

SECTION 3

CRITICAL AREAS & RESOURCE LANDS

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3.1 INTRODUCTION

This section of the Comprehensive Plan has been prepared in accordance with the Growth Management Act (GMA) to address conservation of critical areas and resource lands. Resource lands include agriculture, aquaculture, forest, and mineral resource activities. Critical areas are defined as one, or a combination of wetlands, critical aquifer recharge, frequently flooded, geologically hazardous, and fish and wildlife conservation areas. The GMA contains the following goal for natural resource industries: "Maintain and enhance nature resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses" (RCW 36.70A.020). The GMA further requires all local governments planning under RCW 36.70A.060 to identify critical areas and resource lands, and to adopt development regulations precluding land uses or development that are incompatible.

The Shoreline Management Act of 1971 (Chapter 90.58 RCW) requires county and municipal jurisdictions to prepare Master Plans with guidelines as to permitted uses and activities for aquatic

areas and upland areas adjacent to shorelines of statewide significance. It is the intent of this Comprehensive Plan to recommend goals and policies that are consistent with the Shoreline Master Programs of the County and its municipalities.

Similarly, the Voluntary Stewardship Program (VSP) was established in 2011 as part of the Growth Management Act as an alternative to county regulations for critical areas on agricultural lands (RCW 33.70A.705). Counties participating in VSP create a work plan that is approved by the Washington State Conservation Commission and then implement the plan by recruiting local landowners to participate in incentive-based stewardship activities. The VSP is not a new set of regulations but relies on voluntary action of participants. Upon adoption by Pacific County of the VSP Workplan in 2017, all agricultural activities in Pacific County are exempt from the county's critical area regulations. All other local, state, and federal regulations concerning agricultural activities remain in effect. Notwithstanding, the goals and policies of this Comprehensive Plan are consistent with the Pacific County Voluntary Stewardship Program objective of maintaining and enhancing the ecosystem health and functions of critical areas and reducing the conversion of farmland to other uses.¹

The purpose of this element is to carry forward the intent of the Pacific County Critical Areas and Resource Lands Ordinances No. 180 and 180A. The ordinance provides guidelines for the identification, designation and classification of these lands and establishes regulations for their protection. By providing substantive policies and criteria that can be considered during the review of a development proposal, this element assures there is a tool not only to meet the requirements of the GMA, but also to maintain these valuable resources that help define the quality of life in Pacific County. It is not the intent, however, to require existing uses to be subjected to these policies unless a change in land use is proposed in the form of a development application.

3.2 GENERAL POLICY STATEMENT

It is a policy of Pacific County that the beneficial functions, and structure, and values of critical areas and resource lands be protected as identified herein and in Pacific County Critical Areas and Resource Lands Ordinances No. 180 and 180A, supported by the Shoreline Management Program Ordinance 183 and Voluntary Stewardship Program. In addition, potential dangers or public costs associated with inappropriate use of such areas be minimized by reasonable regulation of uses within, adjacent to, or directly affecting such areas. Reasonable regulation shall be achieved by the balancing of individual and collective interests.

All proposed critical areas alterations should include mitigation sufficient to maintain the functional values of the critical area or to prevent risk from a critical area hazard and shall give adequate consideration to the economically reasonable use of the property. Mitigation of one critical area impact should not result in unmitigated impacts to another critical area. Mitigation may include, but is not limited to: buffers, setbacks, limits on clearing and grading, best

¹ See Department of Ecology description of the Voluntary Stewardship program and Pacific County VSP program description.

management practices for erosion control and maintenance of water quality, or other conditions appropriate to avoid or mitigate identified adverse impacts.

3.3 REVIEW PROCEDURES

No alteration of critical areas and resource lands as defined or designated by the Ordinance should occur in the absence of express approval by Pacific County. Any alteration of any critical areas and resource lands as defined or designated by this Ordinance should occur only through the issuance of a development permit. For any critical areas or resource lands alteration not requiring any other land development permit, such alteration should not proceed in the absence of approval of a critical areas alteration permit issued under the Pacific County Critical Areas and Resource Lands Ordinances No. 180 and 180A.

In dealing with all of the critical areas and resource lands contained in this element, review procedures should be established through appropriate development ordinances, which allow for consideration of the goals, policies and implementation criteria established herein. This process is defined in the Critical Areas and Resource Lands Ordinances No. 180 and 180A, and is summarized below.

1. The Administrator first must determine whether the proposed activity fits within any of the exemptions to the Critical Areas and Resource Lands Ordinance No 180. If the proposed activity meets any of the listed exemptions, no critical areas and resource land review is required.
2. If the proposed activity is not exempt, then a person seeking a development permit, shall complete a critical areas and resource lands checklist on the forms to be provided by the Department of Community Development. Staff will then review the checklist together with the maps and other critical areas resources identified in the relevant sections of the Critical Areas and Resource Lands Ordinance and make a site visitation to determine whether critical areas, resource lands, or their required buffers are affected by the proposed activity. The person seeking to develop is responsible for providing the County with sufficient information so that the Administrator can make this determination.
3. If the checklist, approved maps, other references, site visitation and other information supplied by a person seeking a development permit, do not indicate the presence of any critical areas or resource lands associated with the project, the review required pursuant to the Critical Areas and Resource Lands Ordinance is complete.
4. If at any time prior to completion of the applicable public input process on the proposed project, the Administrator receives new evidence that critical areas or resource lands may be associated with the proposed project, the Administrator may reopen the critical areas and resource lands review process pursuant to the Critical Areas and Resource Lands Ordinance and may require the requisite level of critical areas and resource lands review and mitigation as is required by the Critical Areas and Resource Lands Ordinance. Once

the public input process on the associated permit or approval is completed and the record is closed, then the County's determination regarding critical areas and resource lands pursuant to the Critical Areas and Resource Lands Ordinance shall be final, unless appealed as described in the Critical Areas and Resource Lands Ordinance No. 180.

5. If the checklist, approved maps, site visitation, and other references indicate that critical areas or resource lands are associated with the proposed project area, then a critical areas and resource lands assessment shall be completed.
6. If, as a result of the critical areas and resource lands assessment recommendations, a person believes that he or she is entitled to a variance from one or more of the requirements of the Critical Areas and Resource Lands Ordinance, then a person may request a variance as described in Procedures for Processing Land Use Development Applications Ordinance No. 177.
7. If, as a result of the critical areas and resource lands assessment recommendations, a person believes that the requirements of the Critical Areas and Resource Lands Ordinance, including any request for a variance, leave the applicant with no economically reasonable use of his property, then a person may apply for a reasonable use exception pursuant to the Procedures for Processing Land Use Development Applications Ordinance No. 177.

The review process utilizes reference maps indicating areas containing potential critical areas or resource lands. It is recognized that the reference maps mentioned above may be subject to change throughout the planning period.

3.4 PROTECTION STANDARDS, LAND USE, AND NOTIFICATION

3.4.1 PROTECTION STANDARDS

The Critical Areas and Resource Lands Ordinances No. 180 and 180A may identify specific protection standards, including buffers, setbacks, and mitigation, for critical areas and resource lands.

3.4.2 LAND USE

The Critical Areas and Resource Lands Ordinances No. 180 and 180A may identify specific land use restrictions or requirements, including requirements for primary use, accessory use, and incidental use for critical areas and resource lands.

3.4.3 NOTIFICATIONS

The Critical Areas and Resource Lands Ordinances No. 180 and 180A may require that notification be placed on property title and/or land division documents within an area identified as critical areas and resource lands. Such notification shall be as specified in the Critical Areas and Resource

Lands Ordinances No. 180 and 180A.

3.5 AGRICULTURAL RESOURCES

3.5.1 AGRICULTURE IN PACIFIC COUNTY

Although Pacific County is not often noted as a farming county, local agriculture does account for over five percent of the county's land use. The county's farm products range from hay to cranberries to shellfish, and include numerous beef and dairy products. The county also has a diversity of farm types. They include larger-scale commercial farms, historic family farms, and part-time farming operations.

The 2017 Census of Agriculture by the United States Department of Agriculture identifies 346 farms in Pacific County covering 52,365 acres. In 1992, the census counted 248 farms and total farmland in the county of 32,637 acres. In 1997, 253 farms were counted and acreage increased to 40,228 acres. In 2007, 390 farms on approximately 61,749 acres were counted. Acreage and number of farms decreased by 2012 and remained relatively stable through the 2017 census. Overall acreage continues to be deployed largely for livestock pasture, cranberry production, and shellfish aquaculture.

Per USDA Census data, the market value of all agricultural products sold in Pacific County in 1992 was \$12.7 million, increasing to \$16.9 million dollars in 1997 and again to \$34.9 million in 2007. Despite the smaller number of farms and reduced acreage, the market value of all agricultural products increased in 2012 and again in 2017. Table 3-1 summarizes this data.

Table 3-1
USDA Census of Agriculture for Pacific County

Pacific County	1992	1997	2007	2012	2017
Number of Farms	248	253	390	330	346
Farmland acres	32,637	40,228	61,749	52,157	52,365
Market Value of Products²	\$12.7M	\$16.9M	\$34.9M	\$36.8M	\$38.9M

3.5.2 IDENTIFYING AND CLASSIFYING AGRICULTURE LANDS

Section 17 of the GMA (RCW 36.70A.170) requires counties to identify agricultural lands of long-term commercial significance. RCW 36.70A.030(3) defines agricultural land as “land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production.”

² As reported in the census year; not inflation adjusted.

WAC 365-190-050 enumerates a three-part test for designating agricultural land of long-term commercial significance. First, the land is not already characterized by urban growth. Second, the land is used or capable of being used for agricultural production. This factor evaluates whether lands are well suited to agricultural uses based primarily on their physical and geographic characteristics. Third, the land has long-term commercial significance for agriculture based on several applicable criteria:

- Classification of prime and unique soils as mapped by the Natural Resources Conservation Services;
- Availability of public facilities, including roads;
- Tax status;
- Availability of public services;
- Relationship or proximity to urban growth areas and to markets and suppliers;
- Predominant parcel size;
- Land use settlement patterns and their compatibility with agricultural practices;
- Intensity of nearby land uses;
- History of land development permits issued nearby; and
- Land values under alternative uses.

Agricultural land in Pacific County is classified as follows:

- (1) "agricultural land of long-term commercial significance" and includes all land that is devoted to the production of aquaculture, cranberries, and/or other bog related crops; and
- (2) "agricultural land of local importance" as any diked tideland involved in existing and ongoing agricultural activities as of the adoption date of Ordinance No. 147 (historical reference, now rescinded and amended to Ordinance No. 180) and containing the soil types listed in Table 3-2 as defined in the "Soil Survey of Grays Harbor County Area, Pacific County, and Wahkiakum County, Washington, 1986, Soil Conservation Service, USDA".

Table 3-2
Agricultural Land of Local Importance Soil Types

SCS Map Unit	Soil Series	SCS Map Unit	Soils Series
104	Ocosta silty clay loam	147	Seastrand variant muck

3.5.3 MAPS AND REFERENCES

Agricultural lands are identified on the Pacific County Comprehensive Land Use Map as Rural Agriculture while they are designated as Agriculture on the zoning maps. Shellfish areas are not mapped on the Pacific County Comprehensive Land Use Map, rather their location is identified in

the text of Pacific County Ordinance No. 184, Zoning.

3.5.4 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as agriculture lands of long-term commercial significance:

- Soil types;
- Parcel size;
- Local and regional economic conditions and market trends;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, both short- and long-term and including cumulative impacts;
- Impact of proposed activity on commercial agricultural structure of area;
- Impacts of proposed activity to public rights-of-way; and
- Suitability to accommodate on-site wastewater disposal and domestic water supply facilities.

3.6 FOREST RESOURCES

3.6.1 FOREST RESOURCES IN WASHINGTON STATE

Forest lands are a paramount economic resource for the State of Washington. This valuable resource must be conserved and protected to ensure sustained and healthy production of timber and forest products. It is the State's policy to encourage forestry and restocking of forests (RCW 84.33.010). It is through proper forestry management that environmental benefits will be enhanced in the areas of water quality, air quality, reduction of soil erosion, lessening of storm and flood damage, protection of valuable wildlife habitats, and the provision of scenic and recreational spaces.

3.6.2 FOREST RESOURCES IN PACIFIC COUNTY

Forestry production activities have had a long history in Pacific County evolving from the timber "mining" days of the late 19th and early 20th centuries to the sustained yield forestry management that occurs today. Approximately 65 percent of the county's land area is managed for long-term forestry production. Of this land, approximately 85 percent is private commercial timberland, and 15 percent is Department of Natural Resources (DNR) managed land. There are no federally owned forest resource lands within the county. In addition to timber and timber by-products, a variety of other economic products are harvested from forests in Pacific County including salal, ferns, and moss for the floral industry and mushrooms for a growing food market.

3.6.3 IDENTIFYING AND CLASSIFYING FOREST LANDS

The GMA specifies that forest lands of long-term commercial significance be designated as such, and directs counties to use the land-capability classification system of the United States Department of Agriculture Natural Resources Conservation Service as defined in relevant Field Office Technical Guides. These eight classes are incorporated by the United States Department of Agriculture into published soil surveys and are based on the growing capacity, productivity and soil composition of the land, and in consideration of the land's proximity to population areas, and the possibility of more intense uses of the land.³ Commerce recommends that classification of forest lands be based, among other criteria, on the private forest land grades of the Department of Revenue (WAC 458-40-530) and further recommends that each county determine which land grades constitute forest land of long-term commercial significance based on local and regional physical, biological, economic, and land use considerations.

Forest land in Pacific County is identified as land that is not already characterized by urban growth and that is significant for the commercial production of timber and forest products. Forest lands are further classified as either of Long-Term Commercial Significance or as Transitional Forest Land.

3.6.4 MAPS AND REFERENCES

Forest land areas shall be field located based on applicable criteria and available datasets, which may include aerial drone and other visualization and measurement technologies.

3.6.5 MAJOR ISSUES

Forestry activities can have a major impact on adjacent land uses and the general environment. The use of chemicals may pose a public health threat and logging practices may cause erosion and adversely impact water quality. The amended RCW 7.48.305 states that forest practices undertaken in conformity with all applicable laws and established prior to surrounding non-forestry uses, are presumed to not constitute a nuisance unless the activity has a substantial adverse effect on the public health and safety. However, forestry operations do need to minimize the potential impacts. Policies in this element try to strike a balance between forestry management and other activities and environmental concerns.

3.6.6 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as forest lands:

³ WAC 365-190-050 concerning agricultural resource lands

- Potential of land to support forest growth;
- Parcel size;
- Local and regional economic conditions and market trends;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impact of proposed activity on commercial forest structure of area;
- Impacts of proposed activity on public rights-of-way; and
- suitability to accommodate on-site wastewater disposal and domestic water facilities.

3.7 MINERAL RESOURCES

3.7.1 MINERAL LANDS IN PACIFIC COUNTY

The mineral lands in Pacific County consist primarily of sand and gravel mining operations. These operations are important from the standpoint of providing vitally needed construction materials. Residential, commercial, and industrial construction, in addition to road construction and repair, depend on a stable, low-cost source of gravel. In addition, beach sand is readily available along much of the county's Pacific coastline. Beach sand is used as general site fill and is important for agricultural purposes. Conservation of these resources must be assured through measures designed to prevent incompatible development in or adjacent to resource lands.

3.7.2 IDENTIFYING AND CLASSIFYING MINERAL LANDS

The Growth Management Act (RCW 36.70A.170) states that "...each county...shall designate where appropriate...mineral resource lands that are not already characterized by urban growth and that have long-term significance for the extraction of minerals." The GMA defines "minerals" as gravel, sand, and valuable metallic substances. Other minerals may be designated as appropriate. In addition, the GMA directs Commerce to provide guidelines to counties for how to classify and identify resource lands of long-term commercial significance. Mineral lands in Pacific County are identified as land that has long-term significance for the extraction of minerals. Mineral lands are further classified as any area in Pacific County presently covered under a valid Washington State Department of Natural Resources (DNR) surface mining permit and any beach area where sand is removed for commercial purposes. Any other area shall be classified as mineral land when a surface mining permit is granted by the DNR.

3.7.3 MAPS AND REFERENCES

Mineral land areas shall be field located based on applicable criteria.

3.7.4 MAJOR ISSUES

Mining operations are often considered poor neighbors and nuisance claims against operators are

common. To assure the long-term use of these resources, residential and other incompatible uses should be prevented from locating adjacent to these deposits. Because of this potential conflict, mineral extraction sites are primarily located in rural areas. While this will serve to lessen the impact on neighboring land uses, the movement of large amounts of mineral resources necessitates good roads capable of handling significant numbers of heavily loaded trucks. Loaded trucks en route from the extraction site may lose a very small but potentially hazardous portion of their load, and track dirt or mud onto public roadways. Therefore, better prevention of such mining impacts on county residents is also needed.

Just as sand and gravel is a natural resource, so too is surface and ground water. Mining operations should minimize adverse impacts on the environment, and specifically, should minimize its effect on surface and ground waters. Restoration of mining sites is a crucial element of such protection measures. Existing, non-operating or abandoned mining sites pose a concern because they may leave aquifers vulnerably exposed, and invite illegal waste dumping.

3.7.5 BEACH SAND REMOVAL

The mining of beach sand is an activity that needs to be managed in a manner that facilitates a “win-win” situation. If managed properly, beach sand mining activities can help maintain public access to the beaches on the County beach approaches while at the same time provide a useful resource for development activities. However, indiscriminate mining of beach sand can produce deleterious consequences by exacerbating dune erosion and flooding. Consequently, the mining of beach sand is regulated through a permitting process that minimizes adverse effects on adjacent landowners, helps to ensure illegal trespass does not occur during mining activities, and monitors the placement of the mined sand to ensure indiscriminate wetland fills are not occurring.

3.7.6 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as mineral lands:

- Type and extent of mineral deposits;
- Proposed reclamation plan;
- Parcel size;
- Local and regional economic conditions and market trends;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity on public rights-of-way; and
- suitability to accommodate on-site wastewater disposal and domestic water facilities.

3.8 WETLANDS

3.8.1 WETLANDS IN PACIFIC COUNTY

Wetlands are transitional areas between upland and aquatic environments where water is present long enough to form distinct soils and where specialized "water loving" plants can grow. Wetlands include marshy areas along shorelines, inland swamps, and seasonal watercourses. Wetlands are typified by a water table that usually is at or near the surface, and there may be standing water all or part of the year. Soils that are present in wetlands are known as "hydric soils". Certain plant species, including trees, shrubs, grasses, sedges, rushes, and other grass-like plants have adapted to the low oxygen content of wetland soils. These plants are known as "hydrophytes".

Another distinguishing characteristic of wetlands, in addition to soil type and types of plants present, is the wetness of the soil, or "hydrology" (i.e., how often is the soil saturated or flooded with water and how long does it last?) Indicators of wetland hydrology may include drainage patterns, sediment deposition, watermarks, stream gauge data, flood predictions, historic data, visual observation of saturated soils, or flooded soils. Many wetlands in Pacific County are influenced by tides and most of the wetland plants found are tolerant of the brackish water that results from the mixing of salt water and fresh water.

In their natural state, wetlands perform functions, which are impossible or difficult and costly to replace. Wetlands provide erosion and sediment control; the extensive root systems of wetland vegetation stabilize streambanks, floodplains, and shorelines. Wetlands improve water quality by decreasing the velocity of water flow, resulting in the physical interception and filtering of waterborne sediments, excess nutrients, heavy metals, and other pollutants. Wetlands also provide food and shelter, essential breeding, spawning, nesting and wintering habitats for fish and wildlife, including migratory birds, anadromous fish, and other species.

3.8.2 IDENTIFYING AND CLASSIFYING WETLANDS

Pacific County has adopted the Washington State Department of Ecology Manual titled "Washington State Wetland Rating System for Western Washington," most recently published in 2014 and effective in January 2015. as the official wetland delineation manual for purposes of Ordinance 180 and 180A.

If Pacific County has reason to believe that a wetland may exist on a parcel which is the subject of a development application or within one hundred (100) feet of the parcel, a written determination regarding the existence or nonexistence of wetlands must be submitted to the Department of Community Development.

If it is determined that wetlands exist, a wetland delineation must be obtained when an activity regulated under the Pacific County Critical Areas and Resource Lands Ordinances No. 180 and 180A is proposed within three hundred (300) feet of the boundary of a wetland. Requirements for wetland delineations are specified in the Pacific County Critical Areas and Resource Lands

Ordinances No. 180 and 180A.

Pacific County only accepts written determinations and delineations prepared by the U.S. Army Corps of Engineers, the Washington State Department of Ecology, the Natural Resources Conservation Service, or a qualified critical areas professional as to whether wetlands exist on or within three hundred (300) feet of a specific parcel.

Wetlands shall be classified in Category I, Category II, Category III and Category IV according to the “Washington State Wetland Rating System for Western Washington” (October 2014 – Effective January 2015; Ecology Publication number 14-06-029 or as revised and approved by Ecology). Wetlands are defined in Section 4.C of Pacific County Ordinance 180, Critical Areas and Resource Land.

3.8.3 MAPS AND REFERENCES

The following references may provide an indication of wetland locations. However, these and other similar resources were not prepared at a level of detail sufficient to accurately portray the exact location and extent of wetlands in Pacific County, and cannot be used in place of an on-site field determination of wetlands. Many wetlands in Pacific County will not appear on these resources.

- National Wetland Inventory.
- Natural Resources Conservation Service (NRCS) soils map for Pacific County, specifically the hydric soils designations.
- Washington Coastal Atlas and other maps provided as resources for the Wetland Rating System.

3.8.4 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as wetlands:

- Wetland classification;
- Proposed mitigation, restoration, creation, or enhancement;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity to public rights-of-way; and
- Suitability to accommodate on-site wastewater disposal and domestic water supply facilities.

3.9 AQUIFER RECHARGE AREAS

3.9.1 AQUIFER RECHARGE AREAS IN PACIFIC COUNTY

As precipitation reaches the earth it can do several things: become part of a snow pack, enter into lakes, streams, rivers, oceans, or wetlands, seep into the soil to be taken up by plant roots, or filter into the ground and become groundwater. The land surface where this filtering process takes place is called an aquifer recharge zone. Aquifer recharge zones warrant special protection from surface pollution to protect the quality of the groundwater in the area. As groundwater moves through the ground it may discharge to surface water features, such as lakes, streams, or rivers, which will in turn recharge the groundwater. The water that remains in the ground makes up the aquifer. Groundwater sometimes flows underground to other locations. Where this is the case, pollution emanating from one area may contaminate the groundwater in another area. Groundwater pollution is very difficult, and often impossible, to clean.

The primary drainage basin in Pacific County is the Willapa Bay basin. Its tributaries, which enter Willapa Bay, drain an area approximately 900 square miles in size. Most of this area is within Pacific County although small areas of Grays Harbor, Lewis, and Wahkiakum County are also tributary to the basin. Three major stream drainages enter Willapa Bay. These are the North River (including Smith Creek), Willapa River and the Naselle River. Lesser streams entering Willapa Bay are the Cedar, Bone, Niawiakum, Palix, Nemah, and Bear Rivers.

Portions of the Long Beach Peninsula and the Tokeland/North Cove/Grayland area drain into Willapa Bay by means of ditches and small streams. The effective functioning of these ditches, streams, and drainages are extremely important in maintaining the effective hydrology for these areas.

Willapa Bay is designated as a Class A surface water according to the Water Quality Standards for the State of Washington (WAC 173-201A). Class A waters are of excellent quality and are to be maintained as such. While characteristic uses for Class A waters include commerce and navigation, to maintain water quality, future development must consider point source discharges, non-point source discharges, and erosion.

Not all of Pacific County is drained by the tributaries of Willapa Bay. Portions of the coastal area drain to the Pacific Ocean. The southeastern portion of the County drains to Grays River and Deep River, both tributaries of the Columbia River. The southwestern portion of the County drains to the Chinook River and the Wallicut River, both of which drain into Baker Bay and the Columbia River. The east central portion of the County drains to the Chehalis River.

Pacific County conducts annual groundwater sampling throughout the Long Beach Peninsula testing for Nitrates, Chlorides, pH level, temperature, and Dissolved Oxygen in order to detect any potential contaminants and to determine whether the freshwater drinking supply on the Peninsula is threatened by saltwater intrusion.

3.9.2 IDENTIFYING AND CLASSIFYING AQUIFER RECHARGE AREAS

Aquifer Recharge Areas in Pacific County are identified as any land within Pacific County that contains the soil types listed in Table 3-3 as defined in the "Soil Survey of Grays Harbor County Area, Pacific County, and Wahkiakum County, Washington, July 1986, Soil Conservation Service, USDA".

Table 3-3
Aquifer Recharge Area Soil Types

SCS Map Unit	Soil Series	SCS Map Unit	Soils Series
8	Beaches	133	Seastrand variant muck
35	Dune land	147	Urdorthents, level
92	Netarts fine sand, 3-12 percent slope	153	Westport fine sand, 3-10 percent slope
108	Orcas peat	162	Yaquina loamy fine sand
132	Seastrand mucky peat		

3.9.3 MAPS AND REFERENCES

Aquifer Recharge areas shall be field-located based on applicable maps and other criteria, possibly also including aerial drone or other visualization technologies that are available.

3.9.4 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as an Aquifer Recharge Area:

- Potential impacts to groundwater quality;
- Proposed groundwater protection and monitoring plan;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity to public rights-of-way; and
- Suitability to accommodate on-site wastewater disposal and domestic water supply facilities.

3.10 FREQUENTLY FLOODED AREAS

3.10.1 FREQUENTLY FLOODED AREAS IN PACIFIC COUNTY

The Federal Emergency Management Agency (FEMA) has defined the extent of the 100-year floodplain in order to establish actuarial flood insurance rates and to assist communities in efforts to promote sound floodplain management. Most river systems within Pacific County are included in the 100-year floodplain. Rivers are dynamic systems, and flooding is a normal occurrence. The proximity of the county's rivers to the Pacific Ocean compounds the problem as many are tidally influenced. Large areas of the Long Beach peninsula are also included in the 100-year floodplain.

To limit damage to individuals, property, and natural systems, Pacific County requires compliance with the provisions of the Flood Damage Prevention Ordinance No. 176 and the Shoreline Master Program. The Pacific County Flood Control Zone District No. 1 Ordinance Numbers 1, 2 and 3, which pertain to land alteration and drainage, also apply to the Long Beach Peninsula. The intent of these regulations is to promote an efficient use of land and water resources by allocating frequently flooded areas to the uses for which they are best suited. It is also important and necessary to discourage obstructions to floodways, as well as to prohibit uses that pollute or deteriorate natural waters and watercourses. The ordinances are administered through the permitting process for building and development.

3.10.2 IDENTIFYING AND CLASSIFYING FREQUENTLY FLOODED AREAS

Frequently flooded areas within Pacific County are identified and classified using the following criteria:

1. Frequently flooded areas shall be those floodways and associated floodplains designated by the Federal Emergency Management Act (FEMA) flood hazard classifications as delineated on the area flood hazard maps for Pacific County dated May 18, 2015, or as subsequently revised by FEMA, as being within the 100-year floodplain, or those floodways and associated floodplains delineated by a comprehensive flood hazard management plan adopted by the Pacific County Board of County Commissioners, as being within the 100-year floodplain or having experienced historic flooding. In case of conflict between FEMA flood hazard maps and the comprehensive flood hazard management plan designations, the more restrictive designation shall apply.
2. If an area of interest is not included in a comprehensive flood hazard management plan adopted by the Board of County Commissioners, and the County Engineer believes that the FEMA flood hazard maps do not correctly delineate the 100-year floodplain, the County Engineer may delineate the 100-year floodplain based on documented historic flooding of the area. If such documentation is not adequate to allow the County Engineer to make such delineation, the person seeking development which is covered under the Pacific County Critical Areas and Resource Lands Ordinance shall provide a flood hazard study prepared by a qualified critical area professional assessing the extent of the 100-year

floodplain, which shall be subject to approval by the County Engineer.

3.10.3 MAPS AND REFERENCES

The following references may provide an indication of frequently flooded area locations. However, these and other similar resources may not be prepared at a level of detail sufficient to accurately portray the exact location and extent of frequently flooded areas in Pacific County, and cannot be used in place of an on-site field determination. Many frequently flooded areas in Pacific County will not appear on these resources.

1. Federal Emergency Management Agency Flood Hazard Maps, May 18, 2015.
2. Comprehensive Flood Hazard Management Plans prepared for specific drainage basins and adopted by the Pacific County Board of County Commissioners.
3. Frequently Flooded Area maps prepared by the County Engineer.

3.10.4 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

All development within designated frequently flooded areas shall be in compliance with Pacific County's Flood Damage Prevention Ordinance No. 176, and the Shoreline Management Master Program, as now or hereafter amended. Development within the limits of the Pacific County Flood Control Zone District No. 1 shall also be consistent with any Land Alteration and Drainage requirements enacted by ordinance.

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as a frequently flooded area:

- Availability of public facilities and services, including access to the proposed activity;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity to public rights-of-way.

3.11 GEOLOGICALLY HAZARDOUS AREAS

3.11.1 GEOLOGICALLY HAZARDOUS AREAS IN PACIFIC COUNTY

Geologically hazardous areas are defined as "areas that, because of their susceptibility to erosion, sliding, earthquake or other geologic events, are not suited to the siting of commercial, residential or industrial development consistent with public health or safety concerns".⁴ When development

⁴ Per Ordinance No. 180, Section 2, Definition 2.31

is sited within these areas, there is a potential threat to the health and safety of citizens. In some cases, the risk to development from geological hazards can be reduced or mitigated to acceptable levels by engineering design or modified construction practices. However, when the risks cannot be sufficiently mitigated, development needs to be prohibited.

To better understand the particular aspects of the different types of geologic hazards, the following summary descriptions are provided.

Erosion Hazard Areas

Erosion is a common occurrence in Pacific County due to hydrologic and geologic characteristics, vegetative conditions, wind and human land use. By minimizing the negative impacts of human land use on these areas, the damage to the natural environment as well as to human-built systems is reduced. A major problem in Pacific County is erosion of shoreline areas. Such erosion is caused by tidal force and wave action, as well as by construction activity.

Landslide Hazard Areas (Steep Slopes)

Landslide hazard areas are those areas within Pacific County that are subject to potential slope failure. The characteristics of landslide hazard areas include slopes of 15 percent or greater that are underlain by weak, fine grained unconsolidated sediments, jointed or bedded bedrock, or landslide deposits, including the top and toe of such areas. It is necessary to protect the public from damage due to development on, or adjacent to, landslides; preserve the scenic quality and natural character of Pacific County's hillsides; and to protect water quality.

Seismic Hazard Areas

Seismic hazard areas are associated with active fault areas and earthquakes. While earthquakes cannot be eliminated, there have been no areas of Pacific County which have been specifically identified to pose significant, predictable hazards to life and property resulting from the associated ground shaking, differential settlement, and/or soil liquefaction.

Mine Hazard Areas

Mine hazard areas are defined as "... those areas within one hundred (100) horizontal feet of a mine or hydrocarbon production well opening at the surface and any workings, tunnels, shafts, or spoils disposal sites"⁵ Mine hazards may also include steep and unstable slopes created by open mines. Any open mining is required to have both an approved erosion control plan and an approved reclamation plan that will address steep and unstable slopes.

3.11.2 IDENTIFYING AND CLASSIFYING GEOLOGICALLY HAZARDOUS AREAS

Geologically hazardous areas in Pacific County are identified as follows:

Erosion Hazard Areas

Erosion hazard areas are those areas meeting any of the following criteria:

⁵ Ordinance No. 180, Section 8.B.3

1. Areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service Official Soil Survey Data, dated September 2015 or as amended, as having a "severe" or "very severe" erosion hazard based on slope and soil erosion factor K.
2. Coastal Erosion Hazard Areas
 - a. Areas mapped as Coastal High Hazard Areas (Zones V and VE) in the digital Flood Insurance Rate Map (dFIRM) adopted May 18, 2015, as amended.
 - b. Areas within the North Cove "Wash-Away" Beach Erosion Hazard Area, defined as that area within a distance from the ordinary high water mark that is less than or equal to the amount of land that is expected to erode within the next thirty (30) years, as determined by the Administrator (see Ordinance 180 Exhibit A). The landward boundary of this area shall be reviewed by the County every five (5) years and revised as necessary.

Landslide Hazard Areas

Landslide hazard areas are those areas meeting any of the following criteria:

1. Areas of historic failure, such as areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published as the United States Geological Survey or Department of Natural Resources Division of Geology and Earth Resources;
2. Those areas mapped by the Washington State Department of Natural Resources (slope stability mapping) as unstable (U or class 3), unstable old slides (UOS or class 4), or unstable recent slides (URS or class 5).
3. Any area with all of the following:
 - a. a slope greater than 15%;
 - b. hillsides intersection geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - c. springs or groundwater seepage.
4. Slopes that are parallel or sub-parallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
5. Slopes having gradients greater than 80% subject to rockfall during seismic shaking;
6. Areas potentially unstable as a result of rapid stream incision and streambank erosion;
7. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
8. Any area with a slope of forty percent (40%) or steeper and with a vertical relief of ten (10) or more feet except areas composed of solid rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten (10) feet of vertical relief.

Seismic Hazard Areas

Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, debris flows, or tsunamis. Seismic hazard areas are those areas meeting any of the following criteria:

- a. Areas mapped by the Washington Department of Natural Resources on the Site Class Map of Pacific County, Washington, Palmer et al., 2004, as amended, as having a site class of “D to E,” “E,” or “F.” These areas have been identified by WDNR as having soils that amplify ground shaking.
- b. Areas mapped by the Washington Department of Natural Resources on the Liquefaction Susceptibility Map of Pacific County, Washington, Palmer et al., 2004, as having a liquefaction susceptibility of “moderate,” “moderate to high,” “high,” or “peat deposit.”

Mine Hazard Areas

See definition above.

Tsunami Hazard Areas

Tsunami hazard areas are shoreline or coastal areas susceptible to flooding and inundation as the result of excessive wave runup action derived from seismic or other geologic events, as mapped by the best and most current available information. The Washington Department of Natural Resources completed mapping of tsunami hazard areas for Pacific County as modeled using an L1 scenario⁶. These maps are included in tsunami evacuation brochures for six areas in Pacific County: North Cove, Tokeland, and Shoalwater Tribe; Bay Center and Vicinity; Ocean Park and Vicinity; Long Beach and Ilwaco; Chinook and Vicinity; and Raymond and South Bend. The brochures were updated in 2014 and 2018 and are available through the Washington Department of Natural Resources and the Pacific County Emergency Management Agency.⁷

3.11.3 MAPS AND REFERENCES

The following references may provide an indication of geologic hazard area locations. However, these and other similar resources may not be prepared at a level of detail sufficient to accurately portray the exact location and extent of hazard areas in Pacific County, and cannot be used in place of an on-site field determination. Many geologic hazard areas in Pacific County will not appear on these resources.

⁶ Witter, R.C., Z. Yinglong, W. Kelin, G.R. Priest, C. Goldfinger, L.L. Stimely, J.T. English, and P.A. Ferro. 2011. Simulating tsunami inundation at Bandon, Coos County, Oregon, using hypothetical Cascadia and Alaska earthquake scenarios. Oregon Department of Geology and Mineral Industries Special Paper, 43: 57 p.

⁷ Eungard, D. W.; Forson, Corina; Walsh, T. J.; Gica, Edison; Arcas, Diego, 2018, Tsunami hazard maps of southwest Washington—Model results from a ~2,500-year Cascadia subduction zone earthquake scenario: Washington Geological Survey Map Series 2018-01, 4 sheets, scale 1:48,000, 11 p. text.

1. Erosion Hazard Areas: The approximate location and extent of erosion hazard areas is displayed in the Soil Survey of Grays Harbor County Area, Pacific County, and Wahkiakum County, Washington, 1986, Soil Conservation Service, USDA, and on erosion hazard zone maps prepared by the USGS and Pacific County.
2. Landslide Hazard Areas: The Soil Survey may be relied upon by the Administrator as a basis for requiring field investigation and special reports. In the event of a conflict between information contained in the Soil Survey and information shown as a result of a field investigation, the latter shall prevail.
3. Seismic Hazard Areas: The International Building Code (IBC) Seismic Risk Zone Map of the United States and the Washington State Department of Natural Resources' Liquefaction Susceptibility and Site Class Maps for Pacific County.
4. Tsunami Hazard Areas: The Washington Geologic Survey within the Department of Natural Resources produces inundation maps and recommended evacuation routes to show areas at risk from tsunamis generated by large earthquakes. The most recent of these maps will be used to guide decision-making with respect to determination of hazard areas.

3.11.4 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity in areas identified as geologically hazardous:

- Geotechnical conditions;
- Potential impact on geologic conditions;
- Potential impact of geologic hazards on proposed activity;
- Type of proposed activity;
- Proposed erosion control plan;
- Results and recommendations of special geotechnical or geological investigations prepared by qualified professional;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity to public rights-of-way; and
- Suitability to accommodate on-site wastewater disposal and domestic water supply facilities.

3.12 FISHERIES, WILDLIFE, SHELLFISH, KELP, EELGRASS, HERRING, AND SMELT SPAWNING HABITAT CONSERVATION AREAS

3.12.1 HABITAT CONSERVATION AREAS IN PACIFIC COUNTY

Pacific County's natural resources encompass a large variety of environments that support exceptional ecosystems of fish and animal life. Many residents and visitors participate in outdoor recreational activities in these habitats, including hunting, fishing, clamming, photography of wildlife, bird watching, and others. Pacific County recognizes the economic value and community benefits of these activities as well as the inherent importance of protecting wildlife and the natural environment. It is the intent of these policies to recognize the importance of protecting fish, wildlife, shellfish, kelp, eelgrass, herring, and smelt spawning habitat areas.

At the same time, it is important to encourage the continuation of historical forestry, agricultural and aquacultural practices. It is also the intent of these policies to protect the habitat resources and encourage their enhancement and preservation when development influences are proposed. It is not intended that these policies create a burden to existing land uses.

3.12.2 POLICY REGARDING PROTECTION OF HABITAT CONSERVATION AREAS

Pacific County's policy is to protect habitat conservation areas for endangered, threatened, or sensitive species listed by the Washington State Department of Fish & Wildlife. Pacific County adopts the Department of Natural Resources' Official Water Type Maps. Definitions are as identified in the water typing criteria in WAC 222-16-030; provided, however, that artificially created structures, ditches, canals, ponds, irrigation return ditches, and stormwater channels of every type shall not be considered a stream for purposes of this section. Streams are classified Type 1-5 for critical area protection purposes based on the water typing criteria in WAC 222-16-030.

Pacific County has adopted the designations listed at WAC 232-12-014 (Endangered), WAC 232-12-011 (Threatened and Sensitive), WAC 220-610-100 (Bald Eagle), and federally designated threatened or endangered species categories legally applicable to Pacific County.

3.12.3 IDENTIFYING AND CLASSIFYING HABITAT CONSERVATION AREAS

Habitat conservation areas in Pacific County are identified as follows:

Fisheries and Wildlife

Fish and Wildlife habitat conservation areas in Pacific County are identified as:

1. Areas with which endangered, threatened, and sensitive species have a primary association;
2. Commercial and recreational shellfish areas;

3. Shellfish kelp and eelgrass beds; herring and smelt spawning areas;
4. Naturally occurring ponds under twenty (20) acres and their submerged aquatic beds that provide fish or wildlife habitat;
5. Waters of the State;
6. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; or
7. State natural area preserves and natural resource conservation areas.

Shellfish, Kelp, Eelgrass, Herring, and Smelt Spawning

Shellfish, Kelp, Eelgrass, Herring, and Smelt Spawning critical areas in Pacific County are identified as those public and private saltwater tidelands or beds that are devoted to the process of growing, farming, or cultivating shellfish, including commercial clam and oyster grounds, oyster and mussel raft areas, and recreational shellfish harvesting areas. In addition, all property located three hundred (300) feet landward from the boundary of upland vegetation (or highest tide if so designated by the Administrator of Ordinances No. 180 and 180A) shall be designated as a critical area. The importance of this 300' strip is that within this area, the requirements governing the use and installation of on-site sewage disposal standards have been enhanced to help protect water quality within the Bay. New septic systems being installed adjacent to Willapa Bay are meeting effluent treatment standards that exceed State standards for new systems. The County also administers a low interest loan program targeting failed systems immediately adjacent to the Bay.

3.12.4 MAPS AND REFERENCES

The following references may provide an indication of habitat area locations. However, these and other similar resources may not be prepared at a level of detail sufficient to accurately portray the exact location and extent of habitat areas in Pacific County, and cannot be used in place of an on-site field determination. Many habitat areas in Pacific County will not appear on these resources.

1. Fisheries: DNR base maps for stream types and topography provide an indication of the location of fisheries resources. Field conditions shall be used to determine the existence or extent of any classified stream area.
2. Wildlife: Wildlife critical areas shall be field located based on applicable criteria by a qualified, critical areas professional. Department of Fish and Wildlife maps of bald eagle, sensitive, threatened, and endangered species and habitat shall be consulted.
3. Shellfish, kelp, eelgrass, herring, and smelt spawning areas should be field located by a qualified, critical areas professional.

4. Pacific County Shoreline Management Program (Ordinance No. 183).

3.12.5 CRITICAL AREAS AND RESOURCE LANDS ASSESSMENT CRITERIA

If a critical areas and resource lands assessment is required by the Critical Areas and Resource Lands Ordinances No. 180 and 180A, the following criteria may be considered when reviewing a proposed activity:

- Proposed mitigation plan;
- Type of proposed activities;
- Proposed revegetation plan;
- Availability of public facilities and services;
- Proximity of proposed activity to urban growth areas;
- Compatibility of proposed activity with adjacent land use;
- Environmental impacts of proposed activity, including cumulative impacts;
- Impacts of proposed activity to public rights-of-way; and
- Suitability to accommodate on-site wastewater disposal and domestic water supply facilities.

3.13 GOALS AND POLICIES

The goals and policies of the Pacific County Comprehensive Plan are intended to provide guidance for decision-making processes subject to this plan. These goals and policies were initially developed by separate groups of citizens across the various regions of the County, and by the incorporated cities within the County. To reflect the desired direction of the County as a whole, the work of these individual regions and cities, have been combined as presented below. Goals and policies do not apply to incorporated cities, but rather, only to unincorporated areas of the County.

Goal R-1: Agricultural land of long-term commercial significance should be preserved.

Policy R-1.1: Agricultural land of long-term commercial significance should be identified and designated as such.

Policy R-1.2: Non-agricultural uses, including accessory uses and activities, of agricultural land of long-term commercial significance should be limited to lands with poor soils or otherwise not suitable for agricultural purposes.

Policy R-1.3: Residential uses adjacent to agricultural land of long-term commercial significance should be developed in a manner which limits potential conflicts and reduces unnecessary conversion of farmland.

- Policy R-1.4:** Commercial farmland owners should be encouraged to retain their land in commercial farm production.
- Policy R-1.5:** In order to reduce development pressure on agricultural land of long-term commercial significance, future development should be directed toward areas of more intense development where existing and planned services can more easily accommodate growth. Outside these areas, densities should remain low.
- Policy R-1.6:** Designated agricultural land of long-term commercial significance should be zoned at very low densities to ensure the conservation of the resource for continued agricultural use.
- Policy R-1.7:** Except within urban growth areas, land uses that are adjacent to agricultural land of long-term commercial significance should be compatible with agriculture, i.e., sawmill operations, warehousing, agri-businesses, and low density residential.
- Policy R-1.8:** In addition to those agricultural lands considered lands of long-term commercial significance, the County should encourage small “truck farms” to ensure a variety of agricultural products are available for the public.
- Policy R-1.9:** Pursuant to RCW 33.70A.705, the Voluntary Stewardship Program (VSP) is adopted to exempt all agricultural activities in Pacific County from the county’s critical area regulations. Promotion of the VSP program and commitments from producers to implement incentive-based Voluntary Stewardship Plans to maintain and enhance ecosystem quality should be encouraged.
- Goal R-2:** **Areas devoted to the process of growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should be protected and preserved in order to promote an adequate resource base for long-term use.**
- Policy R-2.1:** Critical areas for growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should be identified and designated as such.
- Policy R-2.2:** Use of lands that are adjacent to areas identified for growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should be compatible, such as forestry and low density rural residential. Those uses should not appreciably or cumulatively increase stormwater runoff or otherwise degrade water quality.

- Policy R-2.3:** Facilities for land based and marine operations related to growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should be protected from incompatible adjacent or nearby land uses.
- Policy R-2.4:** Land-based and marine activity related to growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should not be considered a nuisance if carried out in a reasonable manner and within applicable regulations. Restrictions should not be imposed on such activities unless they are necessary for preserving the public health, welfare, and safety.
- Policy R-2.5:** Proposed residential and other uses in areas used for growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt should be developed in a manner which lessens potential conflicts with such operations.
- Policy R-2.6:** Water quality in the County's marine estuaries, inland waters, and ground water should be protected from degradation. Waters within drainage basins of areas identified as critical for growing, farming, or cultivating shellfish, kelp, eelgrass, herring, and smelt, that fail to meet water quality standards, should be restored.
- Goal R-3:** **Forest lands of long-term commercial significance should be conserved in order to maintain a viable forestry industry for long-term economic use while protecting environmental values.**
- Policy R-3.1:** The County supports and encourages the maintenance of forest lands in timber and current use property tax classifications consistent with RCW 84.33, and 84.34.
- Policy R-3.2:** Residential development adjacent to forestry uses should occur in a manner which reduces potential conflicts and reduces unnecessary conversion of forest land through use of such mechanisms as clustering, buffers, etc.
- Policy R-3.3:** The primary land use activities in forest land of long-term commercial significance should be commercial forest management, agriculture, mineral extraction, accessory uses, wildlife habitat enhancement programs, and other non-forest related economic activities relying on forest land.
- Policy R-3.4:** Land use activities within or adjacent to forest land of long-term commercial significance should be sited and designed to minimize conflicts with forest management, and other activities on forest land.

- Policy R-3.5:** The County discourages the establishment or expansion of utility local improvement districts, or sewer, water or public utility districts on forest lands of long-term commercial significance which result in the imposition of assessments, rates, or charges on designated forest land.
- Policy R-3.6:** Clustering of residential development on adjacent rural lands is encouraged. The open space in clustered development should be adjacent to the forest land of long-term commercial significance.
- Policy R-3.7:** It is in the public interest for the County to encourage the continuation of commercial forest management by supporting land trades that result in consolidated forest ownerships.
- Policy R-3.8:** Subject to any state or local regulation of critical areas, the County encourages the multiple economic use of forest land for a variety of natural resource and other land use activities particularly suited for forest lands because of physical and topographical characteristics; remoteness from populated areas; availability of water supplies; the quality of the forest environment; or where the efficient provision of statewide or regional utilities, energy generating and/or transmission facilities, or public facilities require access across or use of such forest lands.
- Policy R-3.9:** Forest practices within Pacific County should be given protection from nuisance claims in accordance with state law.
- Goal R-4: Forest lands of long-term commercial significance should accommodate public recreation.**
- Policy R-4.1:** Public trails, camping facilities, and other low intensity recreation uses are encouraged in forest lands, subject to available financial resources and compatibility with commercial timber harvest activities.
- Policy R-4.2:** Forest land considered desirable for acquisition for public purposes should first be evaluated for its impact on a viable forest industry and local government revenue and programs.
- Policy R-4.3:** When timber harvesting is for conversion to other uses, the County should ensure that harvesting is done in a manner compatible with land uses of the surrounding area and which maintains water quality and environmentally sensitive features. Conversion of forest land

that has not been designated as being of long term commercial significance should be accommodated.

Policy R-4.4: Owners of forest land planned for conversion to another use should provide buffers between their property and adjacent forestry uses.

Goal R-5: Mineral resource land of long-term commercial significance should be allowed to be used by extraction industries, while minimizing conflicts between other land uses and general environmental concerns.

Policy R-5.1: Designated mineral resource land of long-term commercial significance should be conserved for mineral extraction, and the use of adjacent lands should not interfere with the continued use of the designated mining sites that are being operated in accordance with applicable best management practices and other laws and regulations.

Policy R-5.2: Designated mineral resource sites that are being operated in accordance with applicable best management practices and other laws and regulations should be given protection from nuisance claims from landowners who have been notified of the presence of the long-term mineral extraction site.

Policy R-5.3: Restoration of mineral extraction sites should occur as the site is being mined. The site should be restored for appropriate future use and should blend with the adjacent landscape and contours.

Policy R-5.4: Agriculture and aquaculture land should not be used for mining purposes unless it can be restored to its original production capacity after mining ceases.

Policy R-5.5: Extraction industries should not adversely impact adjacent or nearby land uses or public health and safety. Mineral extraction activities also should not negatively ~~effect~~ affect or endanger surface and ground water flows and quality.

Policy R-5.6: Areas where existing residential uses predominate should be protected against intrusion by mineral extraction operations.

Goal R-6: Wetlands should be protected because they protect water quality, reduce flooding, provide aquifer recharge for drinking water and other uses, and provide critical habitat for fish and wildlife.

Policy R-6.1: Wetlands should be protected from alterations due to land use

changes which may create unmitigated adverse impacts to the wetland.

Policy R-6.2: Whenever feasible and permitted, new technologies which enhance a wetland and promote it as a useful, functioning part of a development should be encouraged.

Policy R-6.3: Wetland preservation strategies and efforts, including wetland buffers and banking, should be coordinated with appropriate local, state and federal agencies and private conservation organizations to take advantage of both technical and financial assistance, and to avoid duplication of efforts.

Policy R-6.4: Wetland areas should be identified by the applicant and reviewed by the County prior to development.

Goal R-7: **Areas demonstrated to be critical aquifers and/or which play a crucial role in recharging our groundwater supplies should be carefully monitored and regulations developed to protect potable water sources.**

Policy R-7.1: Critical groundwater supply areas, aquifer recharge areas, and areas with a high groundwater table and/or unconfined aquifers that are used for potable water should be identified.

Policy R-7.2: The establishment of land use intensity limitations based on the availability of sanitary sewers should be encouraged. Cluster developments are encouraged because of the potential for shared, community sewage disposal systems instead of dispersed individual septic systems.

Policy R-7.3: Forestry, agricultural, and aquacultural activities should incorporate best management practices concerning waste disposal, fertilizer, use, pesticide use, and stream corridor management.

Policy R-7.4: Fertilizer and pesticide management practices of new schools, parks, golf courses and other recreational or institutional facilities that maintain large landscaped areas should incorporate best management practices (BMPs). Existing facilities are strongly encouraged to also incorporate these BMPs.

Policy R-7.5: Development which could substantially and negatively impact the quality of an aquifer should not be allowed.

Policy R-7.6: Within aquifer recharge areas, short and long subdivisions and other divisions of land should be evaluated for their impact on groundwater quality and quantity.

Goal R-8: Frequently flooded areas of Pacific County that are known to be vital to maintaining the integrity of natural drainage systems should be protected by adopting regulations to prevent potential alterations and obstructions to those areas.

Policy R-8.1: Frequently flooded areas within active flood control zone districts should be identified as such and mapped.

Policy R-8.2: Growth and development patterns compatible with natural drainage features are encouraged, and alteration of natural drainage features are discouraged.

Policy R-8.3: Control of erosion at its source as a means of controlling water pollution, flooding, and habitat damage downstream is encouraged.

Policy R-8.4: A drainage ordinance that directs all land development activities to make provisions for control of surface water discharge impacts should be implemented for any portion of the County within an active flood control zone district.

Policy R-8.5: New development in frequently flooded areas and mapped flood plains that poses a threat to human health and property is discouraged.

Goal R-9: Appropriate measures should be provided to either avoid or mitigate significant risks to public and private property and to public health and safety that are posed by geologic hazard areas.

Policy R-9.1: Probable significant adverse impacts from geologically hazardous areas should be identified during the review of a development application.

Policy R-9.2: Within active flood control zone districts, grading and clearing for both private developments and public facilities or services should be limited to the minimum necessary to accomplish engineering design.

Policy R-9.3: To minimize blowing soil during land development or alteration such as dune modification or development, appropriate water and mulch material should be required on any areas without a vegetative

cover.

Policy R-9.4: To maintain the natural integrity of landslide hazard areas and to protect the environment, and the public health and safety, an adequate buffer of existing vegetation should be maintained around all sides of the landslide hazard areas.

Goal R-10: Fish and Wildlife habitat areas should be protected as an important natural resource for Pacific County.

Policy R-10.1: Pacific County should recognize critical fish and wildlife habitat conservation areas that have been recognized by state and federal agencies with jurisdiction.

Policy R-10.2: The impacts of new development on the quality of land, wildlife and vegetative resources should be considered as part of the environmental review process. Appropriate mitigating measures should be required. Such mitigation may involve the retention and/or enhancement of habitats.

Policy R-10.3: Restoration of lost and damaged fish habitat should be encouraged.

Policy R-10.4: Proper riparian management that maintains existing riparian habitat and is consistent with best agricultural management practices should be encouraged.

Policy R-10.5: Land uses adjacent to naturally-occurring water bodies and other fish and wildlife habitat areas should not significantly impact the habitat areas.

Policy R-10.6: Activities allowed in fish and wildlife habitat conservation areas and open space should be consistent with the species located there, and in accordance with all applicable state and federal regulations and/or best management practices. Low impact recreational activities should be encouraged.