns of human settlement; regional, national and global economic cycles; regulatory changes; and the availability and value of fisheries, forest products, and other natural resources. To address the geographic, ecological, and cultural diversity within the County, the North Olympic Coast study area can be considered in three planning areas--East, Middle and West (Figure 2-1).

2.1.1 East Planning Region

The East Planning Region extends from the Jefferson County line at Discovery Bay to the east edge of the Morse Creek watershed. This area encompasses a small portion of Discovery Bay, the Miller Peninsula, and Sequim Bay (all located in Water Resource Inventory 17), as well as portions of East WRIA 18 including Dungeness Spit and Green Point. The river systems that are large enough to be designated as shorelines of the state in this planning region are the Dungeness River and its major tributaries, McDonald Creek, and the upper reaches of the Little Quilcene River (which drains to Hood Canal through Jefferson County). Other important streams in this area include Eagle Creek (draining to Discovery Bay); Jimmycomelately, Dean and Johnson

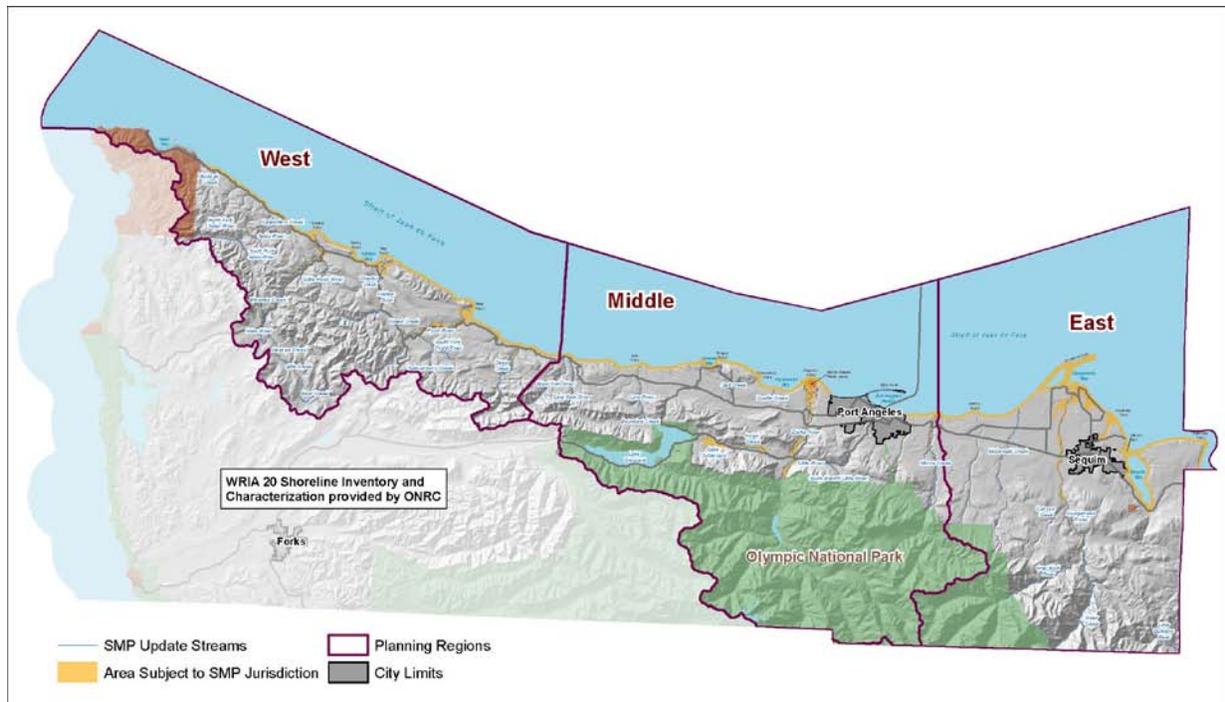


Figure 2-1. East, Middle and West planning regions in Clallam County

Creeks (Sequim Bay tributaries); and independent streams directly entering the Strait of Juan de Fuca including Siebert, Gierin, Cooper, Meadowbrook, and Cassalary Creeks.

The East Planning Region has only one incorporated area, the City of Sequim, and two designated Urban Growth Areas (UGAs), the Sequim UGA and the Carlsborg UGA. The Jamestown S’Klallam Tribe Reservation is located along Sequim Bay in the Blyn area and the Tribe has several commercial and administrative facilities on or near the marine shoreline. Most tribal members live outside of the reservation boundaries and tribal shoreline development is non-residential. Publicly owned shorelands in this region include the Sequim Bay State Park, Miller Peninsula State Park and the Dungeness National Recreation Area.

The only water-dependent commercial facility on the shoreline in this planning region is the John Wayne Marina located on Sequim Bay within the City of Sequim. Public access to the shorelines for recreation and enjoyment is available in many areas. Dungeness Spit and Dungeness Bay, the shoreline between Sequim Bay and Discovery Bay, and numerous parks and open spaces throughout the East Planning Region provide access to the water. County parks include the Dungeness Recreation Area, Panorama Vista, Marlyn Nelson, Dungeness Landing, Three Waters and Cline Spit. Other public lands also abut shorelines.

Residential use has become the most prevalent form of development. Agricultural uses are concentrated in the inland portions of the County, with only a small percent of the shorelines in agricultural production. Although this portion of the County has seen the largest population growth in recent years, there are still large portions of the shorelines that are undeveloped.

2.1.2 Middle Planning Region

The Middle Clallam County planning region includes the Strait of Juan de Fuca shorelines from and including the Morse Creek watershed on the east to the Twin Rivers watershed on the west; the City of Port Angeles and the Lower Elwha Klallam Tribe Reservation are located in this region. Shorelines of the state in this region are the Strait of Juan de Fuca, Lake Sutherland, the Elwha River, Colville Creek, Salt Creek, the Lyre River, and the East and West Twin Rivers. Removal of the Elwha River dams from 2011 to 2014 is expected to dramatically affect the river environment downstream of the dam and at the delta. Among other changes, dam removal is expected to create substantial shifts in sediment loading and transport along the lower river and marine shorelines.

Residential development along the shoreline occurs primarily in eastern portions of this region, particularly at the mouth of Morse Creek, Freshwater Bay and bluff areas near the Elwha River. West of Freshwater Bay shoreline land use is predominately public and private commercial timber management. Lake Sutherland is heavily developed with single family residential homes. Public access to shorelines in the middle region is available at Salt Creek and Striped Peak recreation areas near Tongue Point, Freshwater Bay and areas along the Elwha River. There is also a public boat launch at Lake Sutherland (maintained by the Washington Department of Fish and Wildlife). Steep erodible banks preclude public access to public lands in several areas. Private campgrounds are operated at Whiskey Creek, Crescent Beach and the Lyre River.

2.1.3 The West Planning Region

The West Planning Region extends from the eastern boundary of the Makah Tribal Reservation to the Deep Creek watershed. In addition to the marine shorelines along the Strait of Juan de Fuca, shorelines of the state in this area include Deep Creek, the Pysht River, Clallam River, the Hoko and Sekiu Rivers, and Bullman Creek.

Land use in the west planning region is predominately commercial forest. With the exception of the Clallam Bay/Sekiu UGA, most of the marine shoreline is undeveloped. Additional pockets of moderate to high density residential development are located at Bullman Beach and the Hoko River estuary. Water-dependent commercial facilities include several private resorts. Highway 112 is located within the SMP jurisdiction in several locations.

The Clallam Bay shoreline is the most heavily developed area of the western planning region and several water-dependent commercial facilities are located along the shoreline. There are two marina breakwaters and several docks supporting these facilities.

Public access to the shoreline in this region is generally limited to informal access along State Highway 112, Pillar Point County Park, and the Clallam Bay/Sekiu area. Private access is available from resort areas. Although there are substantial public forest lands along the marine shorelines, most of the area is not accessible by land. Washington State Parks has recently acquired land in the Hoko River estuary and additional public access is possible in the future.

2.2 Population

The total population in Clallam County (including WRIA 20) increased by 10.7 percent from 2000 to 2010, as compared to the 14.2 percent overall population increase for Washington State.

Population growth in the unincorporated areas of Clallam County was only slightly lower at 9.19 percent for the same time period, while growth in the incorporated areas has varied widely (OFM 2011). Population growth in the eastern portion of the County (Sequim and Sequim UGA) has been much higher than other portions of the County (Table 2-1).

Table 2-1. Clallam County Population Growth by Region

Area	Total Population in 2000	Total Population in 2010 ¹	Percent Growth
Total County	64,525	71,404	10.7%
Unincorporated County	38,674	42,228	9.2%
East Planning Region			
Sequim	4,334	6,606	52.4%
Sequim UGA	5,923	6,364 ¹	7.4%
Carlsborg UGA	806	828 ¹	2.7%
Middle Planning Region			
Port Angeles	18,397	19,038	3.5%
Port Angeles UGA	21,080	21,610 ¹	2.5%
Joyce UGA	58	581	0
West Planning Region			
Clallam Bay-Sekiu UGA ²	462	435	-5.8%

Source: Washington State OFM, Census 2010 Redistricting Data for Washington, 2011.

¹ Population estimates for the county UGAs is not yet available from the 2010 census. For the purposes of this report, the OFM population estimates for 2006 were used.

² The Clallam Bay-Sekiu UGA population obtained from OFM does not include the prison population at the Clallam Bay Correction Facility.

The County used a 20-year planning period for comprehensive planning and based its plans on the population estimates from the Washington State Office of Financial Management (OFM). The population of Clallam County over the planning period is expected to increase by 10,000 to 12,000 people by 2025 (Clallam County, 2007b). The 2007 State population estimate for Clallam County was 68,500 persons (OFM, 2007). According to the Urban Growth Areas Analysis and 10-Year Review (“UGA Report”), growth trends support using the State growth management 2000 – 2025 High Series Population Forecast (OFM, 2002) for Clallam County of 86,927 persons. Based on this forecast, the County needs to plan for approximately 18,427 new people between 2007 and 2025. Most of this population increase is anticipated to occur within Central and Eastern Clallam County.

2.3 Existing Land Use and Zoning

The three planning regions vary in terms of the types of land use that occur adjacent to river, lakes and marine shorelines (Figures 2-2 and 2-3; note that timber extends beyond top of graph). Residential uses are a significant component of the east planning region while timber is the

dominant use in the middle and west regions. Agriculture comprises a modest percentage of the land use on the marine shore (mostly in the east planning region), but there is relatively little agricultural use occurring along freshwater shorelines in Clallam County. Commercial, industrial, and port-related land uses are even less common adjacent to County shorelines and are mostly limited to marinas, fishing resorts, campgrounds and other recreation-related enterprises.

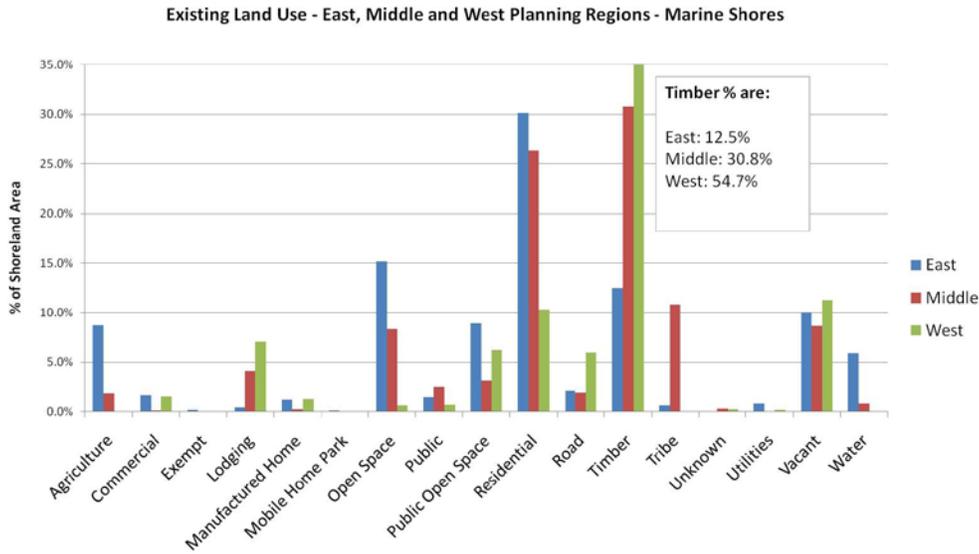


Figure 2-2. Existing land use as a percent of the marine shoreland area

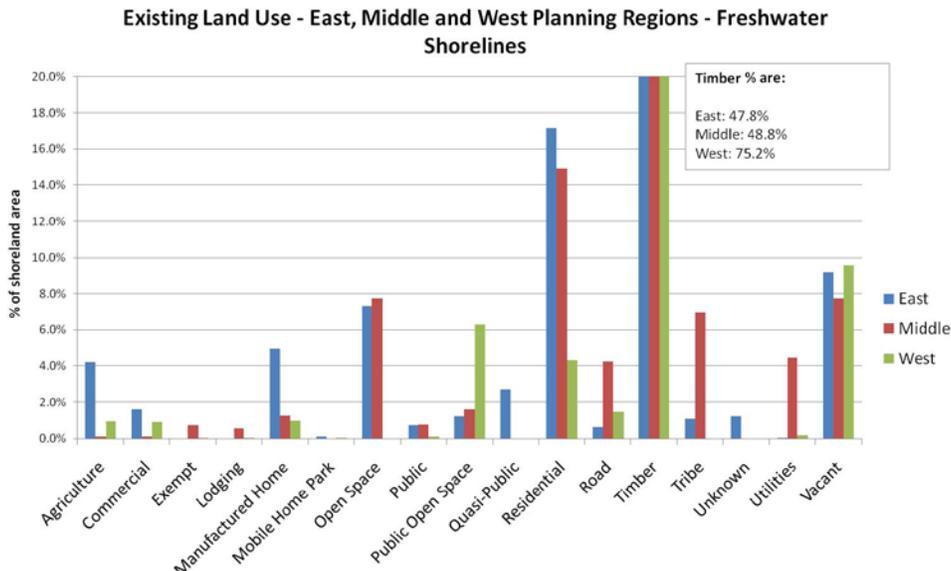


Figure 2-3. Existing land use as a percent of the freshwater shoreland area

Existing land use is fairly consistent with the current zoning, which is heavily weighted toward residential uses on all types of shorelines (river, lake and marine) in all three regions (Figure 2-4 and 2-5; note that timber extends off the top of the graph). Commercial forestry is the second

most prevalent shoreline zoning designating, accounting for as much as 66 percent of the marine and 40 percent of the freshwater shoreline area in the west alone.

These land use and zoning patterns suggest that, compared to other types of land use, residential uses and forest practices have the greatest potential to impact the future health and quality of the shoreline environment. Residential development is regulated as a priority use under the Shoreline Management Act, but forest practices are mostly governed by a different set of rules (known the Forest Practices Act, RCW 76.09); therefore residential uses are a major focus of this analysis and of the SMP update in general.

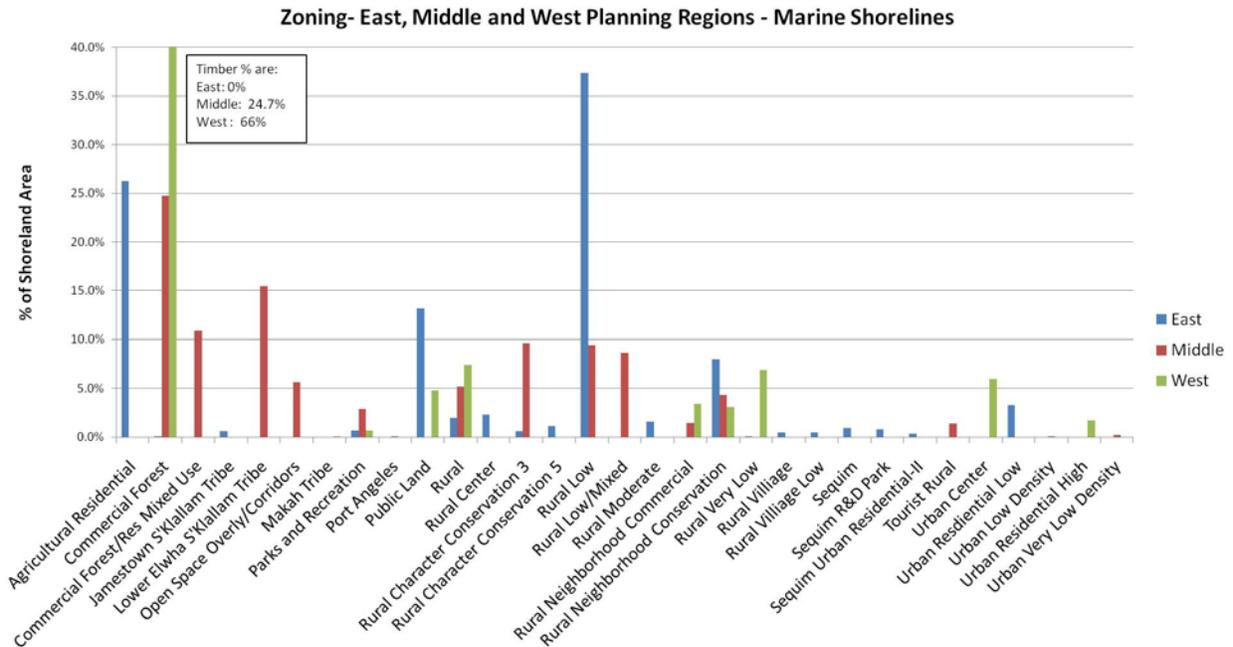


Figure 2-4. Percent of the marine shoreland area in each zoning category

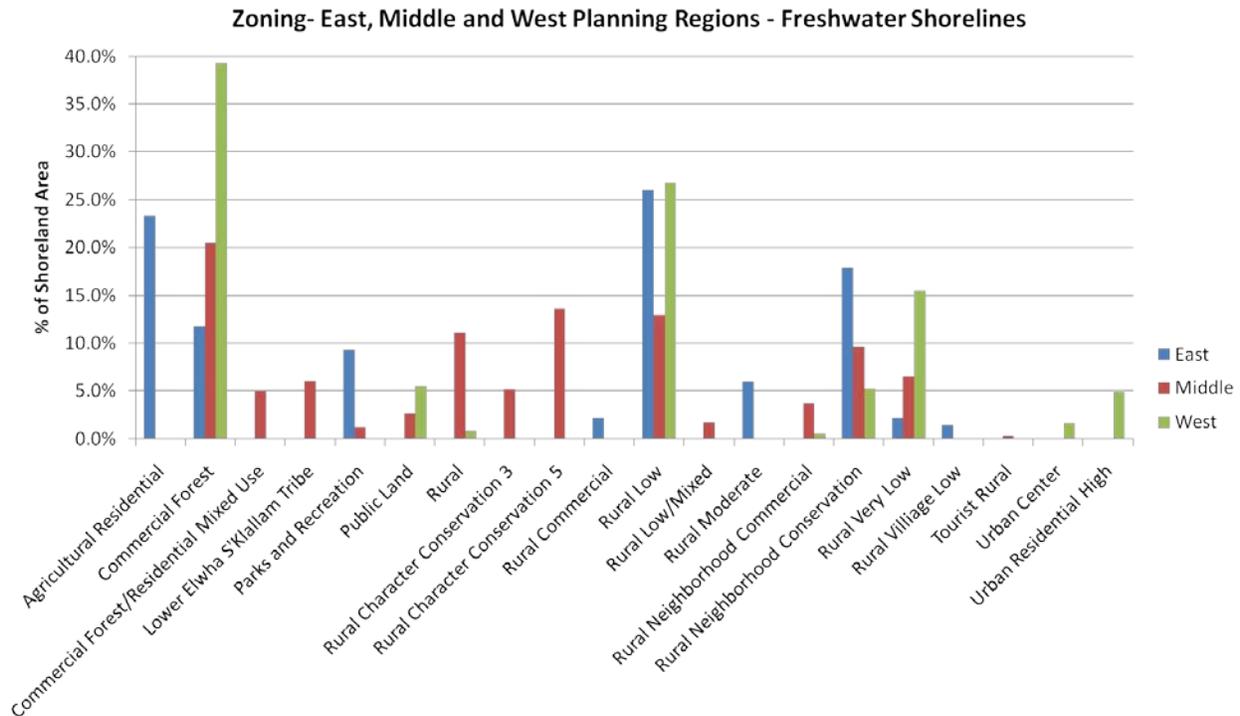


Figure 2-5. Percent of the freshwater shoreland area in each zoning category

2.4 Future Development Potential in SMP Jurisdiction

There are approximately 2,700 individual parcels of land that directly adjoin shorelines of the state in Clallam County (excluding WRIA 20). To understand the effect that residential and other types of land use could have on shoreline conditions, it is important to consider the future build out potential of the lands within the jurisdiction of the County’s shoreline master program. Future development potential for the planning regions is shown in the following tables. These are rough estimates based on assessors’ data.

These development potential data allow for a general comparison of the relative development potential of different areas of the County but are not a parcel-specific prediction of future development. There are many factors that can affect the development potential of a given parcel or area of the County including infrastructure availability, presence of critical areas, ability to meet on-site septic system requirements, lot configuration, etc. In addition, development intensity and type are controlled by County zoning regulations. For example, a parcel within an R1 zone (one dwelling per one acre) can be developed more intensively than a parcel in an R5 zone (one dwelling per five acres). On many parcels, the property boundaries include areas both within and outside of the shoreline jurisdiction. Therefore, future development on such lots could also occur near, but outside the SMP jurisdiction.

Private parcels that are zoned for commercial forestry are technically developable and can be subdivided, but most of this land is less likely to be developed in the relatively near future than non commercial forest lands. Therefore, commercial forest-zoned lands are not considered as “potentially developable” in the tables below. That said, these lands would be subject to ongoing

timber harvest and related forest practices (e.g., road building, etc). Most residential development on lands zoned for commercial forestry would require a conditional use permit and the newly created lots would have to be at least 80 acres. Other uses such as wood manufacturing are also allowed on these lands to support forestry uses.

2.4.1 Marine Shorelines

A substantial portion of the land within SMP jurisdiction along the Strait of Juan de Fuca is vacant or “underdeveloped” (meaning the parcel is partially developed, such as with one dwelling, but zoning regulations would allow parcel subdivision and additional development). These lands include both subdividable and non subdividable parcels and are likely to be developed in the future (Table 2-2).

Table 2-2. Potentially Developable Lands within SMP Jurisdiction along the Marine Shoreline (excluding WRIA 20)

Planning Region	Total Area Within SMP Jurisdiction (acres)	Potentially Developable Lands (acres)	Percent (%) Developable Lands
East	2,538	760	30%
Middle	866	146	17%
West	971	264	27%

In both the east and west planning regions, approximately one-third of the land area along the marine shoreline is vacant or underdeveloped, and could be more intensively developed. In the middle planning region a smaller but still significant portion (17%) of the land area along the marine shoreline is vacant or underdeveloped.

2.4.1 Freshwater Shorelines

As with lands along the Strait of Juan de Fuca marine shore, lands along Clallam County freshwater shorelines have potential for new subdivision and development (Table 2-3). The amount of developable lands increases from the east to the west planning regions from 12 to 45 percent.

Table 2-3. Potentially Developable Lands within SMP Jurisdiction along Freshwater Shorelines (excluding WRIA 20)

Planning Region	Total Area Within SMP Jurisdiction (acres)	Potentially Developable Lands (acres)	Percent (%) Developable Lands
East	3,601	434	12%
Middle	4,049	981	24%
West	6,814	3,073	45%