

RESOLUTION NO. 2000-039

PACIFIC COUNTY SHORELINE MASTER PROGRAM

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
PACIFIC COUNTY, WASHINGTON**

A RESOLUTION IN THE MATTER OF ADOPTING A MASTER PROGRAM FOR THE MANAGEMENT AND PROTECTION OF THOSE SHORELINES WITHIN PACIFIC COUNTY, INCLUDING A GOAL, POLICIES, REGULATIONS, AND ENVIRONMENT DESIGNATIONS: PROVIDING FOR THE ADMINISTRATION, ENFORCEMENT AND AMENDMENT OF THE REGULATORY PROGRAM, INCLUDING A PERMIT SYSTEM: PRESCRIBING PENALTIES: AND GENERALLY CARRYING OUT THE PROVISIONS OF THE SHORELINE MANAGEMENT ACT OF 1971.

WHEREAS, primary responsibility for initiation and administering the regulatory program of the Shoreline Management Act of 1971 has been assigned to local government; and

WHEREAS, the County has taken the necessary steps, as required by state law and regulation, to prepare a Master Program; and

WHEREAS, the Department of Ecology must adopt a Master Program for a local jurisdiction if the local governing body does not do so; and

WHEREAS, this Master Program establishes regulatory provisions to manage and protect the shorelines of the state in a manner which promotes the welfare of the people of the county and of the state generally and which carries out the intent, policy and specific provisions of the Shoreline Management Act of 1971;

NOW, THEREFORE, the County of Pacific does adopt as follows:

SECTION 1 - TITLE, APPLICABILITY, AUTHORITY, PURPOSE

- A. This Master Program shall be known and may be cited as the Pacific County Shoreline Master Program.
- B. The provisions of this Master Program shall apply to all shorelines of the state as defined in RCW 90.58 and WAC 173.16.030 and located within the jurisdiction of the County.
- C. The primary authority for the passage and enforcement of this master program is the Shoreline Management Act, RCW 90.58. Further authority is based on applicable provisions of Chapter 36.70 RCW, Chapter 36.70A RCW and Chapter 36.70B RCW.

- D. The purpose of this master program is to meet local responsibilities for the implementation of the policy of the state as given under provisions RCW 90.58.020 of the Act and in state regulations adopted pursuant to Chapter 90.58 RCW, insofar as a regulatory program can accomplish such purpose. These responsibilities are as generally defined under provision RCW 90.58.050

- E. The County's goal in adopting this master program is to recognize and protect the functions and values of the shoreline environments of statewide and local significance. For shorelines of state-wide significance (SSWS), protection and management priorities are to:
 - 1. Recognize and protect the state-wide interest over local interests;
 - 2. Preserve the natural character of the shoreline;
 - 3. Provide long-term over short-term benefit;
 - 4. Protect the resources and ecology of shorelines;
 - 5. Increase public access to publicly owned areas of shorelines; and
 - 6. Increase recreational opportunities for the public in shoreline areas.

- F. Where provisions of this master program conflict with each other or with other ordinances or programs adopted herein by reference, the more restrictive of the provisions shall apply unless specifically stated herein.

SECTION 2 - DEFINITIONS

- A. As used in this Master Program, unless the context otherwise requires, the following terms shall have the given meanings. The meanings are not intended to conflict with, supplant or revise identical terms in the Act or regulations adopted pursuant to it, but are intended to supplement or clarify such words or phrases. Terms not defined are to be interpreted in light of the definitions, intent and other provisions of the Act and this Master Program.
 - 1. ACT - means the Washington State Shorelines Management Act of 1971, RCW 90.58.
 - 2. AMINISTRATOR - means the Director of the Pacific County Department of Community Development or his or her designee(s).
 - 3. BOARD - means the Pacific County Board of Commissioners.

4. COASTAL WATERS - Coastal waters are waters of the Pacific Ocean seaward from Cape Flattery south to Cape Disappointment, from mean high tide seaward two hundred miles. For Pacific County, coastal waters include from mean high tide seaward three miles; the waters of Willapa Bay; and, in the Columbia River, from mean higher high water waterward to the state's southern boundary.
5. COMMISSION - means the Pacific County Planning Commission.
6. CONDITIONAL USE - means a use, development, or substantial development which is classified as a conditional use or is not classified within this master program.
7. COUNTY - means Pacific County.
8. DEPARTMENT - means the Pacific County Department of Community Development.
9. DEVELOPMENT - means a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands to this master program at any state of water level.
10. ENVIRONMENT - means one of the categories, listed below, into which all the different shorelines of the state have been placed (or designated), as shown on the Shoreline Map. The detailed meaning of this word and its applications are defined under WAC 173-16-040(4).
 - a. "Natural" means those shorelines which have been placed (or designated) in the natural environment as defined under WAC 173-16-040(4)(b)(i) and which are to be managed and regulated to achieve the intent defined therein.
 - b. "Conservancy" means those shorelines which have been placed (or designated) in the Conservancy Environment as defined under WAC 173-16-040(4)(b)(ii) and which are to be managed and regulated to achieve the intent defined therein.
 - c. "Rural" means those shorelines which have been placed (or designated) in the conservancy environment as defined

under WAC 73-16-040(4)(b)(iii) and which are to be managed and regulated to achieve the intent defined therein.

- d. “Urban” means those shorelines which have been placed (or designated) in the urban environment as defined under WAC 173-16-040(4)(b)(iv).
11. FLOODWAY - means those portions of the area of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal conditions, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition. The floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state.
12. FOREST LINE - means where along the tidal waters of Willapa Bay the ordinary high water mark coincides with the occurrence of the upland forest, the boundary between coastal wetlands and upland is understood to be the “forest line”; along a shore subject to erosion, the boundary is the “line of extreme high tide”; along a shore that has been altered by diking, filling, or bulkheading, the boundary is the “line of extreme high tide.”
13. GOAL - means the statements in Subsection 3 1.Eof this Master Program which express the aspirations that the citizens of the COUNTY have for the use and development of the shorelines of the state.
14. GUIDELINES - means Shoreline Management Act Guidelines for development of master programs, adopted by the Department of Ecology, and codified in Chapter 173-16 WAC.
15. HEARINGS BOARD - means the Shorelines Hearings Board established under the Act (RCW 90.58.170).
16. MASTER PROGRAM or PROGRAM - means the COUNTY program for regulation and management of the shorelines of the state, as required by the Act (RCW 90.58.080), and including statements of goals and policies, use regulations, maps, diagrams, charts and any other text included in the Program. The enforceable

provisions of the Master Program are embodied in this Master Program.

17. MEAN HIGHER HIGH TIDE - means the elevation determined by averaging each day's highest tide over a period of 18.6 years.
18. NONCONFORMING USE OR DEVELOPMENT- means a shoreline use or development which was lawfully constructed or established prior to the effective date of the Act or this master program, or amendments thereto, but which does not conform to present regulations or standards of the program.
19. OCEAN DISPOSAL - The deliberate deposition or release of material in the Ocean Environment, such as solid waste, industrial waste, radioactive waste, incineration and incinerator residue, dredged material, vessels, aircraft ordnance, platforms or other manmade structures.
20. OCEAN ENERGY PRODUCTION - Production of energy in a usable form directly in or on the ocean rather than extracting a raw material for transportation elsewhere to produce usable energy.
21. OCEAN ENVIRONMENT - The purpose of this designation is to protect the unique characteristics of the ocean environment by managing use activities and assuring compatibility between shoreland and ocean uses. The Ocean Environment may allow either multiple water-dependent uses or specific single dominant water-dependent uses in areas of unique conditions. It is designed to promote the wise use of the natural features and resources of ocean waters which are substantially different in character from those of the adjoining uplands, inland marine waters, and backshores. The Ocean Environment are waters of the Pacific Ocean from Cape Disappointment north to the border between Pacific County and Grays Harbor County; and from mean high tide, seaward three miles.
22. OCEAN EXPLORARION - The search for oil, gas, minerals and other resources in coastal waters. Activities include but are not limited to seismic surveys, geologic sampling, temporary wells, and cultural or biological surveys. The Department of Ecology is responsible for issuing permits for oil and gas exploration activities pursuant to the Shoreline Management Act (RCW 90.58.550).
23. OCEAN MINING - Mining of metals, minerals, sand, and gravel resources from submerged lands in the Ocean Environment.

24. OCEAN RESEARCH - Scientific investigation in coastal waters for the purpose of furthering knowledge and understanding, except as defined as exploration activity in WAC 173-15-020 which requires a permit from the Department of Ecology.
25. OCEAN SALVAGE - Retrieval of man-made structures in coastal waters.
26. OCEAN TRANSPORTATION - Ocean transportation uses include shipping (via vessel or pipeline), transferring between vessels, transferring via pipeline, and off-shore storage of oil and gas; transport of other goods and commodities; and off-shore ports, terminals and airports. These activities may originate, conclude or pass through Washington's coastal waters.
27. OCEAN USES - Ocean uses are activities or developments involving renewable and/or nonrenewable resources that occur on Washington's coastal waters and includes their associated off shore, near shore, inland marine, shoreland, and upland facilities and the supply, service, and distribution activities, such as crew ships, circulating to and between the activities and developments. Ocean uses involving nonrenewable resources include such activities as extraction of oil, gas and minerals, energy production, disposal of waste products, and salvage. Ocean uses which generally involve sustainable use of renewable resources include commercial, recreational, and tribal fishing, aquaculture, recreation, shellfish harvesting, and pleasure craft activity.
28. OIL AND GASS DEVELOPMENT - The design and construction of off-shore and associated onshore support facilities. The Development stage occurs after planning and permitting are completed ad before the flow or production of the oil or gas begins.
29. OIL AND GASS PRODUCTION - The operation and maintenance of facilities and other activities associated with the actual flow of oil or gas. If exploration for additional wells continues; and subsequent construction of facilities to enable additional oil or gas production from newly discovered wells occurs after oil or gas production begins, those activities are not considered activities associated with production and must comply with the regulations for exploration and development activities.
30. ORDINARY HIGH WATER MARK - shall have the meaning defined by RCW 90.58.030(2)(b) and WAC 173-16-030(10).

31. PERMIT - means any substantial development, variance, conditional use permit, or revision authorized under Chapter 90.58 RCW.
32. PERSON - means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local governmental unit however designated.
33. SELECTIVE CUTTING - means timber cutting as allowed on shorelines of statewide significance by the Act, RCW 90.58.150.
34. SHORELANDS or SHORELAND AREAS - means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this master program. As defined in this Shoreline Master Program, Pacific County shorelands include the entire one hundred-year floodplain.
35. SHORELINES - shall have the meaning defined by RCW 90.58.050(2)(d).
36. SHORELINES OF STATEWIDE SIGNIFICANCE - shall have the meaning defined by RCW 90.58.030(2)(e).
37. SHORELINES OF THE STATE - means the total of all "shorelines" and "shorelines of state-wide significance" within the COUNTY.
38. SHORELINE MAP OR MAP - means the maps associated with this Master Program on which is shown the approximate jurisdiction of the Act and this Master Program, and also the boundaries of the environments.
39. STRUCTURE - means a permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above, or below the surface of the ground or water, except for vessels.
40. SUBSTANTIAL DEVELOPMENT - shall have the meaning defined by RCW 90.58.030(3)(e).

41. SWS - means shorelines works and structures and refers to such structures as bulkheads, jetties, groins, canals, piers, and breakwaters.
42. TECHNICALLY COMPLETE - means that an application for a permit under this master program meets the requirements of Section 5 of Pacific County Ordinance No. 145 or any amendments thereto.
43. TIDAL WETLANDS - means those tidal marshes, tidal mudflats and other tidelands which are inundated by the normal extreme high tide (high water elevation) as defined in official tide tables. For example, the elevation use to define tidal wetlands in the vicinity of the Port of Willapa Harbor, Raymond, Washington would be 12.7 feet tidal gage elevation based on the January 8, 1974 predication. Tidal wetlands, as defined herein, do not include the additional areas inundated by storm surges or heavy runoff which raise the levels above predicted elevations.
44. VARIANCE - means to grant relief from the specific bulk, dimensional or performance standards set forth in this master program and not a means to vary a use of a shoreline.
45. WETLANDS - means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to cranberry bogs, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were intentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

B. As used or in the interpretation of the Columbia River Estuary Segment, the following terms shall have the meanings indicated:

1. AQUACULTURE - The raising, feeding, planting and harvesting of fish and shellfish, or other aquatic plants and animals including associated facilities necessary to engage in the use.

2. **AQUATIC AREAS** - Aquatic areas include the tidal waters and wetlands of the estuary and non-tidal sloughs, streams, and wetlands within the shoreland areas.

The lands underlying the waters are also included. The upper limit of aquatic areas is the line of non-aquatic vegetation or, where such a line cannot be accurately determined, Ordinary High Water in tidal areas and Ordinary High Water (OHW) in non-tidal areas.

3. **BANKLINE . . . or STREAM ALTERATION** - Realignment of a stream bank or the entire stream, either within or without its normal high water boundaries.
4. **BEACH** - Zone of unconsolidated material extending landward from the low water line to the seaward edge of shoreland vegetation.
5. **BULKHEAD** - A vertical wall of steel, timber or concrete piling of solid or open pile construction.
6. **COMMUNICATION FACILITIES** - Power and communication lines and towers, antennas and microwave receivers.
7. **DIKE** - A structure designed and built to prevent inundation of a parcel of land by water. A dike is considered new when placed on an area which: (1) has never previously been diked; or (2) has previously been diked, but all or a substantial part of the area is subject to daily inundation and tidal marsh has been established. Maintenance and repair refer to: (1) existing serviceable dikes (including those that allow some seasonal inundation); and (2) those that have been damaged by flooding, erosion, tide gate failure, etc., but where reversion to tidal marsh has not yet occurred.
8. **DOCK** - A pier or secured float or floats for boat tie-up or other water use, often associated with a specific land use on the adjacent shoreland, such as a residence or commercial use of light industrial facility.
9. **ESTUARY** - A body of water semi-enclosed by land, connecting with the open ocean, and within which salt water is diluted by freshwater derived from the land.

10. **FILL** - Fill is the placement by man of sediment or other material in an aquatic area to create new shorelands or on shorelands to raise the elevation of the land.
11. **FLATS** - Intertidal and shallow subtidal areas with low slopes and current velocities, often productive with relatively fine sediments.
12. **FLOW-LANE** - The natural channel and the slopes adjacent to the natural channel, including the navigation channel.
13. **FLOW-LANE DISPOSAL** - Disposal of dredged material in the flow land, in a location where the prevailing sediment transport is in a downstream direction.
14. **FLUSHING TIME** - The length of time required to remove an introduced pollutant from the body of water through tidal or fresh water flow.
15. **HABITAT** - The place where an organism lives; the place occupied by an entire community, such as a freshwater tidal marsh community.
16. **HISTORICAL RESOURCE** - Those districts, sites, buildings, structures, and artifacts which have a relationship to events or conditions of the human past.
17. **INTERTIDAL** - Between the tides, here considered to be that area between mean lower low water and mean higher high water.
18. **IN-WATER DISPOSAL** - The disposal of dredged material in the estuary, river or ocean.
19. **LOW WATER BRIDGES** - A specific type of bridge crossing. Low water bridges are temporarily placed by private property owners across minor streams and sloughs during periods of low or intermittent water flow in order to provide access for farm machinery and other uses. Low water bridges are generally construction of logs or planking and cable, and, as such, fill required for approaches to these bridges will in all cases be minimal (e.g. grading of a road approach) and consistent with the resource capabilities of the area and the purpose of the management unit. Low water bridges are removed during periods of high water flow and are replaced in the same location in subsequent seasons. Note that in sloughs behind tide gates, where water levels are regulated and changes in seasonal water heights are minimal low water bridges may be in place year round.

20. **MARINAS** - Marinas are facilities which provide moorage, launching, storage, supplies and a variety of services for recreational, commercial fishing and charter fishing vessels. They are differentiated from docks/moorages by their larger scale, the provisions of significant land side services and/or the use of a solid breakwater (rock, bulkheading, etc.)
21. **MINING/MINERAL EXTRACTION** - The removal for economic use of minerals, petroleum resources, sands, gravels or other naturally occurring materials from the shorelands and/or the bed beneath an aquatic area.
22. **MITIGATE** - To alleviate the negative impacts of a particular action.
23. **NAVIGATION CHANNEL** - The authorized channel(s), maintained by the Corps of Engineers.
24. **NAVIGATIONAL STRUCTURES** - Structures such as pile dikes, groins, fills, jetties and breakwaters that are installed to help maintain navigation channels, control erosion, or protect marinas and harbors by controlling water flow, wave action and sand movement.
 - a. **Pile dikes** are flow-control structures that are used primarily in river systems and are made of closely spaced piling connected by timbers; usually they are perpendicular to the shore. They are constructed to increase scour in the navigation channel and/or control shoreline erosion by interrupting sand transport and encouraging sedimentation in the sheltered lee of the pile dike. A single pile dike is unusual; they are generally constructed in groups.
 - b. **Groins** are analogous to pile dikes, but are constructed from rocks. They can withstand rougher wave conditions than pile dikes, are often used on beaches, where they exert a strong influence on sand transport and extend from the backshore seaward across the beach.
 - c. **Jetties** are the largest of all navigational structures; they are made of rock or concrete and are used to stabilize the channel and improve the scour at the mouth of the estuary. They must be able to withstand extreme wave conditions and may alter longshore sand transport for many miles along the coast.

- d. **Breakwaters** may be of rock, steel, concrete or piling, or of the floating kind. They are used to protect harbors and marinas against waves and currents.
25. **PILING/DOLPHIN INSTALLATION** - The driving of wood, concrete or steel piling into the bottom in aquatic areas to support piers or docks, structures moored floating structures, vessels or log rafts, or for other purposes. A dolphin is a group of piling held together by steel cable and used for mooring vessels, log rafts or floating structures.
26. **PUBLIC ACCESS** - A means of physical approach to and along the shoreline available to the general public.
27. **PUBLIC GAIN** - The net gain from combined economic, social, and environmental effects which accrue to the public because of a use or activity and its subsequent resulting effects.
28. **RECREATION, HIGH INTENSITY** - Recreation which requires specially built facilities, or occurs in such extent, degree or magnitude that it results in impacts to or requires modification of estuarine resource areas. Example of high intensity recreation include campgrounds, golf courses, boat launches, etc.
29. **RECREATION, LOW INTENSITY** - Recreation which does not require developed facilities and can be accommodated without change to the area or resource except for small improvements in Shoreland areas involving minimal capital investment and not structures over 500 square feet in area. Examples of low-intensity recreation including boating, hunting, wildlife observation, beachcombing and picnicking. Examples of small improvements appropriate in shoreland areas including trails, picnic tables, restrooms, and viewing platform.
30. **RESOURCE ENHANCEMENT** - The use of artificial or natural means to improve the quantity of quality of a specific resource.
31. **RESTORATION** - Replacing or restoring original attributes or amenities such as natural biological productivity and esthetic or cultural resources which have been diminished or lost by past alternations, activities or catastrophic events. *Active restoration* involves the use of specific remedial actions such as removing dikes or fills, installing water treatment facilities, or rebuilding or removing deteriorated urban water front areas.

32. RIP-RAP - A layer, facing, or protective mound stones randomly placed to prevent erosion, scour or sloughing of a structure or embankment; also, the stone so used.
33. SHORELINE STABILIZATION - The protection of the banks of tidal or nontidal stream, river or estuarine waters by vegetation or structural means.
34. STRUCTURAL ALTERATION - Any change to the supporting members of a building including foundations, bearing walls or partitions, columns, beams or girders or any structural changes in the roof or in the exterior walls.
35. WATER-DEPENDENT - Water-dependent refers to uses and activities which can only be carried out on, in, or adjacent to water, and the water location or access must be needed for one of the following:
 - a. Water-borne transportation (navigation; moorage; fueling and servicing of ships or boats; terminal and transfer facilities; resource and material receiving and shipping);
 - b. Recreation (active recreation such as swimming, boating or fishing, or passive recreation such as viewing or walking);
 - c. A source of water (energy production, cooling of industrial equipment of wastewater, other industrial processes, aquaculture operations); or
 - d. Marine research or education (viewing, sampling, recording information, conducting experiments, teaching).
36. WATER-RELATED - Water-related refers to uses and activities that do not require direct water access (are not water-dependent), but may be appropriate as consistent with other development criteria because;
 - a. They provide goods and/or services that are directly associated with other water-dependent uses (supplying materials to, or using products of, or offering commercial or personal services to water-dependent uses); and
 - b. Location other than adjacent to the water would result in a public loss of quality in the goods and services offered (evaluation of public loss of quality will involve a

subjective consideration of economic, social, and environmental consequences of the use).

SECTION 3 - INTRODUCTION TO POLICIES AND REGULATIONS

A. General Statement.

1. The policies and regulations of this master program constitute a set of controls for the many varied uses of, and/or modifications to, the County shorelines.
2. The shoreline policies that are contained within Subsection 3.B. form the basis for the substantive rules that comprise the bulk of this master program. The policies within Subsection 3.B. have been crafted to recognize unique and valuable shoreline resources and to protect them for the benefit of future generations. The specific regulations throughout this master program implement these policies. The specific regulations constitute the substantive rules that the County must use in processing land development applications that are within the jurisdiction of this master program.

B. Shoreline Policies.

Protecting Pacific County's shoreline environment is of importance to preserving the economic, environmental and cultural resources of our community. The shoreline policies that follow have been crafted to recognize these unique and valuable shoreline resources and to protect them for the benefit of future generations. These policies are intended to be consistent with the Shoreline Management Act, Chapter 90.58 RCW.

1. General Shoreline Use

- a. Maintain areas within the shoreline jurisdiction with unique attributes for specific long-term uses, including agricultural, commercial, industrial, residential, recreational and open space uses.
- b. Ensure that proposed shoreline uses are distributed, located and developed in a manner that will maintain or improve the health, safety and welfare of the public when such uses occupy shoreline areas.
- c. Ensure that activities and facilities are located on the shorelines in such a manner as to retain or improve the quality of the environment.

- d. Ensure that proposed shoreline uses do not infringe upon the rights of others or upon the rights of private ownership.
- e. Minimize the adverse impacts of shoreline uses and activities on the environment during all phases of development (e.g. design, construction, management and use).

2. **Economic Development**

- a. Ensure healthy, orderly economic growth by allowing those economic activities which will be an asset to the local economy, and for which the adverse effects on the quality of the shoreline and surrounding environment can be mitigated.
- b. Protect current economic activity (e.g. shipping, marinas, agriculture, etc.) that is consistent with the policies of the SMP.
- c. Develop, as an economic asset, the recreation industry along shorelines in a manner that will enhance public enjoyment.
- d. Ensure that any economic activity taking place along the shorelines operates without causing irreparable harm to the quality of the site's environment or adjacent shorelands.
- e. Protect current agricultural land uses of long-term commercial significance and provide for development of new agricultural uses for which adverse environmental effects can be mitigated.

3. **Circulation**

- a. Provide safe, reasonable, and adequate circulation systems to shorelines where routes will minimize adverse effects on unique or fragile shoreline features and existing ecological systems, while contributing to the functional and visual enhancement of the shoreline.
- b. Within the shoreline jurisdiction, locate land circulation systems which are not shoreline dependent as far from the land-water interface as practicable to reduce interference with either natural shoreline resources or other appropriate shoreline uses.

4. **Conservation**

- a. Develop and implement management practices that will ensure a sustained yield of renewable resources of the shorelines while preserving, protecting, enhancing and restoring unique and nonrenewable shoreline resources, environments, or features.
- b. Reclaim and restore areas which are biologically and aesthetically degraded to the greatest extent feasible.
- c. Preserve scenic vistas, aesthetics, and vital estuarine areas for fisheries and wildlife protection.

5. **Public Access**

- a. Ensure that developments, uses, and activities on or near the shoreline do not impair or detract from the public's access to the water. Where practicable, public access to the shoreline should be enhanced.
- b. Design public access projects such that they provide for public safety and minimize potential impacts to private property and individual privacy.

6. **Recreation**

- a. Optimize recreational opportunities now and in the future in shoreline areas.
- b. Encourage federal, state and local governments to acquire additional shoreline properties in Pacific County for public recreational uses.

7. **Historic/Cultural/Scientific/Educational**

- a. Identify, protect, preserve, and restore important archaeological, historical, and cultural sites located in shorelands.
- b. Encourage educational projects and programs that foster a greater appreciation of the importance of shoreline management, maritime activities, environmental conservation, and maritime history.

- c. Prevent public or private uses and activities from destroying or damaging any site having historic, cultural, scientific or educational value without appropriate analysis and mitigation.

8. **Wetlands**

- a. Preserve and protect wetlands to prevent their continued loss and degradation.
- b. Identify wetland areas and boundaries according to established identification and delineation procedures.
- c. Provide adequate mitigation for disturbance of wetlands and buffers in the shoreline environment.
- d. Maintain a wetland buffer zone of adequate width between a wetland and adjacent development to protect the functions and values of the wetland.
- e. Base the width of the established buffer zone upon the functions and values of the wetland.
- f. Wetlands which are impacted by activities of a temporary nature should be restored upon project completion.
- g. Give preference to in-kind and on-site replacement of wetland functions and values. Where in-kind and/or on-site replacement is not feasible or practical due to the characteristics of the existing wetland or property, mitigation of equal or greater ecological value should be provided off site.
- h. Require an applicant to monitor mitigation plans, and to take corrective action if necessary, in order to ensure long-term success of mitigation projects.
- i. Develop standards and procedures for wetland banking allowing for approval of wetland mitigation banks on a case by case basis until such standards and procedures are adopted.

9. Utilities

- a. Require utilities to utilize existing transportation and utility sites, rights-of-way and corridors whenever practicable, rather than creating new corridors in the shoreline environment. Joint use of rights-of-way and corridors in shoreline areas should be encouraged.
- b. Locate utility facilities and corridors so as to protect scenic views. Whenever practicable, such facilities should be placed underground or alongside or under bridges.
- c. Design utility facilities and rights-of-way to preserve the natural landscape and to minimize conflicts with present and planned land uses.
- d. Prohibit solid waste disposal activities and facilities in certain sensitive shoreline areas.
- e. Ensure that utilities that are necessary to serve shoreline uses are properly installed so as to protect the shoreline environment and water from contamination.
- f. Locate and design utility facilities in a manner which preserves the natural landscape and shoreline ecology, and minimizes conflicts with present and planned land uses.

10. Beach Erosion

- a. Encourage the design and use of naturally regenerating systems and/or constructed engineering solutions for prevention and control of beach erosion where:
 - i. The length and configuration of the beach will accommodate such systems; and
 - ii. Such protection is a reasonable solution to the needs of the specific site.

11. Vegetation Management

- a. Stress prevention of aquatic weed problems. Where active removal or destruction is necessary, it should be the minimum necessary to allow water-dependent activities to continue. Control activities should minimize negative

impacts to native plant communities, and include appropriate disposal of weed materials.

- b. Invasive, noxious weeds causing irreparable damage to the shoreline environment should be removed with all due diligence.

12. **Water Quality**

- a. Locate, design, construct, and maintain shoreline uses and activities to minimize adverse impacts to water quality and fish and wildlife resources.
- b. Minimize or mitigate for impacts from agricultural activities such as animal feeding operations, feed lot wastes, retention and storage ponds, manure storage, use of fertilizers and pesticides and other like activities by implementing best management practices.

13. **Urban Environment**

- a. Prioritize the preservation or expansion of existing high-intensity commercial or industrial waterfront centers over the creation of new high intensity industrial or commercial sites.
- b. Site industrial or urban development in areas without severe biophysical limitations.
- c. Prioritize "water-dependent", "water-related" and "water-enjoyment" uses over other waterfront uses.
- d. Ensure that developments within the Urban environment are compatible with uses and activities in adjacent (including aquatic) environments.

14. **Rural Environment**

- a. Protect areas with a high capability of supporting agricultural or forestry uses from incompatible development.
- b. Encourage public and private recreational facilities which are compatible with agriculture and forestry industry.
- c. Discourage urban density development.

- d. Promote low-density residential development.
- e. Allow mineral extraction with sufficient buffers.
- f. Require development within the Rural environment to be compatible with uses and activities in adjacent (including aquatic) environments.

15. **Conservancy Environment**

- a. Prohibit or restrict activities and uses which would substantially degrade or permanently deplete the physical or biological resources of the area.
- b. Restrict new development to that which is compatible with the natural or biological limitations of the land and water.
- c. Prohibit activities or uses which would strip the shoreline of vegetative cover, cause substantial erosion or sedimentation, or adversely affect wildlife or aquatic life.
- d. Encourage agricultural and recreational activities which will not be detrimental to the natural shoreline character.
- e. Allow single family residential development as a principal use in the Conservancy environment.
- f. Ensure that developments within the Conservancy environment are compatible with uses and activities in adjacent (including aquatic) environments.

16. **Natural Environment**

- a. Restrict or prohibit uses or developments which would significantly degrade the natural value or alter the natural character of the shoreline area.
- b. Permit access for scientific, historical, educational and low-intensity recreational purposes, provided that no significant adverse impact on the area will result.
- c. Ensure that uses and activities permitted in locations adjacent to shorelines designated Natural are compatible and will not compromise the integrity of the natural environment.

- d. Ensure that developments within the Natural environment are compatible with uses and activities in adjacent (including aquatic) environments.
- e. Prohibit commercial and industrial uses other than low-intensity agricultural practices, low-intensity mineral extraction, and commercial forestry.
- f. Prioritize preservation of resources over public access, recreation and development whenever a conflict exists.

17. Aquatic Environment

- a. Prohibit structures which are not water-dependent and uses which will substantially degrade the existing character of the area.
- b. Ensure that developments within the Aquatic environment are compatible with the adjoining upland environment.
- c. Encourage diverse public access opportunities to water bodies that are compatible with the existing shoreline environment.

18. Agriculture

- a. Protect agricultural land of long-term commercial significance from incompatible and preemptive patterns of development.
- b. Prohibit the creation of new agricultural land by the diking, draining or filling of tidelands and wetlands.
- c. Protect the productivity of the land base by using best management practices to control soil erosion.
- d. Maintain a vegetative buffer between agricultural lands and water bodies or wetlands.
- e. Encourage areas with high aquacultural use potential to develop aquacultural uses.

19. **Boating**

- a. Locate and design boating facilities so that their structures and operations will be compatible with the area affected.
- b. Discourage the use of floating homes and houseboats. They should be allowed only in limited circumstances where their negative environmental impacts can be substantially avoided.
- c. Develop and operate boating facilities consistent with state guidelines, specifically Chapter 173-16 WAC.

20. **Commercial Development**

- a. Encourage new commercial development on shorelines to locate in those areas with existing, consistent commercial and/or industrial uses and in a manner that will minimize sprawl and the inefficient use of shoreline areas.
- b. Encourage commercial development to utilize existing transportation corridors and to minimize the number of ingress/egress points. Ingress/egress should be designed to minimize potential conflicts with, and impact on, regular corridor traffic.

21. **Flood Hazard**

- a. Restrict or prohibit development uses in flood plains which will be dangerous to health, safety or property during flood events.
- b. Require enhanced construction standards in areas that are vulnerable to flooding.

22. **Forest Practices**

- a. Promote timber harvesting practices that do not degrade existing water quality, quantity and fish habitat, and that avoid adverse impacts to upland wildlife habitat.
- b. Discourage logging on shorelines with slopes of such grade and/or soil type that would likely cause severe sediment runoff, unless adequate mitigation and/or restoration and erosion control can be accomplished.

- c. Locate skid road and fire trails to minimize the disturbance to shoreline resources.

23. **Industrial**

- a. Restrict new industrial lands from being sited on sensitive and ecologically valuable shorelines.
- b. Encourage new industrial development to provide physical and/or visual access to shorelines.
- c. Encourage Industrial and Commercial Development within incorporated Urban Growth Areas, rural Areas of More Intense Development, and on existing Port owned and/or operated parcels.

24. **Mining**

- a. Protect water bodies from sources of pollution, including but not limited to, sedimentation and siltation, chemical and petrochemical use, and spillage and storage/disposal of mining wastes and spoils.
- b. Minimize the disruption caused by mining activities so that the natural shoreline systems can function.
- c. Minimize adverse visual and noise impacts of mining on surrounding shoreline areas.
- d. Return closed mining sites to as near a natural state as feasible upon closure.

25. **Recreational Development**

- a. Locate and design shoreline recreational developments to reflect population characteristics, density and special activity demands.
- b. Design recreational developments to minimize adverse impacts on the environment.
- c. Encourage a variety of compatible recreational experiences and activities to satisfy diverse recreational needs.

- d. Encourage the linkage of shoreline parks, recreation areas, and public access points with linear systems, such as hiking paths, bicycle paths, easements and/or scenic drives.
- e. Locate and design recreational developments to preserve, enhance, or create scenic views and vistas.
- f. Locate, design and maintain trails and pathways to protect bank stability.

26. Residential Development

- a. Permit residential development where there are adequate provisions for utilities, circulation and access.
- b. Design and locate residential development to preserve existing shoreline vegetation, to control erosion, and to protect water quality.
- c. Encourage new residential development along the shoreline to cluster dwelling units in order to preserve natural features and minimize physical impacts.
- d. Locate residential development so as not to cause significant adverse impacts to forestry, agricultural, or recreational uses.
- e. Allow protection of single family residences and appurtenant structures against damage or loss due to shoreline erosion.

27. Transportation Facilities

- a. Locate roads to fit the topographical characteristics of the shoreline such that minimum alteration of natural conditions results. New transportation facilities should be located and designed to minimize the need for shoreline protection measures and to minimize the need to modify the natural drainage systems. The number of waterway crossings should be limited as much as practicable.
- b. Encourage trail and bicycle paths along shorelines where they are compatible with the natural character and ecology of the shoreline.
- c. Encourage joint use of transportation corridors within

shoreline jurisdiction for utilities and other forms of transportation.

28. **Shoreline Modification**

- a. Allow location, design, and construction of riprap and other bank stabilization measures primarily to prevent damage to existing development or to protect the health, safety and welfare of Pacific County residents.
- b. New development requiring extensive shoreline stabilization should be discouraged.
- c. Locate and design new development to prevent or minimize the need for shoreline stabilization measures and flood protection works.
- d. Encourage development of an integrated erosion control strategy that balances structural and non-structural solutions to reduce shoreline damage in an environmentally sensitive manner.

29. **Dike and Levy**

- a. Allow location, design, construction, and maintenance or removal of dikes and levies so that they will not cause significant damage to adjacent properties or valuable resources.

30. **Dredging**

- a. Site and regulate dredging and dredge material disposal in a manner which minimizes adverse effects on natural resources.
- b. Ensure that dredging operations are planned and conducted in a manner that will minimize interference with navigation and that will lessen adverse impacts to other shoreline uses.

31. **Landfill**

- a. Allow landfills waterward of OHWM only when necessary to facilitate water-dependent and/or public access uses which are consistent with the master program.

- b. Design and locate shoreline fills to minimize damage to existing ecological systems.
- c. Design the perimeter of landfills to avoid or minimize erosion and sedimentation impacts. Encourage natural appearing and self-sustaining control methods over structural methods.

32. **Pier, Dock, Float, and Buoy**

- a. Design piers, docks, floats and mooring buoys to cause minimum interference with navigable waters and the public's use of the shoreline.
- b. Site and design piers, floats, and docks to minimize possible adverse environment impacts.

33. **Ocean Dunes**

- a. Recognize the value of dunes in protecting inland areas from damaging inundation caused by a combination of high tides and storms, from the harmful effects of windblown sand, and from flooding losses.
- b. Recognize the importance of dunes in providing open space that has economic, aesthetic and ecological value.
- c. Promote a system of dune management that provides access across the dune to the beach in a manner that minimizes disruption of the dune land and natural vegetation.
- d. Limit modification of the dunes and vegetation to comply with state and federal law, and to the minimum extent necessary to protect views and property values.
- e. Recognize the importance of protecting the 100' protective strip eastward of the surveyed vegetation line.
- f. Recognize that accretions have increased the value and amount of open space, and that the dune is, in places, wider than necessary to protect the upland development.

- g. Acknowledge that all information is not available to determine the future of dunal accretion and/or erosion activity, and commit to amending land use policies that respond to refinements in technical research.
- h. Maintain existing beach access roads, parking areas and sanitary facilities. Recognize that the ocean beach is a state corridor in transportation planning activities and studies.

34. **Salmon Habitat**

- a. Lessen impacts of uses, activities, structures, and landfills in salmon habitat, to the maximum extent possible. Significant unavoidable impacts should be mitigated by creating in-kind replacement habitat or other equal benefit where feasible.
- b. Minimize the discharge of silt into waterways during in-water and/or upland construction.

35. **Parking**

- a. Locate and design parking facilities to minimize adverse impacts including those related to stormwater runoff and water quality.

36. **Signage**

- a. Design signs such that they do not block or otherwise interfere with visual access to the water or shorelands.
- b. Require that signs in the shoreline environment be linked to the operation of existing uses and attached to said uses.

37. **Utilities**

- a. Require utilities to utilize existing transportation and utility sites, rights-of-way and corridors whenever possible, rather than creating new corridors in the shoreline environment. Joint use of rights-of-way and corridors in shoreline areas should be encouraged.

38. **Clearing and Grading**

- a. Regulate clearing and grading activities in shoreline areas.

- b. Avoid negative environmental and shoreline impacts of clearing and grading wherever possible through site planning, construction timing, bank stabilization, and the use of erosion and damage control methods.
- c. Design clearing and grading activities with the objective of maintaining natural diversity in vegetation species, age, and cover density.

39. **Geological Hazard Area**

- a. Minimize or mitigate development on unstable or moderately unstable slopes.
- b. Avoid clearing vegetation on and within edges of bluffs. Retention of a natural buffer should be encouraged.
- c. Design and construct structures in a manner that provides structural integrity and safety for their useful life.
- d. Allow sufficient lot depth within new subdivisions such that bulkheading or other structural stabilization is not necessary.

40. **Saltwater Habitat**

- a. Protect critical saltwater habitats, including critical rearing and nursery areas for valuable recreational and commercial species. Protect habitat for ecologically important marine plants, fish and animals.
- b. Ensure that developments within or adjacent to critical saltwater habitats do not directly or indirectly change the composition of the beach and bottom substrate. Habitat enhancement and restoration projects may change beach or bottom substrate when appropriate to restore or enhance habitats.
- c. Design and construct activities and structures that affect critical salt-water habitats to minimize adverse environmental impacts.

41. **Aquaculture**

- a. Areas with high aquacultural use potential should be identified and encouraged for aquacultural use and protected from degradation by other types of land and water uses.
- b. Aquacultural uses and associated on-shore facilities should be located, designed and operated consistent with state guidelines, specifically WAC 173-16-060(2).

42. **Ocean Resources**

- a. Ocean uses and associated on-shore facilities should be located, designed and operated consistent with state guidelines, specifically WAC 173-16-064.

SECTION 4 - AGRICULTURE

The Act specifically exempts the “construction of a barn or similar agricultural structure on wetlands: from the permit system. The regulations below therefore apply only to those agricultural activities and practices which, because they are not specifically exempted by the law, are implicitly subject to control under it.

A. Natural Environment

Agricultural uses are permitted on *natural* shorelines, provided that they do not have a harmful ecological impact and that no extensive clearing, construction or other operation which changes the character of the environment is necessary, and subject to Subsections 4.B.2., 4.B.3., 4.B.4., and 4.B.5. below.

B. Conservancy Environment

1. Agricultural uses are permitted on *conservancy* shorelines provided that they do not involve major construction or other activities which substantially change the character of the environment.
2. Any person proposing to undertake or engage in an agricultural use which is carried on as a normal or systematic part of the raising of crops or livestock on shorelines and which materially interferes with the normal public use of the water or shorelines of the state shall apply for a permit. Such uses include the establishment of feeding pens or other confinement lots for livestock.
3. A permit may be granted subject to the following minimum conditions:

- a. Provide at least 100 feet of vegetated area between confinement lots and streams.
 - b. Locate confinement lots both away from hillsides leading directly to streams and outside the ten-year flood plain, where defined.
 - c. Select a confinement lot site with as much vertical distance as possible between the ground surface and the water table.
 - d. Apply, where applicable, operational guidelines for livestock waste management found in "Livestock Waste Management Guidelines" (E.M. 3479), Cooperative Extension Services, W.S.U., June, 1971.
4. Written notification shall be submitted to the Administrator on a form to be provided by him prior to the application by any person of pesticides and herbicides by aerial spraying or other means which result in aerial drift, unless a substantial development permit has been obtained for said application. Such notification shall include the approximate dates on which spraying operations will begin and end, the location and size of the sprayed area, the types and quantities of pesticides to be sprayed (including name, mixture, application rate and carrier used), and any other information which the Administrator deems helpful in ascertaining compliance with the policies and regulations of this Master Program. The date when spraying is expected to begin, as estimated in the notification, shall be within one week in either direction of the actual time of spraying the pesticides, except that spraying shall not begin earlier than five days following notification unless there is an emergency situation. In emergencies, notification shall be given by phone as much in advance of the application as feasible. The Administrator may at his discretion require additional notification by telephone at least one hour prior to the actual beginning of spraying. The Administrator shall transmit a copy of said written notification to any person or group who have indicated an interest in receiving such notification. Further, he may have a copy of the notification published in a newspaper of general circulation.
5. The following minimum standards shall govern all applications of chemicals, including pesticides, herbicides and fertilizers, including those for which notification is not required:

- a. **Maintenance of Equipment in Leakproof Condition:** Equipment used for transportation, storage or application of chemicals shall be maintained in leakproof condition. If there is evidence of chemical leakage, the further use of such equipment must be suspended until the deficiency has been satisfactorily corrected.

- b. **Protection of Water Quality During Mixing of Chemicals:** Whenever water is taken from any stream or water impoundment for use in the mixing of chemicals, precautions shall be taken to prevent contamination of the source.
 - i. Provide an air gap or reservoir between the water sources and the mixing tank; or

 - ii. Use a portable pump with the necessary suction hose, feed hoses and check valves to supply tanks with water from streams, such pump to be used only for water.

- c. **Protection of Waterways and Areas of Open Water When Spraying:** Protect waterways and areas of open water such as swamps or impoundments from contamination when spraying by aircraft or other means which result in aerial drift by leaving a buffer strip of at least one swath width untreated on each side of every stream or area of open water. No buffer strip is required in the application of pesticides and herbicides by means not resulting in aerial drift or in the application of fertilizers, except that extreme care shall be taken to avoid direct application of such chemicals to streams or areas of open water.
- d. **Selection and Maintenance of Mixing and Land Areas:** Mix chemicals or clean tanks or equipment only where the chemicals will not contaminate surface waters. Mixing areas and aircraft landing areas shall be located where spillage of chemicals will not contaminate water. If any chemical is inadvertently spilled, appropriate procedures shall be taken immediately to contain or neutralize it.
- e. **Application of Chemicals in Accordance with Limitations:** Apply chemicals only in accordance with currently recognized limitations of temperature, humidity, wind and other factors.
- f. **Cleaning and Re-use of Chemical Containers:** Rinse chemical containers with the carrier used in mixing at least three (3) times. Apply the flushing solution in the form of spray to the area. Do not re-use chemical containers unless property treated.
- g. **Daily Records of Chemical Applications:** Whenever pesticide or herbicide aerial sprays are applied, the operator or land owner shall maintain a daily record of spray operations which includes: Names of pilot and contractor; Location of project; Temperature (hourly); Wind velocity and direction (hourly); and pesticides or herbicides uses, including name, mixture, application rate, and carrier used.
- h. **Landowner's or Contractor's Responsibility to Determine Whether or Not Chemicals are Contaminating Streams:** Whenever chemicals are applied, it is the responsibility of the landowner or

contractor to determine whether or not chemicals are contaminating streams or other bodies of water.

- i. **Reporting of Chemical Accidents:** Immediately report all chemical accidents to the Department of Health and Social Services.

C. **Rural Environment**

1. Agricultural uses are permitted on rural shorelines.
2. Subsections 4.B.2., 4.B.3., 4.B.4., and 4.B.5. shall apply.

D. **Urban Environment**

1. Agricultural uses are permitted on urban shorelines.
2. The establishment of feeding pens or other confinement lots and the application of chemicals, as defined under Subsections 4.B.2. and 4.B.4. respectively, shall be prohibited.

SECTION 5 - AQUACULTURE

A. **Natural Environment**

1. Aquacultural uses are permitted on *natural* shorelines provided that they do not have a harmful ecological impact and do not materially interfere with the normal public use of the waters or shorelines of the state, except that unlimited recreational navigation over the surface of the water shall not be construed as normal public use.

B. **Conservancy Environment**

1. Aquacultural uses are permitted on *conservancy* shorelines provided that they do not involve major construction or other activities which substantially change the character of that environment.
2. Any person proposing to engage in aquacultural uses which materially interferes with the normal public use of the water or shorelines of the state shall apply for a permit, except that unlimited recreational navigation over the surface of the waters shall not be construed as normal public use. Uses requiring permits do not include normal harvesting practices, such as dredging for shellfish, but do include:

- a. Construction of facilities.
 - b. Disposal of solid or liquid wastes, such as may result from confined rearing operations for salmon or other marine life, in quantities which may cause violations of State water quality standards and criteria.
3. Subsections 4.B.4. and 4.B.5 on herbicide and pesticide usage shall apply.

C. Rural Environment

1. Aquacultural uses are permitted on *rural* shorelines.
2. Subsection 5.B.2. shall apply.
3. Subsections 4.B.4. and 4.B.5. on herbicide and pesticide usage shall apply.

D. Urban Environment

1. Aquacultural uses are permitted on *urban* shorelines.
2. Subsection 5.B.2. shall apply.
3. The application of chemicals, as defined under agriculture Subsection 4.B.4. shall be prohibited.

SECTION 6 - FOREST MANAGEMENT

A. Natural Environment

1. Harvesting of timber is permitted on *natural* shorelines only after obtaining a permit and where it is necessary to:
 - a. Preserve a desired, pre-climactic stage of plan succession, such as a stand of Douglas Fir, which would eventually be superseded by Western Hemlock and Western Red Cedar if no cutting were done.
 - b. Prevent an epidemic of insect or disease infestations throughout the designated areas and in adjoining areas when no other means of epidemic control will work.

- c. Clean-up and restore an area devastated by disaster such as extensive wind throw or fire.
2. In instances where timber harvesting on *natural* shorelines is permitted, monetary value shall not be sued to justify the timber harvesting but only to determine the economic feasibility of such restorative work.
3. In instances where timber harvesting is permitted on *natural* shorelines, it shall be subject to Subsection 6.A.2. through Subsection 6.A.12.

B. Conservancy Environment

1. Timber harvesting and any tree-felling, vegetation-removing, road-building or other forest-management operation is permitted anywhere on *conservancy* shorelines, subject to Subsection 6.A.2 through Subsection 6.A.12.
2. Written notification shall be submitted to the Administrator on a form to be provided by him prior to the beginning of any timber harvesting or road building operation, unless a substantial development permit has been obtained. Such notification shall include the approximate dates on which the operation will begin and end, the location, size and type of the operation, and any other information which the Administrator deems helpful in ascertaining compliance with the policies and regulations of this Master Program. The approximate date given shall be within one week in either direction of the actual time of beginning the operation, except that the operation shall in no case begin earlier than ten days following notification. Notification may, at the convenience of the land owner, or other person responsible for operations, be done in two steps: The first step being the provision of the locations, sizes, types and other information concerning all planned operations during a given year and the second step being a notification meeting the above time requirements as to the dates when operations will begin and end.
3. All clearcut areas shall be planted or seeded within 18 months of logging to produce at least 500 seedlings per acre.
 - a. If necessary, additional planting or seeding shall be performed annually until the above requirement has been attained.

- b. The Administrator shall grant extensions of up to one year for time for planting or seeding where seedlings or seeds are unavailable due to circumstances beyond the landowner's control, such as unexpected weather conditions.
 - c. Regeneration shall be of a forest tree species compatible with management of adjacent stands.
4. Logging Methods:
- a. Logging shall be by methods not requiring off-road use of wheeled or tracked vehicles, except:
 - i. in areas of stable soils where average slopes are less than 30 percent, or
 - ii. where approved by the Administrator.
 - b. Logs shall be yarded uphill when using any cable yardings system, except where approved by the Administrator.
 - c. Tractor or skidder logging is permissible only:
 - i. above 30 feet landward of the ordinary high water mark, except as noted in Subsection 6.B.4.d. below, and
 - ii. when the ground is sufficiently dry and firm to prevent detrimental soil compaction.
 - d. No tracked or wheeled equipment shall be operated below the ordinary high water mark except when necessary for crossing the stream or for improving or protecting the stream bed and with prior approval of the Washington State Department of Fish and Wildlife.
 - e. No logs shall be yarded across streams or water bodies without prior approval of the Washington State Department of Fish and Wildlife.
 - f. All ruts in exposed erodible soil caused by yarding or skidding shall be adequately water-barred. Such ruts which are within 50 feet of ordinary high water or on slopes exceeding 40 percent shall also be planted or seeded with an appropriate ground cover or mulched.

5. Streamside and Lakeside Vegetation:
- a. Trees shall not be felled into or across streams. Within 30 feet from ordinary high water, directional felling shall be used so that trees fall nearly perpendicular to and away from the stream. If this is not possible, trees will be felled so that disturbances to residual vegetation is minimal during felling and yarding.
 - b. Buffer strips of vegetation shall be left between roads or logged areas and streams. Buffer strips shall meet the following requirements:
 - i. By careful logging, only the merchantable timber may be removed from the buffer strip. All residual vegetation in the buffer strip, including grasses, shrubs, natural cull “down” timber and nonmerchantable trees, shall be left undisturbed to provide shade to the stream and to maintain the integrity of the soil. Where the residual vegetation is inadequate to provide shade or maintain soil-integrity, sufficient merchantable trees shall be left to accomplish these purposes, except that merchantable trees which would clearly blow down because of inadequate soils, low root strength, wind exposure, or other specific factors may be removed. In any case, residual vegetation shall at all times be given the utmost protection. Reforestation shall be carried out utilizing naturally occurring planting spots to produce, if possible, at least 500 seedlings per acre within the first planting season following the timber harvest. However, machine scarification shall not be allowed within the buffer strip or within 30 feet of the ordinary high water mark, whichever distance is greater.
 - ii. Buffer strips shall be protected by leaving stumps high enough to prevent any subsequently-felled, unsloped trees from sliding or rolling through the strips and into the streams.
 - iii. Because of varying site characteristics, the establishment of a uniform buffer strip width is not desirable. However, buffer strips shall be of sufficient width to prevent siltation and the

movement of logging debris into the stream, preserve the stream bank structure and riparian vegetation, and shade the water. The buffer strip shall be a minimum of 30 feet in width measured from the ordinary high water mark, as is also established under Subsection 6.B.4.c. and Subsection 6.B.5.a.

6. Watercourse Improvement: When logging operations are conducted within or to the ordinary high water mark, all dead, down and rotten trees, logs and snags below the mark shall be removed wherever requested by the Washington State Department of Fish and Wildlife.
7. Slash and Waste Control:
 - a. All logging debris greater than 4" diameter and 5' in length shall be removed to above the 25-year flood level and left on a natural bench or other location from which it cannot enter the watercourse.
 - b. No cables, equipment or trash shall be abandoned.
 - c. Culverts and ditches shall be left functional and free of all obstructions.
8. Road Construction and Maintenance:
 - a. Road subgrade widths shall be the minimum commensurate with the intended use, generally not more than 30 feet for double-lane haul roads and 22 feet for single-lane roads and spurs.
 - b. Roads shall follow natural contours wherever possible. Natural benches, ridge tops and flatter slopes are preferred locations.
 - c. Cut slopes shall not exceed:
 - i. 1/4:1 (horizontal to vertical) in rock.
 - ii. 3/4:1 in cohesive soils.
 - iii. 1-1/2:1 in non-cohesive soils.

- d. Side casts shall be prohibited, except where located on stable soils and slopes of less than 30% grade or when they are specifically allowed under the conditions of a substantial development permit. The toe of side cast or filled embankments shall be prohibited closer than 100 feet from the ordinary high water mark of permanent and intermittent streams, except when necessary to approach and cross a stream or when specifically allowed under the conditions of a substantial development permit. The side cast or filled embankment shall not be steeper than a slope of 1.33 to 1 (horizontal to vertical) in broken rock, 1.4 to 1 in cohesive soils, and 1.5 to 1 in non-cohesive soils.

- e. Embankment fills, when allowed under Subsection 6.B.8.d. above, shall:
 - i. be placed in layers of three feet or less in thickness, and compacted by the construction equipment where possible;
 - ii. consist of inorganic material with a minimum or buried slash and debris; and
 - iii. where below the 50-year flood level, be protected against erosion by rip-rap.

- f. Erodible cut, filled and side cast slopes, when allowed within 100 feet of the ordinary high-water mark under Subsection 6.B.8.d. above, shall be protected by planting or seeding with appropriate ground cover or by matting immediately following construction.

- g. Cross culverts for relief of ditch drainage shall be:
 - i. installed at all low points in permanent roadways, and at the following maximum spacing in cohesive soils depending on road grade:

--below 8% grade	1,000 feet
--8% to 15% grade	800 feet
--greater than 15% grade	600 feet

In any case, spacing between culverts shall be adequate to prevent water from the ditch from flowing onto and across the roadbed.

- ii. installed with flumes, half-round extensions or protective rocks where necessary to prevent soil erosion below the discharge end; and
 - iii. adequate in size to carry the maximum anticipated flow and in no case smaller than 18" diameter or equivalent.
 - h. Culverts across intermittent and tributary streams of less than 20 cubic feet per second mean annual flow located with shorelines of the state shall be adequate in size to carry the maximum anticipated flow and in no case smaller than 18" diameter or equivalent.
 - i. Ditches shall be installed on the up hill side of all permanent roads, except through solid rock cuts. Ditches shall be kept clear of obstructions.
 - j. Major roads shall be surfaced with rock whenever necessary to prevent erosion of the subgrade.
 - k. Roads shall either be maintained so as to minimize erosion or be permanently closed and reforested or planted or seeded with appropriate ground cover.
 - l. All road segments shall have complete drainage control by the end of the construction season in which initial grading occurred.
 - m. Road construction shall take place only during the dry season (generally March through October) except where circumstances beyond the operator's control make necessary additional work after November 1 to complete roads on which construction has commenced. Notification explaining those circumstances shall be given the Administrator and have written concurrence obtained prior to continuing work after November 1. Heavy grading shall not be performed when soils are saturated.
9. Bridge Construction
- a. Excavation for and placement of the sills or abutments and outside placement of stringers or girders shall be accomplished from above the ordinary high water mark, except when authorized by the Administrator.

- b. Any disturbed bank material shall be removed from the channel and any soils exposed by bridge construction shall be protected from erosion by planting or seeding with appropriate ground cover, by rip-rap or by other means approved by the Administrator.
 - c. All bridges shall be high enough to pass all expectable debris and anticipated high water flows.
 - d. Where aggregate earthen materials are used for paving or accumulate on bridges, curbs shall be installed to contain the surface material.
 - e. At least one end of each stringer bridge shall be tied to prevent it from being washed away during high water.
 - f. One substantial development permit may cover two or more bridges or other construction activities within the same watershed or associated with the same road system.
10. Additional requirements for culvert installation in those streams know to be used or determined by the Washington State Department of Fish and Wildlife to be used by anadromous fish:
- a. The slope of the culvert shall not exceed 0.5% (1/2 ft. of fall for each 100 feet of length).
 - b. The bottom of the culvert shall be at least 6 inches below the natural stream bed at the inlet and outlet.
 - c. If a multiple barrel culvert is installed, one barrel shall be at least 6 inches lower than the other(s).
 - d. The culvert shall be of sufficient size to pass all anticipated flows and debris.
 - e. The minimum diameter for pipe culverts and minimum height for box culverts shall be 18 inches.
 - f. Any bank protection material shall be placed from the bank, shall be clean and shall be of sufficient size to not be washed away for high water or wave action.
 - g. All other operating standards must be complied with, except where inconsistent with requirements of the Washington State Department of Fish and Wildlife.

11. Agriculture Subsections 4.B.4. and Subsection 4.B.5. on herbicide and pesticide usage shall apply.
12. There shall be additional operating regulations for shorelines of statewide significance as follows:
 - a. All timber cutting, except for selective cutting or for cutting operations authorized by a substantial development permit, shall be prohibited on shorelines of statewide significance. For this purpose, selective cutting means that no more than 30 percent of the merchantable trees may be harvested in any ten-year period of time. Trees shall be considered merchantable if more than eight inches in diameter outside bark at 4- 1/2 feet above ground level.
 - b. Timber cutting in excess of selective cutting harvest limits, as defined under Subsection 6.B.12.a. shall be permitted only after obtaining a substantial development permit. A permit for such timber cutting may be granted on the basis of written findings, confirmed by the Administrator, that:
 - i. the topography, soil conditions or silvacultural practices necessary for regeneration render selective cutting ecologically detrimental; or
 - ii. the cutting is solely incidental to the preparation of land for other uses authorized by the Act, associated regulations, and this Master Program.

C. Rural Environment

1. Timber harvesting is permitted anywhere on rural shorelines, subject to forest management regulations Subsection 6.B.2. through Subsection 6.B.12., where applicable.

D. Urban Environment

1. Timber harvesting is permitted on *urban* shorelines, subject to Subsection 6.B.2. through Subsection 6.B.12., where applicable.
2. The application of chemicals through aerial sprays or other means which result in extensive drift shall be prohibited.

SECTION 7 - COMMERCIAL DEVELOPMENT

A. Natural Environment

1. Commercial uses shall be prohibited on *natural* shorelines.

B. Conservancy Environment

1. Commercial uses shall be prohibited on *conservancy* shorelines, except for those low intensity recreational developments or activities which do not substantially change the character of that environment.
2. Any person proposing to undertake or engage in a commercial use shall apply for a permit.
3. A permit for a commercial use may be granted subject to the following regulations:
 - a. Any commercial structure or facility except one which requires or is dependent on direct, contiguous access to the water shall be setback from the ordinary high water by a minimum of 100 feet.
 - b. Any commercial facility or structure which is built shall be no higher than 35 feet and of inconspicuous appearance so that is either blends with its surroundings or at minimum does not detract from them.
 - c. Parking lots shall remain outside the shoreline jurisdiction except where parking elsewhere is rendered impractical by topography or constitutes a severe economic hardship to the commercial enterprise, in which exceptional cases it shall remain as far from the ordinary high water mark as feasible.

C. Rural Environment

1. Commercial uses are permitted on *rural* shorelines except for those developments which substantially change the character of that environment. Permitted developments include but are not limited to: restaurants, campgrounds, group camps, and similar recreational facilities; craft or antique stores and the like; hunting and fishing and other private club structures; game preserves and

private parks; and commercial uses in restoration of historical structures.

2. Subsection 7.B.2. shall apply.
3. A permit for a commercial use may be granted subject to the following regulations:
 - a. Any commercial structure or facility except one which requires or is dependent on direct, contiguous access to the water shall be setback from the ordinary high water mark by a minimum of 50 feet.
 - b. Subsection 7.B.3.b. shall apply.
 - c. Parking lots with spaces for 10 or more cars may not be located within 100 feet of the ordinary high water mark.

D. Urban Environment

1. Commercial uses are permitted on *urban* shorelines.
2. Subsection 7.B.2. shall apply.
3. A permit for a commercial use may be granted subject to the following regulations:
 - a. Any commercial structure or facility except one which requires or is dependent on direct, contiguous access to the water shall be setback from the ordinary high water mark by a minimum of 10 feet.

SECTION 8 - OUTDOOR ADVERTISING, SIGNS AND BILLBOARDS

A. Natural Environment

1. Signs of any type shall be prohibited on *natural* shorelines, except where necessary to protect the physical well-being of the public.
2. All signs not coming under the exception of Subsection 8.A.1 above and in place at the time of adoption of this Master Program shall be removed within 3 years from the adoption date.

B. **Conservancy Environment**

1. The following types of signs shall be prohibited on *conservancy* shorelines: off-premise advertising signs, pole or free-standing signs, signs projecting above the roof line of the building to which they are attached, and signs within a street right-of-way except those of an official nature.
2. The following types of on-premise advertising or identification signs shall be permitted anywhere on *conservancy* shorelines subject to the given regulations:
 - a. Size of sign:
 - i. **Single-Family Dwelling** - One sign not exceeding two (2) square feet in area.
 - ii. **Farms, Ranches, Commercial Forest, Golf Courses** - Two signs each of which shall not exceed 32 square feet.
 - iii. **Roadside Stands and Other Uses Contained with a Building**- One and a half square feet of sign per lineal foot of building frontage.
 - iv. **General** - Where an above described sign would not be visible from the street by a person of normal visual acuity, a free-standing sign no greater in area than thirty-two (32) square feet may be placed at the entrance to the property. Ground signs shall not exceed six (6) feet in height.
 - v. **Open Space Recreation Areas** - One sign shall be permitted which shall not exceed thirty-two (32) square feet at each vehicular entrance and shall be appropriately landscaped.
 - b. Content: The on-premise identification signs shall contain information relating to the dwelling, farm or ranch, etc. on which it is located.
3. The following types of special signs shall be permitted on private property anywhere on *conservancy* shorelines subject to the given regulations:

- a. **Construction Signs** - Construction signs which identify the architects, engineers, contractors and other individuals or firms involved with the construction, but not including any advertisement of any product, and signs announcing the character of the building enterprise or the purpose for which the building is intended, during the construction period, to a maximum area of sixteen (16) square feet for each firm. The signs shall be confined to the site of the construction and shall be removed within fourteen (14) days after the beginning of the intended use of the project.
- b. **Real Estate** - Real estate signs advertising the sale or lease of the premises or part of the premises on which the signs are displayed, up to a total area of twelve (12) square feet. Such signs shall be removed within fourteen (14) days after the sale or lease.
- c. **Integral** - Names of buildings, dates of erection, monumental citations, commemorative tablets and the like when carved into stone, concrete or similar material or made of bronze, aluminum, or other permanent type construction and made an integral part of the structure.
- d. **Private Traffic Direction** - Signs directing traffic movement onto a premise or within a premise, not exceeding three (3) square feet in area for each sign. Horizontal directional signs on and flush with paved areas are exempt from these standards.
- e. **Small Signs** - Signs not exceeding two (2) square feet in area, attached flat against the building, stationary and not illuminated, announcing only the names and occupation of building tenant.
- f. **Rental Signs** - Rental signs on the premises announcing rooms for rent, room and board, apartment or house for rent and not exceeding four (4) square feet in area.
- g. **Governmental** - Governmental or official notices, flags, emblems or insignia.
- h. **Political** - Political signs provided they do not fall into any of the categories given under Subsection 8.B.4. and provided they are removed within 30 days following the date of the election for which the sign is intended.

- i. **Warning** - Signs posted to warn against hunting, fishing, trespassing, dogs, hazards and similar special warning signs.
4. The following type of signs are prohibited on *conservancy* shorelines and shall be removed within 30 days following notification by the Administrator:
 - a. **Mock Traffic Signs** - Signs which imitate an official traffic sign or signal or which contain the words “stop”, “go slow”, “caution”, “danger”, “warning”, or similar words.
 - b. **Misleading Signs** - Signs which are of a size, location, movement, content, coloring, or manner of illumination which may be confused with or construed as a traffic control device or which hide from view any traffic or street sign or signal or which obstruct the view in any direction at a street or road intersection.
 - c. **Attention-demanding signs** - Signs which contain or consist of pennants, ribbons, streamers, spinners, strings of light bulbs, blinking or fluctuating lights, or other similar or moving devices. These devices when not part of any sign are similarly prohibited.
 - d. **Improperly Mounted Signs** - Signs which are pasted or attached to utility poles, trees, fences, or other signs, rocks or other natural features. Sandwich boards and portable signs.
 - e. **Animated Signs** - Signs which have animated parts or which swing or otherwise move as a result of wind pressure because of the manner of suspension or attachment, except when necessary to maintain the structural integrity of the sign.
5. All non-conforming signs in place at the time of adoption of this Master Program shall be removed or made conforming within 3 years from the adoption date. Non-conforming signs established during the three year period following the adoption of this Master Program shall be removed or made conforming within 3 years from the adoption date. Non-conforming signs existing after 3 years from the adoption date shall be removed or made conforming by the owner of the property on which the sign is located. Removal or conformance shall be within 30 days of notification by the Administrator to the property owner. If the owner of the

property is not found or refuses receipt of the notice, the Administrator shall post the sign and property upon which it is located with a notice that the sign must be removed or made conforming. If the sign is not removed or made conforming within 30 days after such posting, the Administrator, or the county sheriff, or the chief of police of any city or town shall destroy the sign, and for that purpose may enter upon private property without incurring liability for doing so.

C. **Rural Environment**

1. Subsection 8.B.1. through Subsection 8.B.5. shall apply on *rural* shorelines.

D. **Urban Environment**

1. Subsection 8.B.1. through Subsection 8.B.5. shall apply on *urban* shorelines.

2. In addition to Subsection 8.B.1. above, the following types of on-premise advertising or identification signs are permitted anywhere on urban shorelines subject to the given regulations:

a. Size of sign:

- i. **Single-Family Dwelling** - One sign not exceeding two (2) square feet in area.
- ii. **Multi-Family Dwellings, Offices, Clinics, Schools, Churches and Other Public and/or Semi-Public Buildings** - The total sign area allowed per property shall not exceed twelve (12) times the square root of the building frontage. In the case of multiple occupancy of a building, it shall be the responsibility of the building owner to distribute the allowed sign area between the various occupants.
- iii. **Special Residential Streets or Residential Neighborhoods** - Permanent identification signs not exceeding twelve (12) square feet may be attached to a wall or fence at each vehicular entrance, and shall be appropriately landscaped.
- iv. **Mobile Home Parks** - One identification sign per entrance with a maximum sign size of sixteen (16)

square feet and a maximum sign height of five (5) feet shall be *permitted*.

- v. **Business and Other Commercial Buildings** - The total sign area permitted shall not exceed twelve (12) times the square root of the building frontage. In the case of multiple occupancy of a building, it shall be the owner's responsibility to distribute the permitted sign area between the various occupants. The maximum area of an individual ground sign shall be fifty (50) square feet. Where frontage is on more than one street, only the signs computed with respect to the frontage on a street shall fact that street. Frontage on a freeway or limited access highway which provides no access to the property cannot be used to compute sign area.
 - vi. Signs may be on the vertical facts of marquees but no part of the sign shall project above the vertical marquee face. Signs oriented to pedestrian traffic may be suspended below the surface of the marquee not more than 12 inches.
- b. Content: Signs for apartments, offices, and all other uses may contain the building name and related information.

SECTION 9 - MINING

A. Natural Environment

- 1. Mining shall be prohibited on *natural* shorelines.

B. Conservancy Environment

- 1. Mining operations which do not substantially change the character of the environment are permitted on *conservancy* shorelines.
- 2. Any person proposing to undertake or engage in a mining operation except as provided in Subsection 9.B.4. below shall apply for a permit.
- 3. A permit for a mining operation may be granted subject to the following regulations:
 - a. The operator of a surface mine, which is subject to the 1970 Surface Mined Land Reclamation Act, shall present to the

COUNTY one copy each of the surface mining plan and of the reclamation plan as provided in RCW 78.44.

- b. A surface mining plan or a reclamation plan judged to be insufficient for the protection or restoration of the shoreline environment shall be grounds for denial of a permit.
 - c. Any gravel removal alongside, upstream or downstream from spawning areas shall be in conformance with the technical provisions of the Hydraulics Project approval by the Washington State Department of Fish and Wildlife.
 - d. The proposal must comply with the permit criteria of Section 27.D.12.
4. Removal of sand from the ocean beaches in removal operations which have a value of less than \$1,000 shall be exempt from the permit requirements of the Act but shall be subject to the following regulations:
- a. Digging of sand shall be to a depth no greater than eighteen (18) inches below the surface.
 - b. Digging of sand shall be limited to the least sensitive biophysical areas of the beach, i.e. the uppermost wet sand area of the beach between the mean high tide line and a line 50 feet westward of the grass line.
 - c. There shall be no sand removal from the primary of secondary dune, unless allowed under Section 21.
5. Written permission of the landowner shall be prior to removing sand from ocean, bay lake or river beaches.

C. Rural Environment

- 1. Mining operations are permitted on *rural* shorelines subject to Subsections 9.B.2., 9.B.3., and 9.B.4. and insofar as they do not substantially change the character of the *rural* environment.

D. Urban Environment

- 1. Mining operations are permitted on *urban* shorelines subject to Subsections 9.B.2., 9.B.3., and 9.B.4.

SECTION 10 - MARINAS

A. Natural Environment

1. Marinas shall be prohibited on *natural* shorelines.

B. Conservancy Environment

1. Marinas shall be prohibited on *conservancy* shorelines.

C. Rural Environment

1. Marinas which can be sited, designed and built in such a way as to minimize conflicts with agricultural and other uses of rural shorelines which require open space are permitted on *rural* shorelines.
2. Any person proposing to undertake marina development, construction, expansion and/or alteration, or any phase thereof which constitutes a complete project, shall apply for a permit.
3. A permit for marina development, construction, expansion and/or alteration or, any phase thereof which constitute a complete project, may be granted subject to the following regulations:
 - a. The “Criteria Governing the Design of . . . Marinas . . . for Protection of Fish and Shellfish Resources” as adopted by the Washington State Department of Fish and Wildlife and applied to the region of the state which includes Pacific County, which criteria are incorporated herein by reference, shall be complied with.
 - b. Sewage pump-out and treatment facilities acceptable to local and state public health authorities shall be installed within two years of the establishment of U.S. Coast Guard regulations on marine sanitation devices or at the beginning of operations of any new marina or of an expansion to and “existing” marina, whichever date is latest, unless similar sewage treatment facilities exist within 2,000 yards of the marina.

D. Urban Environment

1. Marinas which can be sited, designed and built in such a way as to minimize conflicts with other urban uses of shorelines are permitted on *urban* shorelines.

2. Subsections 10.C.2. and 10.C.3. shall apply.

SECTION 11 - RESIDENTIAL DEVELOPMENT

The Act specifically exempts “construction on wetlands by an owner, lessee or contract purchaser of a single-family residence for his own use or for the use of his family...” from its permit requirements. However, even though single-family homes are not substantial development, the intent of the Act (RCW 90.58.020 and 90.58.100) establishes a basis for regulations them. Minimum lot areas shall be as specified in the zoning Master Program.

A. Natural Environment

1. Residential uses shall be prohibited on *natural* shorelines.

B. Conservancy Environment

1. Multi-family and single-family residences are permitted on conservancy shorelines subject to the following regulations:
 - a. Minimum lot width at the property line nearest highwater shall not be less than 75 percent of the square root of lot area or 200 feet, whichever distance is greater.
 - b. Residential structures shall be setback 25 feet landward from the forest line on tidal waters of Willapa Bay. On man-made canals and lakes residential setbacks shall be 25 feet from the ordinary high water mark. On natural lakes and rivers, residential setbacks shall be 100 feet from the ordinary high water mark.
 - c. No residential structure shall exceed a height of 35 feet above average grade level.
 - d. Parking facilities shall not be constructed shoreward of the upland side of a residential structure.
2. On shorelines exposed to tidal action and where the groundwater table shall not be significantly lowered by the construction of drainage facilities or by pumping at rates which may cause intrusion of salt water. It shall be the responsibility of the property owner to demonstrate that drainage or pumping facilities will not unduly deplete the ground water resource or cause intrusion of salt water.

3. Subdivisions of land coming under the subdivision Master Program shall be subject to the following regulations:
 - a. Land modification shall be controlled to minimize erosion and sedimentation.
 - b. Shoreline vegetation in the subdivision shall be retained and protected to the maximum feasible extent during construction of subdivision roads and utilities. Shorelines vegetation, contour and slope shall be restored to a stable condition within one year after construction is completed, that stable condition being as near to the natural condition as possible.

C. Rural Environment

1. Subsection 11.B.1. shall apply, except for Subsection 11.B.1.a..
 - a. Minimum lot width at the property line nearest high water shall be not less than 75% of the square root of lot area or 140 feet, whichever distance is greater.
2. Subsections 11.B.2. and 11.B.3. shall apply.

D. Urban Environment

1. Multi-family and single-family residences shall be permitted on urban shorelines, subject to the following regulations:
 - a. Minimum lot width at the property line shall not be less than 75% of the square root of lot area.
 - b. No residential structure shall be constructed closer than 25 feet from the ordinary high water mark.
2. Subsections 11.B.2. and 11.B.3. shall apply.

SECTION 12 - ROADS

Logging roads, being a special category of roads, are regulated in Section 6 on forest management practices.

A. Natural Environment

1. Roads shall be prohibited on *natural* shorelines except where unavoidably necessary.
2. A permit for road construction or expansion may be granted subject to Subsection 12.B.2.

B. Conservancy Environment

1. Where unavoidable and/or where necessary, construction of public roads and bridges is permitted on *conservancy* shorelines and shall be subject to the permit requirements of the Act.
2. A permit for road construction or expansion may be granted subject to the following regulations:
 - a. Demonstration of compliance with any federal or state permits, as required, by presentation of a copy of each permit or by any other means satisfactory to the Administrator.
 - b. Filling of tidelands or tidal marshes to provide for a road right-of-way is permitted where there are no alternative routes which are economically or topographically feasible.
3. Private access roads shall be subject to the regulations for logging roads under forest management Subsection 6.B.8.
4. The spraying of pesticides and herbicides along roads in shoreline areas shall be subject to the notification procedures and the regulations for apply chemicals described in Subsection 4.B.4. and 4.B.5.

C. Rural Environment

1. Subsections 12.B.1., 12.B.2., and 12.B.3. shall apply.

D. Urban Environment

1. Subsection 12.B.2. shall apply.

SECTION 13 - UTILITIES

A. Natural Environment

1. Utility systems, such as a long-range transmission lines, distribution lines, and similar facilities are permitted on *natural* shorelines where unavoidably necessary.
2. A permit may be granted subject to the following regulations:
 - a. Where such utility systems cross shoreline areas, clearing necessary for installation or maintenance shall be kept to the minimum width necessary to prevent interference by trees and other vegetation with the proposed facilities.
 - b. Upon completion of installation of such utility systems or of any maintenance project which disrupts the environment, the disturbed area shall be regarded to compatibility with the natural terrain and replanted to prevent erosion and provide an attractive, harmonious vegetation cover.

B. Conservancy Environment

1. Utility systems such as long-range transmission lines, distribution lines, pipelines, sewer trunk lines, water main lines, and similar facilities are permitted on *conservancy* shorelines provided they are oriented to cross shoreline areas and subject to Subsection 13.A.2.

C. Rural Environment

1. Subsection 13.B.1. shall apply to *rural* shorelines.

D. Urban Environment

1. Subsection 13.A.2. shall apply to *urban* shorelines.

SECTION 14 - PORTS AND WATER-RELATED INDUSTRIES

A. Natural Environment

1. Deep-draft ports or water-related industries other than those activities covered in other sections of this program shall be prohibited on *natural* shorelines.

B. Conservancy Environment

1. Deep-draft ports or water-related industries, other than those activities covered in other sections of this Master Program, shall be prohibited on *conservancy* shorelines.
2. Log storage areas are permitted subject to Subsection 14.D.4.

C. Rural Environment

1. Deep-draft ports or water-related industries, other than those activities covered in other sections of this Master Program, shall be prohibited on *rural* shorelines.
2. Log storage areas are permitted subject to Subsection 14.D.4.

D. Urban Environment

1. Port facilities and water-related industries are permitted on *urban* shorelines.
2. Any person proposing development, expansion, or alteration, or any phase thereof which constitutes a complete project for a port facility or water-related industry shall apply for a permit.
3. A permit for a port facility or water-related industry, or any expansion or alteration thereof which constitutes a complete project, may be granted a permit subject to the following regulations:
 - a. Demonstration of compliance with the regulations specified on any federal and state permits required for such facilities and operations by presentation of a copy of each permit or other means satisfactory to the Administrator.
4. Water storage of lots is permitted subject to the following minimum regulations:
 - a. When no feasible dry land storage area is available, emergency or short-term storage of logs may be in water.
 - b. Operation shall be in accordance with applicable recommendations listed on pages 3 and 4 of the publication *Log Storage and Rafting in Public Waters*, a task force report approved by the Pacific Northwest Pollution Control Council, August 1971.

5. Dry land storage of logs is permitted.
6. Support facilities associated with an ocean use must comply with the applicable regulations in Section 27 Ocean Resources.

SECTION 15 - SHORELINE WORKS AND STRUCTURES

A. Natural Environment

1. SWS shall be prohibited on *natural* shorelines, except where necessary to protect or preserve the character of that environment.

B. Conservancy Environment

1. SWS are permitted on *conservancy* shorelines where they do not substantially change the character of the environment and where they are a necessary part of a project which is clearly dependent on a location near or adjacent to a body of water.
2. SWS allowed under Subsection 15.B.1 shall comply with all applicable standards and regulations given under Subsection 15.C.2.

C. Rural Environment

1. SWS are permitted anywhere on *rural* shorelines subject to the regulations given under Subsection 15.C.2., provided they do not substantially change the character of the environment and are part of a project which is permitted by other provisions of this Master Program.
2. SWS shall be subject to the following regulations, where applicable:
 - a. SWS shall conform to the standards specified on any Federal or State permits required for such projects. SWS not requiring Federal or State permits shall, as a condition or obtaining a permit, have similar standards imposed.
 - b. The "Criteria Governing the Design of Bulkheads, Landfills and Marinas . . . for Protection of Fish and Shellfish Resources," as adopted by the Washington State Department of Fish and Wildlife and applied to that region of the State which includes Pacific County, which criteria

are incorporated herein by reference, shall be complied with.

- c. The builder of any shoreline protection structure shall be responsible for determining in advance the nature and extent of any possible adverse effects on fish and wildlife or on the property of others caused by his construction and shall propose and take all necessary actions to minimize such effects.
- d. Individually owned, single-residence type piers, boat docks, floats, platforms and similar moorage facilities are permitted where it can be shown that a joint-use moorage facility is not feasible and that no public launching ramp or commercial moorage facility exists within a reasonable distance.
- e. Joint-use moorage facility shall be encouraged for subdivisions, motels, multi-family residences, or commercial and industrial enterprises in close proximity of each other.

D. Urban Environment

- 1. SWS are permitted anywhere on *urban* shorelines.

SECTION 16 - LANDFILL AND DREDGING

A. Natural Environment

- 1. Dredging operations or landfills shall be prohibited on *natural* shorelines, except where necessary to protect or preserve the character of that environment or where operations do not change the character of that environment.

B. Conservancy Environment

- 1. Dredging operation or landfills shall be prohibited on tidal wetlands.
- 2. Dredging operations or landfills allowed under Subsection 16.B.1. shall comply with all applicable standards and regulations given under Subsections 16.D.2. and 16.D.3. below.

C. **Ocean Environment**

1. Ocean disposal shall comply with the applicable regulations in Section 27.

D. **Rural Environment**

1. Dredging operations or landfills are permitted on *rural* shorelines subject to the regulations below, provided they do not substantially change the character of the environment and are accessory to a project which is allowed by other provisions of the Master Program.
2. All dredging or spoil disposal operations shall be subject to the following regulations:
 - a. Dredging operations shall conform to the operating standards on any federal and state permits required for such operations. Operations not requiring federal or state permits shall have similar standards imposed as conditions of obtaining a permit.
 - b. Dredge spoils exceeding the Environmental Protection Agency criteria for toxic sediments shall be disposed of on land. The results of chemical and physical analysis of the spoil material shall be forwarded to the Administrator prior to the beginning of dredging operations.
 - c. Dredge spoils disposed of on land shall be placed only in areas within existing diked lands protected from flooding by tidegates, identified as disposal sites on the shoreline map or on a permit granted for a specific disposal operation. Disposal sites shall be selected to minimize detrimental effects on the shoreline environment. In particular, the area of productive wetlands affected shall be kept to a minimum in the selection of suitable disposal sites.
 - d. Disposal sites which have been completely filled shall be drained, tilled and planted by the second growing season following filling, if possible, unless specific plans for other uses of the filled land are submitted to the Administrator within one year of filling.

3. All landfills shall be subject to the following standards and regulations:
 - a. The “Criteria Governing the Design of . . . Landfills . . . for Protection of Fish and Shellfish Resources” adopted by the Washington State Department of Fish and Wildlife and applied to that region of the state which includes Pacific County, which criteria are incorporated herein by reference, shall be complied with.
 - b. Landfills shall consist of clean materials with a minimum potential for degrading water quality.
 - c. Landfills shall be protected against erosion with retaining walls or similar structures or by vegetation established, if possible, during the first growing season following completion of the landfill.
 - d. Filling in associated wetlands or waterward of the ordinary high water mark to provide for soil absorption systems (drainfields) or for the purpose of meeting setback requirements shall be prohibited. Except, that on existing dry uplands fill may be placed for the purpose of constructing a mound system, as required by local health regulations.

E. Urban Environment

1. Dredging or landfill operations are permitted on *urban* shorelines.
2. Subsections 16.C.2. and 16.C.3. shall apply.

SECTION 17 - SOLID WASTE DISPOSAL

Solid-waste disposal sites shall be prohibited on all shorelines, except that wood-waste dumps are permitted on *urban* shorelines.

SECTION 18 - RECREATION

Except for those facilities which require a location adjacent to a body of water, setback and height regulations on all shorelines for recreational facilities shall correspond to those for single-family residences.

A. Natural Environment

1. Only very low-intensity recreation uses are permitted on *natural* shorelines, subject to the following regulations:
 - a. A recreational facility or structure which changes or detracts from the character of the local environment shall be prohibited.
 - b. Roads and parking facilities shall not be located within the shoreline jurisdiction.

B. Conservancy Environment

1. Low-intensity recreational uses are permitted on *conservancy* shorelines, subject to the following regulations:
 - a. A recreational facility or structure which changes or detracts from the character of the local environment shall be prohibited.
 - b. Access roads to recreational facilities shall be subject to the regulations for logging roads in Subsection 6.A.8., except that maximum widths shall be 15 feet for single-lane roads and 25 feet for doublelane roads.
 - c. Parking facilities shall remain outside the shoreline jurisdiction except where parking elsewhere is made impractical by topography.

C. Rural Environment

1. Low to medium intensity recreational uses are permitted on *rural* shorelines, subject to the following regulations:
 - a. Subsection 18.B.1.a. shall apply.
 - b. Subsection 18.B.1.b.. shall apply.
 - c. Parking lots with spaces for 10 or more cars shall not be located within 100 feet of the ordinary high water mark.

D. Urban Environment

1. Any recreational use shall be permitted on *urban* shorelines, subject to the following regulations:
 - a. Subsection 18.B.1.a. shall apply.
 - b. Subsection 18.B.1.b. shall apply.
 - c. Parking lots with spaces for 10 or more cars shall not be located within 30 feet of the ordinary high water mark.

SECTION 19 - FLOOD PLAINS

- A. The effects upon public health, safety and general welfare of any uses proposed for flood hazard areas shall be evaluated in light of the policies given above and of the regulations contained herein and Pacific County Flood Damage Prevention Ordinance No. 71 or its successor.
- B. In determining the appropriateness of any proposed use in a flood hazard area, the following shall be considered:
 1. The danger to life and property due to increase flood heights or velocities caused by encroachments.
 2. The danger that materials may be swept on to other lands or downstream to the injury of others.
 3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
 4. The susceptibility of the proposed use and its contents to flood damage and the effect of such damage on the individual owner.
 5. The importance of the services provided by the proposed use to the community.
 6. The requirements of the use for a waterfront location.
 7. The availability of alternative locations not subject to flooding for the proposed use.
 8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

9. The safety of access to the property in times of flood for ordinary and emergency vehicles.
 10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site.
 11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities such as sewer, gas, electrical and water systems, and streets and bridges.
 12. Such other factors which are relevant to the policy of this Master Program.
- C. The finished elevation of proposed streets shall be such as to allow safe access for ordinary and emergency vehicles in times of flood. Drainage opening shall be sufficient to discharge flood flows without unduly increasing flood heights.

SECTION 20 - SEWAGE COLLECTION AND TREATMENT

- A. Sewage disposal facilities for any proposed use shall meet all applicable state and local regulations, including those of the Department of Social and Health Services, Department of Ecology, Pacific County Board of Health and those found in zoning and subdivision ordinances.
- B. If a community sewage collection and treatment system is located on or near a proposed use, connection shall be made to that system and an individual sewage disposal facility shall be prohibited.
- C. Any use for which a sewage disposal facility using a soil absorption system (drainfield) is proposed shall be on a lot which at a minimum shall meet the following standard.
1. The lot shall have suitable soils, water table, slope and other physical characteristics as required by the Pacific County Board of Health or applicable state regulations.
 2. The lot shall have sufficient area meeting the requirements in Subsection 20.C.1. above to allow an alternate soil absorption system to be installed should the first one fail or, if applicable, shall exceed the minimum frontage required for a residential development by Section 11, whichever is larger.

3. The lot shall not be located within a flood hazard area as defined under provision Subsection 19.A. herein, except when allowed by the responsible official of the Pacific County Department of Community Development.
- D. Soil absorption systems, (drainfields) shall be prohibited on sites declared unsuitable for that purpose by the responsible official of the Pacific County Department of Community Development.
- E. Standard sewage drainfield (those using a gravity distribution network) shall be prohibited closer than 100 feet from the ordinary high water mark. Sewage drainfields utilizing a system of uniform pressure distribution, approved by the county health department and designed by a qualified professional engineer, registered sanitarian or registered design consultant, may be allowed no closer than 75 feet from the ordinary high water mark. Setbacks greater than 100 feet may be required by the Administrator in order to adequately protect water supplies or water used for producing shellfish or other seafoods.
- F. Filling in associated wetlands or waterward of the ordinary high water mark to provide land for soil absorption systems (drainfields) or for the purpose of meeting setback requirements shall be prohibited. Except, that on existing dry uplands fill may be placed for the purpose of constructing a mound system, as required by local health regulations.
- G. If relocation of septic tanks within a piece of property is necessary because of condemnation or other public action not related to public health and safety regulations, the relocated septic tanks shall be required to conform to Subsection 20.B. through Subsection 20.F. only to the extent possible on that property.

SECTION 21 - DUNES

- A. The following criteria shall be applied within a protective strip of dune land, defined below, which is designated as a *natural* environment on the Map.
 1. The width of the protective strip shall be measured inland from a line drawn along the seaward edge of the natural dune vegetation. Said vegetation line shall be drawn on large scale (1"=400') aerial photographs and in straight line segments of 2,000 feet or more, where possible. Each segment shall lie roughly midway between the extreme positions of the seaward edge of the vegetation and shall be drawn by the Administrator and approved by the Planning Commission. Approximately every five years, the line shall be

reviewed and, if the vegetation has changed significantly, be redrawn.

2. The width of the protective strip shall be 100 feet along all ocean beaches.
 3. Within the protective strip, any use shall be prohibited which in any manner may damage, destroy or remove any sand dune or part thereof or may kill, destroy or remove dune grass, shrubbery or other vegetation growing on the sand dune, except that roads, trails, walkways or other means of access to the beach may be permitted provided their effects on the dune land and vegetation is minimal.
 4. Individual or private means of improved access across the protective strip to the beach shall be prohibited except where it can be shown that a community or joint means of access is not possible and that no public means of improved access exists within 5,000 feet of the proposed facility.
- B. A building setback line shall be established easterly from the protective strip (Subsection 21.A.). Any structure, including the expansion or alteration of existing structures, shall be prohibited seaward of the setback line. However, the dune land between the setback line and the protective strip may be modified subject to the following regulations:
1. Written notification shall be submitted by the land owner to the Administrator on a form to be provided by him prior to beginning of dune modification operations. Such notification shall include the approximate date on which the operation will begin, the location and size of the area to be modified, a description of the operation and any other necessary information required by the Administrator.
 2. Dune modification operations shall not in any manner affect or alter the protective strip of dune land.
 3. Dune modification operations shall not damage or remove the natural vegetation, unless the disturbed area is revegetated or otherwise protected from wind erosion within one growing season following the beginning of operations.
 4. The use of sand for fill shall be permitted provided that the fill takes place within the same parcel of property on which the sand is found.

- C. The building setback lines (Subsection 21.B.) shall be located easterly of the protective strip (Subsection 21.C.) a distance as given below:
1. From North Head to the northern boundary of the Town of Long Beach as it exists on January 1, 1974--200 feet easterly from the Seashore Conservation Line, as surveyed by the State of Washington in 1968 or, where said line was not surveyed, 200 feet landward from the ordinary high water mark.
 2. From the northern boundary of the Town of Long Beach to a line 800 feet south of the boundary between townships 12N and 13N (the northern edge of Surfside Estates)--one fourth (1/4) of the distance from the upland edge of the protective strip (Subsection 21.A.) to the so-called "western boundary of upland ownership" line; except, that wherever the "western boundary of upland ownership" lies westerly of the upland boundary of the protective strip (Subsection 21.A.), the protective strip upland boundary shall be the building setback line.
 3. From the line 800 feet south of the boundary between townships 12N and 13N to southern boundary of public (state) ownership--300 feet.
 4. Ocean coast north of the mouth of the Willapa Bay--300 feet, except on state owned land.
- D. The use restrictions defined under other sections of this Master Program shall apply to the dune land easterly of the building setback line and coming under the jurisdiction of the Act.
- E. Building setbacks, protective strip widths and other environmental designations on state-owned lands shall be as shown on the Shoreline Map.

SECTION 22 - TIDAL WETLANDS OF WILLAPA BAY

- A. Diking and filling of tidal wetlands are substantial developments regardless of their fair market value. Proposals for diking and/or filling shall secure a substantial development permit.
- B. Diking and/or filling shall be confined to wetlands where one of the following circumstances exist:
1. The purpose of the landfill and/or dike is to increase the heights or width of an existing public road.

2. The purpose of the landfill and/or dike is to create a safe bridge approach.
 3. The purpose of the landfill and/or dike is to repair and maintain a private road or dike which serves to protect existing improvements from damage by flood waters.
 4. The purpose of the landfill and/or dike is to repair and maintain an existing dike or fill within which the tidal wetlands are creations not more than seven years old.
- C. Diking and filling of tidal flats and saltmarshes which are not characterized by conditions listed in Subsection 22.B.1. through Subsection 22.B.4. shall be prohibited.

SECTION 23 - COLUMBIA RIVER ESTUARY SEGMENT

A. INTRODUCTION

The provisions herein shall apply to the area defined by the Columbia River Segment of the County's Shoreline Master Program. This section contains provisions that are wholly different than provisions contained in Sections 5, 7, 9 through 16 and 18 of this Master Program.

B. CONSISTENCY

Development in shoreline areas of the Columbia River and its tributaries shall be consistent with Appendix 5, titled *Background, Columbia River Segment*.

C. AQUATIC AND SHORELAND DESIGN MAPS

The Columbia River Segment environmental designations are illustrated on maps titled *Columbia River Segment, Environmental Designation* which are made part of this Master Program by reference.

D. USE AND ACTIVITY REGULATIONS

1. PERMITTED DEVELOPMENT USES AND ACTIVITIES

Tables 1 and 2 listed permitted development uses and activities within the seven management designations created by Subsection 25.B.1. through Subsection 25.B.8. of this Master Program and subject to approval of a substantial development permit. They apply to shorelines of the state along the lower Columbia River and its tributaries as designated by the Columbia River Segment

Environmental Designation maps referenced herein. Permitted development uses and activities are indicated by the “P”. Development uses and activities that are not permitted are indicated by the letter “N” or they are not listed.

Table 1 lists development uses and activities permitted within aquatic areas and Table 2 lists development uses and activities permitted within shorelands.

Uses in the Columbia River Estuary associated with off-shore developments must comply with the Columbia River Estuary Use and Activity Regulations as well as applicable regulations in Section 30 Ocean Resources. Permitted uses in the Columbia River Estuary associated with off-shore developments are reflected in the Ocean Use Activity Matrix, Section 27.D.11.

TABLE 1
USES AND ACTIVITIES PERMITTED IN
AQUATIC AREAS

Environmental Designations

N-a C-a D-a

P	P	P	Restoration - Where designated in Appendix 5, Section 3.
			Aquaculture
P	P	N	Low intensity construction - e.g. temporary, easily removal structures requiring no dredge or fill.
N	P	P	High intensity construction - e.g. water intake and discharge, permanent facilities.
P	P	P	Activities
P	P	P	Education research equipment installation.
			Recreation
P	P	N	Low intensity and water dependent
N	P	P	High intensity and water dependent
P	P	P	Structural shoreline stabilization
			Utilities
N	P	P	Submerged transmission lines
N	P	P	Overhead transmission lines
N	P	P	Sewage outfalls

			Land Transportation
N	P	P	Bridge crossing
N	P	N	Low water bridge
N	N	P	Commercial/Industrial
N	P	P	Communication facilities
N	N	N	Dredge Material disposal where designated in Appendix 5, Section 2.

Environmental Designations

N-a C-a D-a

N	N	N	Log storage
			Dredging - in conformance with Subsection 23.F.22.
N	P	P	New
N	P	P	To obtain fill
N	P	P	Docks
N	N	P	Marinas
			Piling/Dolphin Installation
N	P	P	New
P	P	P	Repair, replacement in kind
N	P	P	Fill - in conformance with Subsection 23.F.25.
N	N	P	Mining and Mineral Extraction
N	P	P	Bankline or Stream Alteration
N	N	P	Dikes/Tidegates - new

TABLE 2
USES AND ACTIVITIES PERMITTED I
SHORELAND AREAS

Environmental Designations

N-s C-s R-s D-s WD-s

P	P	P	P	P	Educational research equipment installation
					Recreation
P	P	P	P	P	Low intensity
N	N	P	P	P	High intensity
P	P	P	P	P	Restoration
N	P	P	P	N	Farm Use
N	P	P	P	P	Accessory improvements connected with docks
N	P	P	P	P	Dredge Material Disposal - in conformance with Appendix 5, Section 2
N	P	P	P	P	Land transportation facilities

Environmental Designations

N-s C-s R-s D-s WD-s

N	P	P	P	P	Utilities in conjunction w/allowed and existing uses
N	P	P	P	P	Aquaculture Facilities
					Commercial/Industrial
N	N	N	P	P	Water-dependent
N	N	N	P	N	Non-water-dependent
N	N	N	P	P	Water-related
N	N	P	P	P	Dikes/Tidegates - new
N	N	P	P	P	Fill
P	P	P	P	N	Timber Propagation and Harvesting

N	N	P	N	N	Mining and Material Extraction and Processing
N	N	P	N	N	Log Storage
N	N	P	P	N	Residential
N	N	N	N	N	Solid Waste Disposal
N	N	P	P	N	Airports
P	P	P	P	P	Excavation to create new water surface
N	N	N	P	P	Accessory improvements connected with marinas
N	P	P	P	P	Communication facilities

2. **AUTHORIZATION OF SIMILAR DEVELOPMENT**

The board may rule that a use not specifically permitted in a management designation shall be permitted if it is similar to the uses allowed in the management designation and if its effect on adjacent properties is substantially the same as the permitted use.

3. **UNREGULATED USES AND ACTIVITIES**

Non-development uses and activities are not intended to be regulated by this Master Program. Non-development uses and activities include but are not limited to water-borne commerce, individual recreation pursuits such as boating, swimming and fishing and all forms of biological planting.

E. **CONFORMANCE WITH DEVELOPMENT STANDARDS**

Every permitted use or activity shall conform with the purpose of the management designation and development standards listed under Subsection 23.F. hereof. Where a proposal involves several uses and activities, the standards applicable to each use and activity shall be conformed to.

F. **DEVELOPMENT STANDARDS**

1. **AGRICULTURE**

Agriculture practices shall comply with Subsection 4.B.2. through Subsection 4.B.5. herein.

2. **AIRPORT**

Terminal stations for aircraft passenger and cargo operations, including runways, towers, and associated structures and systems shall comply with the following:

- a. Airports and associated facilities shall be located so as to minimize adverse impacts in migratory birds flyways and habitat used by resident waterfowl and other birds.

3. **AQUACULTURE**

Aquaculture uses in shoreland and aquatic designation shall comply with the following:

- a. Structures and activities associated with an aquaculture operation shall not interfere with navigation.
- b. Water diversion or other shoreline structures shall not block traditional public access.
- c. Aquaculture facilities shall be designed to minimize their visual impacts and shall not obstruct scenic views.

4. **COMMERCIAL USES**

Commercial uses, in shoreland and aquatic areas should comply with the following:

- a. Parking facilities shall be prohibited over the water or on the immediate shoreline, except upon a finding that no practicable alternative exists. Parking shall be located as far landward as is feasible.
- b. Commercial uses situated on floating structures or on piling shall be located in areas of minimal currents and wave action. Floating structures shall be sited to prevent damage to natural vegetation and they shall not rest on the bottom during tidal cycles or periods of low flow.
- c. Where permitted, commercial uses that are not water-dependent or water-related shall be setback 30 feet from mean high water or the line of nonaquatic vegetation.

- d. Removal of riparian vegetation shall be permitted only when the use requires direct access to water. Temporary removal of riparian vegetation due to construction may be permitted subject to a revegetation plan approved by the county which specifies: (1) temporary stabilization measures (2) methods and timing of revegetation.

5. **DOCK FACILITY**

Dock facilities in the aquatic and shoreland designations shall comply with the following:

- a. New subdivisions which propose moorage shall provide a common moorage facility.
- b. The size of a dock or moorage shall be the minimum necessary.
- c. Covered or enclosed moorages shall secure a Shoreline Substantial Development Conditional Use Permit.
- d. Open pile piers or secured floats shall be used for dock construction.
- e. Floats in tidally influenced areas shall be located in areas of minimal currents and wave action and shall not rest on the bottom during tidal cycles or periods of low flow. Floating structures shall be sited to prevent damage to natural vegetation.
- f. Docks and moorages shall be designed so that adverse hydraulic effects (e.g., alteration of water circulation and sediment transport) at the site and in adjacent areas are minimized.

6. **FLOOD HAZARD**

Construction in flood hazard areas shall comply with Section 19 herein.

7. **FOREST MANAGEMENT**

Forest practices shall comply with Subsection 6.B.1. through Subsection 6.B.12. herein.

8. **INDUSTRIAL AND PORT FACILITIES**

Public or private use of structures for manufacturing, processing, port development, and energy generation facilities shall comply with the following:

- a. Parking facilities shall be prohibited over water or on the immediate shoreline, except upon a finding that because of physical and economic constraints no practicable alternative exists. Even if this demonstration is made, parking must be located as far landward as is feasible.
- b. Industrial uses on floating structures or industrial uses on piling shall be located in areas of minimal currents and wave action. Floating structures shall be sited in order to prevent damage to natural vegetation and they shall not rest on the bottom during tidal cycles or periods of low flow.
- c. Removal of riparian vegetation shall be permitted only where direct access to water is required. Temporary removal of riparian vegetation due to construction may be permitted subject to a revegetation plan approved by the County specifying: (1) temporary stabilization measures and (2) methods and timing of replanting.
- d. Support facilities associated with an ocean use must also comply with the applicable regulations in Section 27 Ocean Resources.

9. **LAND TRANSPORTATION FACILITIES**

Highways, railroads, bridges, and associated structures and signs in aquatic or shoreland designations shall comply with the following:

- a. Land transportation facilities shall be prohibited in aquatic areas except where bridge crossings are needed and where no feasible alternative shoreland or upland route exists.
- b. Adverse impacts of land transportation facilities shall be minimized.
- c. Causeways across aquatic areas shall be prohibited.

- d. Compliance with Section 25 and Subsections 12 (Introduction), 12.B.2.a., 12.B.3., and 12.B.4. contained herein.

10. **LOG STORAGE - IN WATER**

In-water log storage and sorting in aquatic designations shall be prohibited.

11. **LOG STORAGE AND SORTING YARD**

Log storage and sorting yards shall comply with the following:

- a. Unpaved storage yards underlain by permeable soils shall have at least a four foot separation between the yard surface and the winter water table.

12. **MARINA**

Marina facilities shall comply with the following:

- a. The amount of water surface occupied shall be the minimum required. New facilities shall make maximum feasible use of dry land boat moorage.
- b. Means for preventing oil, fuel, and other contaminants from entering the water shall be provided, including shoreland facilities for public dumping of oil and emptying of holding tanks.
- c. New marina facilities shall be located in areas where there is natural or man-made protection from wind, waves, tidal currents, storms, and passing ship wakes. Marinas shall be located or designed to minimize its adverse affects on the natural processes of erosion, sediment transport and/or beach accretion.
- d. Parking shall be located as far landward as is feasible.
- e. Floats shall not be aground on tidal changes or low flow cycle.
- f. An analysis shall be submitted which shows that existing facilities are fully utilized, impractical, or will not satisfy a specific need.

13. **MINING AND MINERAL EXTRACTION**

Mining and mineral extraction shall comply with the following:

- a. Mining and mineral extraction in the Columbia River Estuary must comply with the permit criteria of Section 28.D.12. Proponents for such an activity may be required to submit information as required under Section 27.D.12.
- b. Petroleum exploration, development and production in the Columbia River Estuary must comply with the applicable regulations in Section 27 Ocean Resources.
- c. Unless part of an approved fill project, spills, and stockpiles of materials removed from aquatic areas shall be placed upland.
- d. Temporary removal of riparian vegetation shall be permitted in cases where direct water access is required as part of a mining or mineral extraction operation. Erosion control measures such as seeding, mulching, ditches, dikes, sedimentation basins and silt fences or curtains shall be provided and maintained.

14. **RECREATION**

Recreation uses shall comply with the following:

- a. Recreation uses in waterfront areas shall take maximum advantage of their proximity to the water by providing water access points, water viewing areas and structure design compatible with the aesthetic qualities of the waterfront location.
- b. Recreational uses shall be designed to minimize adverse effects on shoreland habitat, estuarine resources, traffic patterns, parking facilities, surface water and ground water quality. The adverse effects of storm run-off from parking lots shall be minimized.

15. **RESIDENTIAL USES**

Residential uses shall comply with the following:

- a. The setback for residential structures and associated parking shall be 30 feet landward of the aquatic shoreland boundary.
- b. Subdivisions, and mobile home parks shall provide for public pedestrian access to the shoreline.
- c. Where the groundwater is or may be used as a water supply, the level of the ground water table shall not be lowered by the construction of drainage facilities or by pumping rates which may cause intrusion of salt water.

16. **RESTORATION**

Restoration and resource enhancement shall be consistent with Appendix 5, Section 3.

17. **SEWAGE COLLECTIONS AND TREATMENT**

Sewage collection and treatment shall comply with Section 20 herein.

18. **SIGNS**

Signs within aquatic designations and natural shorelands shall conform to Subsections 8.A.1. and 8.A.2. Signs within conservation rural general development and water-dependent development shall conform with Subsections 8.B.1. and 8.B.5. herein.

19. **UTILITY**

Utilities in aquatic or shoreland designations shall comply with the following:

- a. Electrical and communication transmission and distribution lines shall be located underground, unless burial is not feasible.
- b. Above-ground utilities shall be designed to have the least adverse effect on aesthetic characteristics of the area. Interference with public uses and public access to the estuary shall be minimized.
- c. Disturbed stream banks and aquatic and riparian vegetation shall be stabilized and restored.

20. **BANKLINE AND STREAMLINE ALTERATION**

All bankline and streambed alterations shall comply with the following:

- a. An altered water course shall meander and maintain stream surface area. Alteration of sloughs, oxbows, marshes, and riparian vegetation shall be minimized.
- b. Alignments should make maximum use of natural or existing deep water channels, but should not create pockets of stagnant water or other undesirable hydraulic conditions.
- c. Excavation activities in stream bankline areas result in gain expansion of existing aquatic areas shall comply with standards regulating excavation of shorelands for the creation of new water surface area, Subsection 23.F.24.

21. **DIKE**

Dike maintenance, and construction shall comply with the following:

- a. The outside dike face shall be protected to prevent erosion during construction and maintenance. Applicable standards for shoreline stabilization shall be met. Trees, brush and shrubs which jeopardize the dikes should be excluded from revegetation.
- b. New dike alignment and configuration shall not cause an increase in erosion or shoaling in adjacent areas or an appreciable increase in seasonal water levels behind dikes. Channelization of the waterway shall be avoided.
- c. New diking of aquatic areas is subject to the standards for fill.

22. **DREDGING**

Dredging shall comply with the following standards:

- a. Dredging shall be consistent with Appendix 5, Section 2.
- b. Dredging in aquatic areas shall be permitted for:

- i. Navigation or navigational access;
 - ii. A permitted water dependent use;
 - iii. An approved restoration project;
 - iv. Mining or mineral extraction;
 - v. A permitted bridge footing excavation or utility foundation;
 - vi. Maintenance of dikes, tidegates, and tidegate drainage channels.
- c. Dredging activities in estuarine aquatic areas shall demonstrate:
- i. A public need is demonstrated;
 - iii. No alternative upland locations exist;
 - iv. Adverse impacts are minimized.
- d. Dredging shall be the minimum necessary to accomplish the proposed use.
- e. Erosion, sedimentation, increased flood hazard, and other undesirable changes in circulation shall be avoided. Tidal marshes, tidal flats, and other wetlands shall not be adversely affected.
- f. The timing of dredging and dredged material disposal in aquatic areas shall minimize interference with commercial recreational fishing activities. Dredging and dredged material disposal shall occur during periods of adequate river flow.

23. DREDGE MATERIAL DISPOSAL

Dredge material disposal in aquatic and shoreland areas shall comply with the following:

- a. Dredge material disposal shall be consistent with Appendix 5, Section 2.

- b. In-water estuary and ocean disposal of dredged materials shall:
 - i. Demonstrate the need for the proposed action and the availability and desirability of alternate sites and methods of disposal;
 - ii. Demonstrate that the sediment size and chemical characteristics of the material proposed for inwater disposal is substantially the same as the substrate in the disposal area;
- c. Flow land disposal sites shall be in areas identified as low in benthic productivity.
- d. Ocean disposal sites shall be conducted so that:
 - i. Interference with sport and commercial fishing is minimized;
 - ii. The activity complies with the applicable regulations in Section 27 Ocean Resources;
- e. For land disposal:
 - i. Surface runoff shall be controlled to protect water quality and prevent sedimentation of adjacent water bodies, wetlands and drainageways. Disposal runoff water shall enter the receiving waterway through a controlled outfall at a location with adequate circulation and flushing. Underground springs and aquifers shall be identified and protected.
 - ii. Dikes shall be constructed and form a sufficiently large containment area to encourage property “ponding” and to prevent the return of dredged materials into the waterway or estuary. Containment ponds shall be designed to maintain at least one foot of standing water.
- f. Land disposal sites that are not intended for immediate developments, including sites which will be reused for dredged material disposal, shall be revegetated.

- g. The final height and slope after each use of a land dredged material site:
 - i. Shall not enlarge itself by sloughing and eroding into adjacent aquatic areas;
 - ii. Shall minimize loss of material from the site during storms and freshets;
 - iii. Shall not interfere with the view of nearby residences or the public.

24. **EXCAVATION FOR CREATION OF NEW WATER SURFACE AREA**

- a. Creation of new water surface area shall be allowed only in conjunction with navigation uses, water-dependent development or as a restoration action.
- b. Water quality degradation due to excavation to create new water surface area shall be minimized. Adverse effects on water circulation and exchange, increase in erosion and shoaling conditions, and introduction of contaminants to adjacent aquatic areas resulting from excavation of the area and presence of the new aquatic area shall be minimized.
- c. Sediments and materials generated by the excavation shall be deposited on land in an appropriate manner.
- d. The maximum feasible amount of the new water surface area shall be excavated as an upland site, behind protective berms. The new aquatic area shall be connected to adjacent water areas as the excavation is completed. Excavation shall not result in channelization of the waterway.
- e. Existing public access shall not be reduced.

25. **FILL**

The placement of fill shall comply with the following standards.

- a. A fill shall be the minimum necessary to accomplish the proposed use.
- b. Where existing public access is reduced suitable public access as part of the development shall be provided. Fill

requirements shall not be expanded in order to provide public access.

- b. Fill in aquatic areas shall be permitted only if required:
 - i. In conjunction with a permitted water-department use;
 - ii. In conjunction with a permitted bridge footing or utility foundation;
 - iii. An approved restoration project;
 - iv. Navigational structures and improvements;
 - v. Approach to low water bridges;
 - vi. Flood control structures and structural shoreline stabilization.

In addition, filling in aquatic areas shall be allowed only if:

- vii. A public need is demonstrated;
 - viii. No alternative upland locations exist; and,
 - ix. Adverse impacts due to fill are minimized.
- c. Fill in aquatic areas shall not be permitted for residential uses.

26. **PILING AND DOLPHIN INSTALLATION**

- a. Piling and dolphin installation shall be permitted only in conjunction with a permitted use.
- b. Piling and dolphin installation shall be the minimum necessary to accomplish the proposed use.

27. **SHORELINE STABILIZATION**

The protection of the banks of tidal or non-tidal streams, river or estuarine waters by structural means shall comply with Subsection 15.C.2. herein and the following:

- a. Shoreline stabilization measures shall not restrict existing public access to public shorelines.
- b. Shoreline stabilization measures shall be designed to minimize their impacts on the aesthetic qualities of the shoreline.
- c. Shoreline stabilization shall not be used to increase land surface area. Any extension of the bankline into recognized or existing aquatic areas shall be subject to the standards for fill.
- d. Where structural shoreline stabilization is shown to be necessary, protection of existing banklines with clean, durable erosion resistant material is allowed.

SECTION 24 - ADMINISTRATION

- A. The Director of the Pacific County Department of Community Development or his or her designee(s) shall be Administrator of this Ordinance and shall be responsible for administrating the provisions and requirements of this Ordinance.
- B. The Administrator shall be responsible for: providing information on the Act, this master program and related matters; accepting and processing permit applications and notification; evaluating and preparing final orders granting or denying applications; and doing those tasks necessary for the administration and enforcement of this master program.
- C. The Administrator is hereby authorized to develop a fee schedule to cover all of the activities delineated in this Ordinance. Any proposed fees shall not become effective until approved by resolution of the Pacific County Board of Commissioners. Pacific County shall not accept for review any material supplied by an applicant, nor issue any permit, nor in any manner take any official action, until the appropriate fees are paid.

1. APPLICABILITY OF POLICIES AND REGULATIONS:

No development on shorelines of the state shall be undertaken by any person unless it is consistent with the policies and provisions of the Act and the policies, regulations and other provisions of this master program.

2. **DEVELOPMENT PERMIT - REQUIRED.**

- a. No authorization to undertake use or development on shorelines of the state shall be granted by Pacific County unless upon review of the use of development is determined to be consistent with the policy and provisions of the Act and this master program.
- b. No permit shall be issued for any new or expanded building or structure of more than thirty-five feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines.

3. **PERMIT - EXEMPTIONS.**

The administrator shall issue a written exemption for uses and activities that are categorically excluded from the definition of substantial development after review of a completed application under WAC 173-27-040.

4. **PERMIT - TIME REQUIREMENTS.**

The exercise of a substantial development permit, once approved by Pacific County, and authorized by the Department of Ecology, shall conform to time requirements specified by WAC 173-27-090. Permit revisions that are proposed by an applicant shall conform to WAC 173-27-100.

5. **PERMIT - APPLICATION - REQUIREMENTS.**

Applications for a substantial development permit shall be made to the Administrator by the property owner, lessee, contract purchaser, other person entitled to possession of the property, or by an authorized agent. Applications shall be made on forms supplied by the Administrator and shall conform to the requirements of Pacific County Ordinance No. 145, or any amendments thereto, and WAC 173-27-180.

6. **PERMIT - APPLICATION - NOTICE.**

When the Administrator determines that an application for a shoreline permit is technically complete, the Administrator shall give notice of the application in accordance with RCW 90.58.140(4) and Pacific County Ordinance No. 145, or any amendments thereto.

7. **PERMIT - APPLICATION - REVIEW.**

The Administrator is the review authority for shoreline applications that pertain to residential development (including short subdivisions of land). The Hearings Examiner under Pacific County Ordinance Nos. 150, or any amendments thereto, is the review authority for shoreline applications that pertain to commercial and/or industrial development and for shoreline applications that propose a subdivision of land. If an application is not exempt from the requirements of this Master Program, the review authority shall hold a public hearing on the application. When the Administrator is the review authority, public hearings shall be conducted according to a Type II process under Pacific County Ordinance No. 145, or any amendments thereto. When the Hearings Examiner is the review authority, public hearings shall be conducted according to a Type III process under Pacific County Ordinance No. 145, or any amendments thereto.

The review authority shall decide whether a shoreline substantial development permit, a conditional use permit, or a variance should be granted based solely on the record. The record shall consist of written correspondence submitted on or before the hearing date and of oral testimony received at the hearing.

The review authority shall make its decision by applying the review criteria for substantial development permits, conditional use permits, and variances that are contained in WAC 173-27-150, WAC 173-27-160, and WAC 173-27-170, respectively.

8. **PERMIT - APPLICATION - APPEAL OF FINAL DECISION.**

Any final decision of the Administrator or the Hearings Examiner shall be the final action taken by Pacific County. The appeal provisions listed in Section 13 of Pacific County Ordinance No. 145, or any amendments thereto, shall not apply. Any such final decision shall be filed with the Department of Ecology and shall contain the information delineated in WAC 173-27-130. Any final decision (other than the issuance of an exemption) may be appealed to the Shorelines Hearing Board under the authority of Chapter 90.58 RCW and Chapter 173-27 WAC. Such appeals are governed by the procedures established in RCW 90.58.180, Chapter 461-08 WAC, and the rules of practice and procedure of the Shoreline Hearings Board.

9. **PERMIT - ISSUANCE - CONDITIONS - NOTICE.**

The Administrator or Hearings Examiner shall file any final decision on a permit application with the Pacific County Department of Community Development. The final decision shall contain findings of fact and conclusions of law. The Department of Community Development shall provide the decision to:

- a. The applicant;
- b. The Department of Ecology;
- c. Any person who has submitted written comments on the permit application; and
- d. Any person who has submitted a written request for notification.

In submitting the final decision to the Department of Ecology, the Department of Community Development also shall comply with the requirements of WAC 173-27-130.

Each permit that is issued for a substantial development, conditional use, or variance shall contain a provision which states that construction pursuant to the permit shall not begin and is not authorized until twenty-one (21) days from the date of filing as defined in RCW 90.58.140(C) and WAC 173-27-130, or until all review proceedings initiated within twenty-one (21) days from the date of such filing have been terminated, except as provided in RCW 90.58.140(5)(b).

10. **PERMIT - RESCISSION - NOTICE, HEARING.**

The Administrator may seek to rescind or modify a shoreline permit if he or she determines that (1) a permittee has not complied with the conditions of his or her shorelines permit; (2) a permit was obtained by fraud or misrepresentation; or (3) a permit is being used in a manner that endangers public health or public safety.

If the Administrator seeks to rescind or modify a permit, he or she shall file a motion with the Hearings Examiner that delineates the factual basis which justifies the rescission or modification of a permit. The Administrator shall specify the remedy which is being sought. The relevant documents filed with the Hearings Officer also shall be served on the permittee. The Hearings

Examiner shall hold a hearing on the matter not less than fourteen (14) days nor more than ninety (90) days from the date written notice of the hearing date is served on the permittee, unless otherwise agreed by the permittee in writing. If the notice is mailed to the permittee, the service shall be deemed complete upon the third day following the day upon which they are placed in the mail, unless the third day falls on a Saturday, Sunday or legal holiday, in which event service shall be deemed complete on the first day other than a Saturday, Sunday or legal holiday, following the third day. The Administrator shall have the burden of proving his or her allegations by a preponderance of the evidence. The decision of the Hearings Officer shall be the final action of Pacific County.

11. **CONDITIONAL USES.**

Any use activity or project not specifically permitted or prohibited by this master program and coming under the definition of substantial development shall require a conditional use permit. The review authority may attach to the permit any conditions, modifications and restrictions regarding the location, character and other features of the proposed development as are deemed necessary. Before any conditional use permit is granted, the criteria listed in WAC 173-27-160 must be satisfied.

12. **VARIANCES.**

- a. The review authority shall have authority to grant a variance from the provisions of this master program, provided that any variance granted shall be subject to such conditions as will assure that the adjustment thereby authorized shall not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and in the designated environment in which subject property is situated.
- b. Before any variance is granted, the criteria listed under WAC 173-27-170 must be satisfied.

13. **VIOLATIONS - PENALTIES - CIVIL LIABILITY.**

In addition to the procedures listed in WAC 173-27-240 through WAC 173-27-300, violations of this Shoreline Master Program may be processed according to Pacific County Ordinance No. 141, or any amendments thereto.

14. **FEDERAL AGENCY REVIEW.**

Whenever a project conducted on the shorelines of Pacific County requires review and approval by federal agencies, or otherwise involves a federal agency, Pacific County shall follow the requirements of WAC 173-27-050 and WAC 173-27-060.

15. **SPECIAL PROCEDURES FOR LIMITED UTILITY EXTENSIONS AND BULKHEADS.**

An application for a substantial development permit for a limited utility extension or for the construction of a bulkhead or other measures to protect a single-family residence and its appurtenant structures from shoreline erosion shall be subject to the special procedures contained in WAC 173-27-120.

16. **LETTER OF EXEMPTION.**

The Administrator shall send a letter of exemption, to the applicant and the Department of Ecology, whenever a development is determined by the Administrator to be exempt from the substantial development permit requirements and the development is subject to one or both of the following federal permit requirements:

- a. A U.S. Army Corps of Engineers Section 10 permit under the River and Harbors Act of 1899; or
- b. A Section 404 permit under the Federal Water Pollution Control Act of 1972.

This exemption letter shall conform to the requirements of WAC 173-27-050.

SECTION 25 - ENVIRONMENTS

- A. The geographic extent of the land and water areas subject to the jurisdiction of the Act shall be as designated by criteria given in state regulation WAC 173-22 and by designation in RCW 90.58.030(2). Mapping of the County's shorelines of the state shall illustrate shorelines of statewide significance, shorelines, wetlands and the 100 year flood plain based on the most current technical studies. Separate geographic components of shorelines of the state may be illustrated by maps prepared for the Federal Flood Insurance Administration, maps based on wetland surveys, maps based on hydraulic calculations and maps based on calculations of lake surface areas. The Administrator may publish general

maps which illustrate “shorelines of the state” and which maps state that the actual boundary of shorelines of the state and lands not subject to the jurisdiction of the act shall be based on criteria given in WAC 173-22 and RCW 90.58.030(2).

- B. The shorelines of the state within Pacific County are hereby divided into several districts, hereinafter called environments, as provided for and defined in state regulations (WAC 173-16-040(4)) adopted pursuant to the Act. Those environments and their map symbols are as follows:

.01	Natural	Map symbol = N
.02	Conservancy	Map symbol = C
.03	Rural	Map symbol = R
.04	Urban	Map symbol = U

The shorelines of the state along the lower Columbia River are illustrated by the Columbia River Segment Environmental Designation Maps. This area is divided into eight districts, hereinafter called environmental designation. The environmental designations, including an explanation of the designations, are as follows:

1. **NATURAL AQUATIC - MAP SYMBOL = N-a**

The purpose of the Natural Aquatic Designation is to assure the preservation and protection of; a) significant fish and wildlife habitats, b) essential properties of the estuarine resource and, c) research and education opportunities. The Natural Aquatic Designation included major tracts of tidal marshes, intertidal mud-sand flats, and ecologically important subtidal areas.

2. **CONSERVATION AQUATIC - MAP SYMBOL = C-a**

The purpose of the Conservation Aquatic Designation is to assure the conservation of a) fish and wildlife habitat, b) essential properties of the estuarine resource and, c) the long-term use and conservation of renewable estuarine resources. This designation provides for development that does not require major alterations of the estuary, while providing for the long term use and conservation of renewable estuarine resources. Conservation Aquatic Designations include small areas of tidal marsh, intertidal mud-

sand flats, open water portions of the estuary and areas needed for recreational use.

3. **DEVELOPMENT AQUATIC - MAP SYMBOL = D-a**

The purpose of the Development Aquatic Designation is to provide for navigation and water-dependent industrial and commercial uses. Development Aquatic Designations include existing navigation channel, access channels and turning basins.

4. **NATURAL SHORELANDS - MAPS SYMBOLS = N-s**

The purpose of the Natural Shorelands Designations is to manage shorelands for resource protection, preservation, restoration and recreation, with severe restrictions on the intensity and types of uses.

5. **CONSERVATION SHORELANDS - MAP SYMBOL = C-s**

The Conservation Shorelands Designation is intended for shorelands which provide important resource or ecosystem support functions but because of their value for low intensity recreational or sustained yield resource uses or because of their unsuitability for development should be designated for non-consumptive uses. Non-consumptive uses are those which can utilize resources on a sustained yield basis while minimally reducing opportunities for other uses of the area's resources.

6. **RURAL SHORELANDS - MAP SYMBOL = R-s**

The purpose of the Rural Shorelands Designation is to provide for uses and activities associated with agriculture, timber management and recreation.

7. **GENERAL DEVELOPMENT SHORELANDS - MAP SYMBOL = D-s**

The purpose of the General Development Shorelands Designation is to provide an area when commercial uses are allowed that meet the needs of the immediate residential community.

8. **WATER-DEPENDENT DEVELOPMENT SHORLANDS - MAP SYMBOL = WD-s**

The purpose of the Water-Dependent Development Shorelands Designation is to manage shorelands in urban and jetty areas

especially suited for water-dependent and water-related uses and protect these shorelands for water-dependent industrial, commercial and recreational use.

9. **OCEAN ENVIRONMENT - MAP SYMBOL = OC**

The purpose of the Ocean Environment designation is to protect the unique characteristics of the ocean environment by managing use activities and assuring compatibility between shoreland and ocean uses. The Ocean Environment may allow either multiple water-dependent uses or specific single dominant water-dependent uses in areas of unique conditions. It is designed to promote the wise use of the natural features and resources of ocean waters which are substantially different in character from those of the adjoining uplands, inland marine waters, and backshores. The Ocean Environment are waters of the Pacific Ocean from Cape Disappointment north to the border between Pacific County and Grays Harbor County; and from mean high tide, seaward three miles.

- C. All development and use activities within each environment shall conform to the applicable regulations for that environment as given under Sections 4 through 23 and to all other applicable provisions of this Master Program and the Act.
- D. The above named environments and the boundaries of said environments are shown upon maps titled *Shoreline Map*. The maps are made a part of the Master Program by reference. The Administrator may from time to time republish the maps to incorporate all amendments made by the BOARD as specified under Section 28 herein.
- E. The boundaries of the environments shall be determined by scaling distances on the Shoreline Map or by reference to written definitions given on or attached to the Shoreline Map. Where interpretation is needed as to the exact location of the boundaries as shown on the Shoreline Map, the Administrator shall make the necessary interpretation. If a person wishes to contest the Administrator's decision concerning the location of a boundary, that person may present his case to the Hearings Examiner under Pacific County Ordinance No. 150, or any amendments thereto.
- F. The water areas of lakes, streams and tidal waters, together with the lands underlying them, are hereby placed in the conservancy environment, except that:
 - 1. All public boat channels, boat basins, and other public moorages which have been regularly and lawfully maintained by dredging or

other means prior to the passage of the Act, including the Willapa Bay bar channel and inner bay channel, the Willapa River channel upstream to Raymond, the Bay Center channel and basin, the Tokeland channel and basin, the Nahcotta channel and basin, the Baker Bay channel and Ilwaco basin, and the Chinook channel and basin, are hereby placed in the urban environment.

2. All water areas and the lands underlying them which lie shoreward of harbor lines, whenever established, are hereby placed in the urban environment.
 3. Water areas and the lands underlying them which are adjacent to water-dependent industrial and commercial uses are hereby placed in the rural or urban environment, depending on the classification of the adjacent shore, only to the extent necessary for the construction of facilities serving such uses: Providing, that the area so classified shall be as shall as is practically possible.
 4. All water areas and the lands underlying them which are specifically designated on the Shoreline Map as being in an environment other than conservancy are to be regulated as shown on said Map.
- G. Those areas identified as dredge spoil disposal sites, marked as DS on the Shoreline Map, are hereby placed in the urban environment solely for the purpose of providing locations for the disposal of spoils from channel and boat basin dredging operations and from dredging associated with other water-related uses. Following the last fill at a particular site, that site shall be considered for redesignation by the Board.

ENVIRONMENTAL DESIGNATION MAPS

The shorelines of the state along the Columbia River in Pacific County are divided into the following designations:

Natural Aquatic	Map symbol = N-a
Conservation Aquatic	Map symbol = C-a
Development Aquatic	Map symbol = D-a
Natural Shorelands	Map symbol = N-s
Conservation Shorelands	Map symbol = C-s
Rural Shorelands	Map symbol = R-s

General Development Shorelands Map symbol = D-s

Water-Dependent Development Shorelands Map symbol = WD-s

The boundary between the aquatic and shoreland areas is the line of non-aquatic vegetation or where such a line cannot be determined, it is the ordinary high water mark.

The boundary between aquatic conservation areas and aquatic natural areas is the minus 3 foot contour elevation using MLLW datum.

Dredged material disposal sites 1S, 2S, and 10S are identified on the Environmental Designation Maps and discussed in Appendix 5, Section 2.

Restoration sites 1F, 2F and 5 F are identified on the Environmental Designation Maps are discussed in Appendix 5, Section 3.

SECTION 26 - NONCONFORMING USES

- A. On shorelines of the state there exist structures and related use activities which are lawful before this Master Program was passed or amended, but which would be prohibited, regulated or restricted under the provisions herein or future amendment. It is the intent of this section to generally permit these non-conformities to continue until they are removed, unless otherwise specified under other provisions herein. It is further the intent of this section that non-conformities shall not be enlarged upon, expanded or extended, and shall not be used as grounds for adding other structures and related use activities which are prohibited, regulated, or restricted under the provisions herein, except when allowed under the terms of a permit or variance.

- B. A structure and/or related use activity which was lawful before this Master Program was passed or amended but which is not in conformity with the provisions herein may be continued subject to the following conditions:
 - 1. No such structure or use activity shall be expanded, changed, enlarged or altered unless an enlargement or structural alteration makes the use more conforming or is required by law.

 - 2. If any such structure is destroyed, or removed, every future use of the land on which the structure was located shall conform to the provisions herein.

3. If any such structure is damaged or partially destroyed by fire, explosion or other casualty or act of God to the extent of not more than 50% of its market value at the time when the damage occurred, such structure may be restored and the previous use activity continued subject to all other provisions of this section, EXCEPT, the provisions of Section 20 shall apply and, if the site is in a flood hazard area, the provisions of Section 19 shall apply to all reconstruction.
4. If such use activity is discontinued for twelve (12) consecutive months or more, any future use of the premises shall conform to this Master Program.
5. Upkeep, repair and maintenance of such nonconforming structures is permitted.
6. Such structures or use activities, or adjuncts thereof, which are or become nuisances shall not be entitled to continue as nonconforming uses.
7. Except as provided under Subsection 26.B.6., any structure or use activity which has been permitted as conditional use or as a variance shall be considered a conforming use.

SECTION 27 - OCEAN RESOURCES

If a proposal for ocean use development and associated ocean use facilities involves more than one local jurisdiction, the guidelines in WAC-173-16-064 shall be applied and remain in effect, in addition to the provisions of the local master program. The more stringent regulations shall apply. Ocean uses and activities that will not adversely impact renewable resources shall be given priority over those uses that will.

On-shore facilities associated with an ocean use must comply with not only the applicable regulations below, but any other applicable regulations for the specific use or activity as found in the County's Shoreline Master Program.

A. Natural Environment

1. Ocean use developments or on-shore facilities associated with an ocean use development shall be prohibited in Natural Environment designations except where necessary to protect the physical well-being of the public.

B. Conservancy and Conservation Environments

1. Ocean use developments or on-shore facilities associated with an ocean use development shall be prohibited in Conservancy or Conservation Environment designations, except for the following:
 - a. Activities necessary to protect the physical well-being of the public such as rescue, oil spill clean up, fire suppression and other emergency procedures.
 - b. Ocean transportation must be consistent with the County's Shoreline Master Program. Ocean transportation involving the storage, transfer or transport of petroleum products through Willapa Bay will require a conditional use permit review and shall be reviewed by the Willapa Bay Coordinating Council.

C. Rural Environment

1. Ocean use activities on Rural Shorelands are subject to the provisions of Section 27.B.1.a. and 27.B.1.b.

D. Urban and Development Environments

1. Ocean use activities on Urban Shorelands are subject to the provisions of Section 27.B.1.a. and 27.B.1.b..
2. **Oil and Gas Exploration** - The Department of Ecology issues all permits for oil and gas exploration, as defined in WAC 173-15-020 pursuant to the Shoreline Management Act (RCW 90.58.550). Any support activities associated with an approved exploration activity shall also be subject to the following provisions:
 - a. Ocean use distribution, service and supply vessels and aircraft shall be operated or routed such that they minimize impacts to renewable resources and activities, and avoid environmentally sensitive areas.
 - b. Waste material generated from ocean use exploration, development, oil and gas construction, operation materials, and production activities (i.e., cutting and drilling muds, waste water, solid waste, hazardous waste) shall be disposed of in compliance with federal and state laws.

- c. Parties involved in petroleum exploration, production, storage, or transport in, near or on the waters and shorelands of Pacific County shall develop, acquire approval of, and implement oil spill contingency plans.
3. **Oil and Gas Development** - Oil and gas development shall be allowed in the Ocean Environment as a Conditional Use, subject to the following provisions:
- a. Ocean use distribution, service and supply vessels and aircraft shall be operated or routed such that they minimize impacts to renewable resources and activities, and avoid environmentally sensitive areas.
 - b. Discontinuance or shut-down of oil and gas, mining or energy producing ocean uses shall be done so that impacts to renewable resources are minimized and the seabed is restored to a condition similar to its original state to the maximum extent feasible.
 - c. Waste material generated from ocean use development, oil and gas construction, operation materials, and production activities (i.e., cutting and drilling muds, waste water, solid waste, hazardous waste) shall be disposed of in compliance with federal and state laws.
 - d. All applicants siting on-shore support facilities for oil and gas development and other such heavy industrial facilities shall establish that there are no alternative locations that would be more appropriate or less environmentally damaging, that adverse impacts have been mitigated to the maximum extent possible, and that monetary compensation will be provided to the locality to offset impacts associated with the project that cannot be mitigated, and that national economic and security interests would be adversely affected by not approving the project.
 - e. All pipeline corridors and energy distribution lines shall be located in existing utility right-of-ways and integrated with existing pipeline or electric transmission corridors to the maximum extent feasible unless there are overriding technical constraints or significant social, aesthetic, environmental or economic concerns.

4. **Oil and Gas Production** - Oil and gas production shall be allowed in the Ocean Environment as a Condition Use, subject to the following provisions:
 - a. Ocean use distribution, service and supply vessels and aircraft shall be operated or routed such that they minimize impacts to renewable resources and activities, and avoid environmentally sensitive areas.
 - b. Waste material generated from ocean use development, oil and gas construction, operation materials, and production activities (i.e., cutting and drilling muds, waste water, solid waste, hazardous waste) shall be disposed of in compliance with federal and state laws.
 - c. Parties involved in petroleum exploration, production, storage, or transport in, near or on the waters and shorelands of Pacific County shall develop, acquire approval of, and implement oil spill contingency plans.
 - d. Discontinuance or shut-down of oil and gas, mining or energy producing ocean uses shall be done so that impacts to renewable resources are minimized and the seabed is restored to a condition similar to its original state to the maximum extent feasible.
 - e. All pipeline corridors and energy distribution lines shall be located in existing utility right-of-ways and consolidated with existing pipeline or electric transmission corridors to the maximum extent feasible unless there are overriding technical constraints or significant social, aesthetic, environmental or economic concerns.

5. **Ocean Mining** - Ocean mining shall be allowed in the Ocean Environment as a Conditional Use, subject to the following provisions:
 - a. Discontinuance or shut-down of oil and gas, mining or energy producing ocean uses shall be done so that impacts to renewable resources are minimized and the seabed is restored to a condition similar to its original state to the maximum extent feasible.
 - b. Waste material generated from ocean use development, oil and gas construction, operation materials, and production activities (i.e., cutting and drilling muds, waste water, solid waste, hazardous waste) shall be disposed of in compliance with federal and state laws.

- c. Ocean mining and on-shore mining are prohibited in areas that would adversely impact biological communities, habitats, fishery resources and other renewable resources, or that would alter the natural beach processes such as erosion and lateral beach transport.
 - d. Ocean mining activities shall include all plans for upland processing and transportation.
 - e. Mining and mineral extraction on shoreline and aquatic areas of Willapa Bay and the Columbia River Estuary are addressed in Section 10 and 25, respectively. Proposals must comply however, with the permit criteria of Section 30.60.
6. **Ocean Energy Production** - Ocean energy production activities shall be allowed in the Ocean Environment as a Condition Use, subject to the following provisions:
- a. Ocean use distribution, service and supply vessels and aircraft shall be operated or routed such that they minimize impacts to renewable resources and activities, and avoid environmentally sensitive area.
 - b. All pipeline corridors and energy distribution lines shall be located in existing utility right-of-ways and integrated with existing pipeline or electric transmission corridors to the maximum extent feasible unless there are overriding technical constraints or significant social, aesthetic, environmental or economic concerns.
7. **Ocean Disposal** - Ocean disposal shall be allowed in the Ocean Environment as a Conditional Use, subject to the following provisions:
- a. Ocean disposal shall be allowed only at sites approved by Washington Department of Ecology, Washington Department of Natural Resources, the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers.
 - b. Disposal of Dredged Material in the aquatic areas of the Columbia River Estuary is not considered ocean disposal and must comply with the applicable policies and regulations in Section 23.
8. **Ocean Transportation** - Ocean transportation must be consistent with the County's Shoreline Master Program.
- a. Ocean transportation involving the storage, transfer or transport of petroleum products through Willapa Bay will require a conditional

use permit review and shall be reviewed by the Willapa Bay Coordinating Council.

- b. The transport, or transfer of oil or gas or other mineral via pipeline in the ocean environment, including to and from vessels, ports or on-shore facilities will require a conditional use permit.
 - c. The construction, operation and maintenance of pipelines in the Ocean Environment must also comply with the regulations in Section 27.D.3. and Section 27.D.4.
9. **Ocean Research** - Ocean research activities shall be allowed in the Ocean Environment as a Substantial Development. Any research activity must be consistent with the County’s Shoreline Master Program.
10. **Ocean Salvage** - Ocean salvage activities shall be allowed in Ocean Environments as a Conditional Use, subject to the following provisions:
- a. Non-emergency marine salvage and historic shipwreck salvage activities shall be conducted in a manner that minimizes adverse impacts to the coastal waters environment and renewable resource uses.
11. **Ocean Use Activity Matrix** - The following matrix lists the potential ocean uses and associated support activities that are of concern in the Ocean Resources Management Act (RCW 43.143); the related Ocean Management Guidelines (WAC-16-060); and, that could potentially occur in the Ocean Environment or on the shoreland area. The matrix is to be used only as a tool when reviewing an application for a potential ocean use or associated on-shore facility. All ocean use activities must comply with the applicable regulations. This matrix only focuses on potential ocean use activities.

	NATURAL	CONSERVANCY/ CONSERVATION	RURAL	URBAN/ DEVELOPMENT	OCEAN
OCEAN USE:					
Oil/Gas Exploration*	P	P	P	P	CU
Oil/Gas Development	P	P	P	P	CU
Oil/Gas Production	P	P	P	P	CU
Ocean Mining	P	P	P	P	CU
Ocean Energy Production	P	P	P	P	CU
Ocean Disposal	P	P	P	P	CU
Ocean Transportation Involving the storage, transferring, or transporting of petroleum products in Willapa	CU	CU	CU	CU	CU

Bay					
Ocean Transportation, ** all other	SD	SD	SD	SD	SD
Ocean Research	CU	CU	CU	CU	SD
Ocean Salvage	CU	CU	CU	CU	CU
Pipelines associated with ocean use development	P	P	P	P	CU
Fabrication yards	P	P	P	P	P
Oil/Gas transfer terminals associated with ocean use development and production	P	P	P	P	P
Crew and supply transfer stations	P	P	P	CU	CU

CU = Conditional Use
SD = Substantial Development
P = Prohibited

*Department of Ecology issues permits for oil and gas exploration pursuant to the Shoreline Management Act (RCW 90.58.550).

**The County will not review permits for general ocean transportation but the activity must be consistent with the Shoreline Master Program.

12. **Permit Review Criteria** - Pacific County may permit ocean and associated upland or coastal uses and activities if the criteria listed below are met or exceeded.
- a. There is a demonstrated significant local, state, or national need for the proposed use or activity;
 - b. There is no reasonable alternative to meet the public need for the proposed use or activity;
 - c. There will be no likely long-term significant adverse impacts to coastal or marine resources or uses;
 - d. All reasonable steps are taken to avoid and minimize adverse environmental impacts, with special protection provided for the marine life and resources of the Columbia River and Willapa Bay estuaries;
 - e. All reasonable steps are taken to avoid and minimize adverse social and economic impacts, including impacts on aquaculture, recreation, tourism, navigation, air quality, and recreational, commercial, and tribal fishing;

- f. Compensation is provided to mitigate adverse impacts to coastal resources or uses;
 - g. Plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed; and
 - h. The use or activity complies with all applicable local, state, and federal laws and regulations.
13. The proponent of an ocean use development or associated on-shore facility that could impact coastal waters or shorelines may be required to submit the following information, and any other information deemed necessary by the Shoreline Administrator, in the final permit application package:
- a. An overall development scheme discussing the site plan and proposed management techniques;
 - b. A phasing plan for the staging of development;
 - c. Analysis of potential impacts identified in a SEPA environmental checklist;
 - d. Mitigation plans to address adverse environmental, social and economic uses and resources;
 - e. Analysis of the visibility of the proposed facilities and a plan to minimize or eliminate such impacts;
 - f. Plan for the transport, storage, disposal and clean-up of solid, liquid and hazardous wastes;
 - g. Analysis of the adequacy of the local infrastructure (water, sewer, fire, road) to service the project;
 - h. Analysis demonstrating that the facility will be able to comply with local air pollution control regulations;
 - i. Fire protection plan;
 - j. Oil spill contingency plan if involved in petroleum exploration, production, storage or transportation in, near, or on coastal waters and shorelands;
 - k. Analysis demonstrating the proposed project's consistency with the Shoreline Master Program.

14. All proposed activities and uses with potential to significantly affect any of the shorelines or waters under the jurisdiction of Pacific County may at the discretion of the Shoreline Administrator require a socioeconomic assessment and the development of mitigation measures to analyze and describe the long and shore-term effects of the proposed action to directly stimulate or drain the local economy. This assessment may include but not be limited to gains or losses of jobs and incomes, tourism, agricultural impacts, increased governmental planning and management loads, effects on construction and commercial activity, community support facilities (such as schools, hospitals, health and social services), tax structure, social changes in crime, mental health, crowding, sense of autonomy and other quality of life indicators.
15. Rehabilitation plans or bonds may, at the discretion of the Shoreline Administrator, be required for ocean uses, the plans and amounts based on consideration of closures, reasonably anticipated disasters, inflation, new technology, and potential adverse impacts to commercial and noncommercial resources or coastal uses.

SECTION 28 - MISCELLANEOUS

A. AMENDMENTS

The provisions of this Master Program, including the Shoreline Map, may from time to time be amended as provided under the Act (RCW 90.58.190). Depending on the nature of the proposed changes, amendments shall be processed as a Type III or Type IV procedure under Pacific County Ordinance No. 145, or any amendments thereto.

B. LOCAL PROCESS FOR AMENDING THE SHORELINE MASTER PROGRAM

Prior to submittal of a new or amended master program to the Department of Ecology, Pacific County shall solicit public and agency comment during the drafting of proposed new or amended master programs. The degree of public and agency involvement sought by local government should be gauged according to the level of complexity, anticipated controversy, and range of issues covered in the draft proposal. Local citizen involvement strategies shall meet the requirements of RCW 36.70A.140.

At a minimum, Pacific County shall:

1. Conduct at least one public hearing to consider the draft proposal.

2. Publish notice of the hearing in one or more newspapers of general circulation in the area in which the hearing is to be held. The notice shall include:
 - a. Reference to the authority(s) under which the action(s) is proposed;
 - b. A statement or summary of the proposed changes to the master program;
 - c. The date, time, and location of the hearing, and the manner in which interested persons may present their views; and
 - d. Reference to the availability of the draft proposal for public inspection at the local government office or upon request;
3. Consult with and solicit the comments of any person, group, federal, state, regional, or local agency, and tribes, having interest or responsibilities relating to the subject shorelines or any special expertise with respect to any environmental impact. The consultation process should include adjacent local governments with jurisdiction over common shorelines of the state;
4. Solicit comments on the draft proposal from the Department of Ecology prior to approval. Pacific County shall notify both the Department of Ecology and the Department of Community, Trade, and Economic development of its intent to adopt shoreline policies or regulations, at least sixty days prior to BOARD approval; and
5. Comply with Chapter 43.21C RCW, the State Environmental Policy Act.
6. Enactment of a resolution by the BOARD approving an amendment shall constitute final action of Pacific County. When the action of the BOARD is to deny a request for an amendment, the adoption of the motion shall constitute final action. Written notice of the action shall be forwarded to the Administrator to be attached to the permanent file of the case. The Administrator shall notify the applicant of the final action of the BOARD.
7. No amendment passed by the BOARD shall become effective until the requirements of RCW 90.58.190 are met.

C. STATE PROCESS FOR AMENDING THE SHORELINE MASTER PROGRAM

The Washington State Department of Ecology shall review and approve Shoreline Master Program Amendments according to the requirements of WAC 173-26-120. Any final action of the Department of Ecology may be appealed according to the requirements of WAC 173-26-130.

D. RULES

The BOARD is authorized to adopt such rules as are necessary and appropriate to carry out the provisions of this Master Program.

E. SEVERABILITY

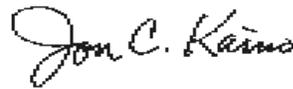
If any provision of this Master Program or its application to any person or legal entity or circumstances is held invalid, the remainder of the Master Program, or the application of the provision to other persons or legal entities or circumstances, shall not be affected.

F. APPROVAL

Approved by the Board of County Commissioners on this 11th day of April, 2000, and signed in authentication of its passage.

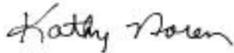
Previous versions of this Master Program are hereby repealed.

BOARD OF COUNTY COMMISSIONERS
PACIFIC COUNTY, WASHINGTON



Jon Kaino, Chairman of the Board

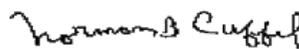
ATTEST:



Clerk of the Board



Pat Hamilton, Commissioner



Norman "Bud" Cuffel, Commissioner

APPENDIX 1

The Designation of Environments, Note #1

The task at hand is to designate all Pacific County shorelines which fall under jurisdiction of the Act into one or another of the four environmental categories - *natural*, *conservancy*, *rural*, and *urban*. These categories have been defined by the Department of Ecology in its *Final Guidelines* (pp. 4 and 5). In abbreviated form these definitions are as follows:

- 1) *natural* “relatively free of human influence . . . Any activity which would change . . . the existing situation would be desirable only if such a change would contribute to the preservation of the existing character. The primary determinant for designating an area as a *natural* environment is the . . . presence of some unique natural or cultural features considered valuable in their natural or original condition which (is) relatively intolerant of intensive human use.”

- 2) *conservancy* “to protect, conserve and manage existing natural resources and valuable historic and cultural areas in order to ensure a continuous flow of recreational benefits to the public and to achieve sustained resources utilization . . . examples of use that might be predominant in a *conservancy* environment include diffuse outdoor recreation activities, timber harvesting on a sustained-yield basis, passive agricultural uses such as pasture and range . . . *conservancy* would also be the most suitable designation for those areas which present too severe biophysical limitations to be designated *rural* or *urban* . . .

- 3) *rural* “to protect agricultural land from urban expansion, restrict intensive development along undeveloped shorelines, . . . and maintain open spaces and opportunities for recreational uses is intended for those areas characterized by . . . or having a high capability to support . . . agricultural practices and intensive recreational development. New developments in a rural environment are to reflect the character of the surrounding area by limiting residential density, providing permanent open space

and by maintaining adequate building setbacks from the water . . .”

- 4) *urban* “to ensure optimum utilization of shorelines within urbanized areas by providing for intensive public use and by managing development so that it enhances and maintains shorelines for a multiplicity of urban uses. The *urban* environment is an area of high intensity land use including residential, commercial and industrial development. (It) does not necessarily include all shorelines within an incorporated city . . . Because shorelines suitable for urban uses are limited, emphasis should be given to development within already developed areas . . . priority is also to be given to planning for visual and physical access (by the public) to water in the *urban* environment . . . industrial and commercial facilities should be designed to permit pedestrian waterfront activities.”

These definitions have been used already to guide the preparation of the use regulations included in the Program. This means that there already exists a series of regulations designed for those shorelines which we decide to designate *natural*, another series of regulations for “shorelines” we will designate *conservancy*, another for *rural* shorelines and one for *urban*. Thus, looking over each series of regulations, we can get a further idea of what each kind of shoreline will be like according to how and to what degree it will be regulated.

Once familiar with what each designation will mean in practical, concrete terms, the question is which types of country shorelines should be given which designation? The staff suggests the following guidelines to help us answer this question.

- 1) Kinds of shorelines which we might designate *natural* are those which are valuable in their present condition because they are rare, unique, especially beautiful or of great historical or archeological importance such that it wouldn't be worth changing their present condition or function. For example:
 - a) a shoreline of old growth timber
 - b) Leadbetter Point and other important wildlife areas
 - c) a publicly-owned shoreline which is almost untouched at present
 - d) those tidelands and tidal marshes which are valuable in their natural state

- e) Unstable steep slopes
 - f) certain water supply watershed areas
 - g) a protective strip of duneland
- 2) Kinds of shorelines which we might designate *conservancy* are those where the permitted uses do not drastically, permanently or irreversibly change the character of the shoreline. Such uses would include timber harvesting, low-density residential development, low-intensity recreational uses, agriculture (where the land is largely cleared already and not extensive additional clearing is required), and any other uses which may have noticeable but not permanently overwhelming impact. For example:
- a) all shorelines where timber harvesting is, has been or is anticipated to be practiced
 - b) shorelines where there are opportunities for low-intensity recreation
 - c) shorelines where there is low-density year-round or summertime habitation
 - d) unprotected flood plain areas
 - e) tidelands not designated as *natural*
 - f) steam beds, except for these adjacent to urban environments.
- 3) Kinds of shorelines that we might designate *rural* are those which are being used for have the capacity to be uses for farming, for residences, for various kinds of recreational facilities including boat-launching ramps, resorts, tourist-serving commercial facilities, etc. For example:
- a) farmland and diked tidelands along the Willapa River and Bay and other rivers drained into the Bay
 - b) the unincorporated stretches of the Long Beach Peninsula where residential use exists or is planned, except near existing areas of urban density and except for a protective strip of dunelands

- 4) Kinds of shorelines that we might designate urban are those where there already is a diversity of high density uses those which could support intensive and varied use. Such shorelines would include:
 - a) most of the presently incorporated shorelines except perhaps those areas within municipalities which there is a common desire to preserve for low-intensity and/or recreational uses.
 - b) non-incorporated shorelines where urban densities exist or are expected to exist in the near future.

APPENDIX 2

The Designation of Environments, Note #2

Note #1 summarized the definitions of the four environments and also suggested some guidelines, which were generally accepted, for deciding which types of shorelines should go into which environments. This note describes how we have made tentative designations and show them on maps.

The nature of the shoreline varies both along and perpendicular to the shore. Areas which are submerged daily, several times a year, seldom or never must be distinguished. Areas behind a dike must be distinguished from undiked areas; low lying land from well drained upland; and so on. Marshy lands, such as those around the mouths of the Bone or Niawiakum Rivers, are vital to maintaining the productivity of offshore oyster beds as well as being useful for agriculture. Dikes lands and river valley lands are valuable for pasture. Much land on the Peninsula is suitable for development but is unlikely to achieve urban densities in the foreseeable future. Those are just some examples that come to mind.

Because of complexities of the kind mentioned above, we have divided the conservancy and rural designations into several subcategories. Those subcategories give an indication as to why a particular shoreline is put into the conservancy ("D") or rural ("R") designation. The subcategories are on the maps only for information purposes; the regulations do not include subcategories. The subcategories are described in the following table.

Map designations are as follows:

	<u>Map Symbol</u>	<u>Name</u>	<u>Description</u>
1.	N	Natural	(see Appendix 1)
2.	C	Conservancy	(see Appendix 1)
	(C1)	Conservancy	Some public recreational land; private land which appears very unsuitable for most development due to slope, slide areas, regular flooding, etc.; land not coming under C2 or C3.
	(C2)	Conservancy	Land which is very important to the production of food products (for man) in its natural state-- such as marshy, undiked pasture or scrub lowlands along the Bay

and tidal waters. Food products, in this case, includes both those resulting from its use as pasture and those resulting from the land's contribution of nutrients to the Bay's marine life--oysters, crabs, shripm, clams, etc.--and to waterfowl.

	(C3)	Conserancy	Land which is very important to the production of forest products-- primarily upland timber.
3.	R	Rural	(See Appendix 1)
	(R1)	Rural	Land suitable for (or in) development for intensive recreational uses, for home-sites, or other forms of development, but which is neither at urban density now nor likely to reach urban density in the forseeable future. Land not coming under R2.
	(R2)	Rural	Agricultural land important to the production of food products in its improved state--such as diked pasture and farmlands in the river valleys.
4.	U	Urban	(See Appendix 1)

NOTE: Those shorelines not specifically designated on a map are placed in the conservancy environment.

APPENDIX 3

**PACIFIC COUNTY
SHORELINE MASTER PROGRAM - SORELINE MAP**

ENVIRONMENTAL DESIGNATION MAPS--DETAILED

The attached maps show into which environment--natural, conservancy, rural or urban--each mile of shoreline in Pacific County has been designated. Appendix 1 and Appendix 2 explain the approach used in designating and mapping these shorelines. The attached maps do not show all areas under the jurisdiction of the Shoreline Management Act of 1971. Those shorelines not specifically designated by map are placed in the "conservancy" environment.

The maps are arranged in the order given below:

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APPENDIX 5

BACKGROUND, COLUMBIA RIVER SEGMENT

INTRODUCTION

This Background Material is hereby incorporated into the Pacific County Shoreline Master Program by reference.

SECTION 1 - COLUMBIA RIVER SEGMENT PLAN

1.01 *MAJOR ISSUES AND DECISIONS*

The shoaling problem in Baker Bay and its impacts on navigation and the viability of the Ports of Ilwaco and Chinook are overriding issues. Other important issues include: 1) Public access to the shoreline, 2) location of dredged material disposal sites, 3) protection of natural habitat, 4) potential impacts of mining and mineral extraction.

The Baker Bay Plan attempts to provide adequate area for future development while conserving and protecting important natural resources.

1.02.01 *KNAPPTON/FRANKFORT*

This area includes shoreland and aquatic areas east from the Astoria-Megler bridge to the Pacific-Wahkiakim County line.

Salmon, sturgeon and other fish species are common. The north channel adjacent to this area is a migration route for salmon. Primary and secondary plankton production in the water column is seasonally high.

There are a few marshes and tideflats between Knappton and Rocky Point and several shallow areas have been cut off by the highway causeways. Circulation is vigorous and flushing excellent, except in the shallow areas cut off by the highway, where it is poor. The shoreline is exposed to wind and wave erosion and has been rip-rapped extensively.

Shorelands are forested. Elk, deer, bear, and bald eagles are relatively common. The soils are mostly Bunker on steep slopes. There are some Nuby soils and filled lands that are subject to flooding.

Existing land and water uses include residences, commercial and sport fishing, pleasure boating, and forest management. Corporate timber companies own most of the shorelands with the exception of other private and state (Frankfort) holdings. Tidelands are in private hands except near

Portugese Point where the Washington State Department of Natural Resources manages state tidelands.

There is no development pressure. In the future, there could be increased demand for shoreline access. Conflicts in this area relate to timber management. Logging may increase sedimentation and displace wildlife, including bald eagle nests.

Two areas that have potential for recreational access are identified. The first is an outcropping on the west end of Hungry Harbor. The second is the boat ramp at Knappton's old saw mill site.

1.02.02 *MCGOWAN*

This area includes shoreland and aquatic areas from the Astoria-Megler bridge west to include Chinook point. Most of Fort Columbia State Park is included.

Fish support is moderate to high. Aquatic areas include beaches and water areas along the north channel. Water depths range to 50 feet along the channel and the beach slope is relatively steep. The beach is composed of coarse, sand sediment with gravel and larger rock. Tidal currents are strong and flushing action rapid. These areas support shellfish plankton and other aquatic animals, including salmon, sturgeon, starry flounder and juvenile crab. Benthic populations are probably low to moderate. There are small fringes of marsh vegetation along the protected portions of the beach.

Shorelands include steep forested land and some flat land around McGowan. Bunker and Satsop soils predominate in the steep areas and Ocosta soils occupy the flat areas. Wildlife values are moderate but the highway running along the shoreline creates a barrier. Deer, elk, bear, bald eagle, hawks, waterfowl, and small mammals are relatively common in the areas. Shoreland hazards include slides and erosion.

U.S. Highway 101, is the predominant feature. Land and water uses include commercial and sport fishing, recreational boating, forest management, and State Park usage.

Tidelands are nearly all in private ownership, except for state owned areas around Chinook Point. Shoreland ownership is private around McGowan and corporate in the forested portions. The beach in this area gets some recreational use. Parking is limited.

There is little development pressure or potential in this area. Excepting McGowan, very little buildable land exists. Development constraints such

as a high water table limit development. Fort Columbia State Park is a historical and recreational resource. Improvement of its facilities, consistent with maintaining the natural, scenic character is desired.

1.02.03 *CHINOOK*

The area includes the unincorporated Town of Chinook and aquatic areas of Baker Bay. A junior taxing district, the Port of Chinook, is included.

Fish support value is moderate to high. Wetland vegetation west of the mooring basin provides primary production and marsh habitat. Tidal flats and subtidal areas have high Benthic production. Oligochaetes (worms) and clams are abundant. A sandy beach exists east of the basin. A large tract of freshwater wetlands north of the town has developed from beaver dams, siltation of the Chinook River and installation of a tidegate near the river mouth. Except for the navigation channel, aquatic areas are shallow. Water circulation is dependent on winds and tides. Their patterns are poorly known. Flushing, also dependent on winds and tides, is good. Water quality in the basin fluctuates seasonally depending on the amount of fish wastes and boat traffic.

Soils include Westport and Yaquina associations, and filled land. A filled area to the east of the basin is a stockpile site for dredged material disposal. Soils have a high potential for flooding and erosion. They are characterized by a seasonally high water table.

To the north wildlife value of the shorelands is moderate. Deer, beaver, and other small mammals inhabit the area.

The unincorporated town and the port exhibit residential, commercial, and industrial uses along with boat moorage, navigation, and dredged material disposal. The Port of Chinook moorage facility is the third largest in the estuary, with a capacity of 323 vessels.

The Port of Chinook has significant potential for expansion. The Port's short-range plans call for additional moorage facilities within the existing basin. Long-range plans include an expanded basin, additional service facilities, and a barge unloading area.

The planning process include extensive discussion of the appropriate areas for Port expansion. The draft plan provided for expansion only to the west of the existing facilities. After consideration of the natural resource values and other factors, the expansion area was reduced on the west and some area was added to the east.

Severe shoaling problems throughout Baker Bay threaten the navigation channel into the Port of Chinook. Dredging occurs more frequently and is increasing in cost. The disposal of dredge material is a growing problem.

The conversion of Chinook Park to overnight use has resulted in heavy use by tourists and complaints from local residents that they can no longer enjoy the park.

1.02.04 *CHINOOK RIVER*

This area covers the 100 year flood plain of the Chinook River and includes marshes along the North shore of Baker Bay.

The fisheries resource consists mostly of warm water fish in the Chinook River and its tributaries and salmon raised at the Sea Resources hatchery. Wetlands exist adjacent the Chinook River and along Baker Bay between the Chinook River Bridge and town. The river is navigable by small boats for most of its length. River discharge is controlled by a tidegate at U.S. Highway 101.

Shorelands in this area consist of tideland soils. These are Ocosta, Westport, Yaquina, and Rennie associations. High erosion and flood potential exist. The shorelands are in agricultural use with limited forest acreage. The Ocosta and Rennie soils are excellent agricultural soils. Deer, elk, and smaller animals, frequent the area.

Existing uses include agriculture, rural housing, recreation and an abandoned industrial site at the mouth of the Chinook River. This area receives recreational usage by hunters and those who enjoy watching wildlife.

Issues and Findings

There is little pressure but, the potential exists for industrial and residential development. Mineral leases are let below mean high tide (MHT). The existing industrial site is somewhat incompatible with adjacent trailer parks and rural housing.

The peninsula at the mouth of the Chinook River between Highway 101 and Baker Bay has potential as a possible park or water front access point. This location would offer both visual and physical access to Baker Bay and tidal wetlands.

1.02.05 *BAKER BAY*

The Baker Bay hydraulic system is complex and poorly understood. Prior to construction of the south jetty in the 1890's, Baker Bay was an open water environment very exposed to winds and waves. Sheltered anchorage and deep water existed in the lee of Cape Disappointment; most of the bay was navigable. Construction of the south and north jetties caused very nearly its present topography 1910; shoaling continued to move northward for another 30 years. The area between Chinook Point and Chinook has always been shallow, but, like the rest of the bay, this area has shoaled considerably.

Following construction of the Chinook Jetty and Sand Island dikes in the 1930's, Sand Island began to erode and breach. The gap between the island appeared in early 1940's and has gradually become the entrance, through which most of the tidal exchange occurs. This process may have been accelerated by the construction of Jetty A in 1939.

There is a sand transport system that extends from Chinook Point to the seaward end of big Sand Island. There are two gaps, the Chinook Channel and the breach between the islands. Judging from shoaling on the east side of the Chinook channel and erosion along little Sand Island to the west, sand transport east of Chinook Channel is toward the mouth of the river. The transport along big and little Sand Islands is not unidirectional. During storms, it is upstream, while river currents cause downstream transport. This pattern is complicated by the pile dikes. Some sand may also be transported into the bay through the gaps.

The existence of the three entrances makes water circulation very complex and the maintenance of navigation channels difficult. Because the breach in the island is the major entrance, the scouring action in the navigation channels is comparatively weak. As the understanding of the bay improves, realignment of the channels through the gap may occur.

The interior of the bay has changed with jetties and other protective improvements. Material in the bay ranges from sands in the channels to mixed sands, silts and clays on the flats at the northern part of the bay. The bar extending west from Chinook Point is hard sand. It is speculated that from Chinook Point is hard sand. It is speculated that sedimentation of fine material results from flocculation. The silts and clays carried by the fresh river water precipitate when it is diluted by saline sea water. This shoaling mechanism may have operated in a different location before the maintenance of the Columbia River entrance channel at a depth of 48 feet as opposed to the natural depth of 20 to 30 feet. The greater channel depth allowed a greater volume of salt water to enter the bay. Little is known of the earlier biology of Baker Bay, except that it was filled with migrant salmon. Fish traps were very profitable.

Primary organic production is very high in the water column and in the surrounding marshes. A small *Salicornia* (pickleweed) marsh has formed on the northern side of Sand Island. Other large marshes have formed around large Sand Island, and the marshes through the bay appear to be expanding as the bay shoals. Secondary organic production include clams, polychaetes, oligochaetes, crab, and sand shrimp. Some fish found in this area include juvenile salmon, juvenile starry flounder, and juvenile Dungeness crab.

There are two authorized navigation channels into Baker Bay. The Chinook Channel extends 1.3 miles from the Columbia River Channel to the Chinook Basin. It is authorized at 10 feet deep and 150 feet in width. Shoaling problems are severe; the worst shoal encroaches from Chinook Point to the east, opposite little Sand Island.

The Baker Bay West Channel follows a circuitous course from Jetty A to the Port of Ilwaco. The first half mile of the authorized channel is 10 feet deep and 200 feet wide; the remaining 2.7 miles to the Port is 10 feet deep and 150 feet wide. The channel has a moderate shoaling problem, with the worst shoals at the seaward end and at the final turn into Ilwaco.

The Sand Island have a moderate wildlife value as a nesting and resting area for gulls and Caspian terns. The most important area is the western end of Little Sand Island.

The shorelands of the Large Sand Island have limited pasture value. There is a grazing lease with the Corps of Engineers. Aquatic uses include crabbing, fishing, and boating.

Alterations are extensive in Baker Bay. Several thousand pilings from old fish traps remain. The Chinook Jetty and the pile dikes along the southern shore of the island were built to direct river flow to the main navigation channel and prevent erosion of the island. Also the southern shore of Little Sand Island was rip-rapped. The remains of a pier and railroad bed used to unload the material remain on Little Sand Island.

Issues and Findings

Conflicts include impacts on aquatic and terrestrial habitat of dredging, dredged material disposal, and black sands mining.

The mineral rights to most of Baker Bay have been leased for Black sands mining. This mining would have unknown impacts on the hydraulics and the biological productivity of the bay.

1.02.06 *WALLACUT RIVER*

This area covers the 100 year flood plain of the Wallacut River. It includes the aquatic areas of the river, and adjacent marsh along Baker Bay.

The fisheries resources consists mostly of warm water fish. Water depths in the river are shallow. River flow is controlled by a tidegate near the mouth and is significantly affected by vegetation in the water.

Most shorelands consist of tideland soils. These are Ocosta, Westport, Yaquina, and Rennie associations. Soil characteristics are high erosion and flood potential. The Ocosta and Rennie soils are excellent agricultural soils (Classes III and IV).

Uses include agriculture, housing and trailer parks. Vandalia, a large scale housing development is being built to the north and west of the airfield. The tideland soils are used extensively for agriculture. Remnants of dikes remain along the Wallacut River, but are no longer maintained.

Issues and Findings

The area has significant development potential and growth pressure from the adjacent Town of Ilwaco. Development plans for Vandalia call for high density housing to the west of the airport. Areas immediately east of Ilwaco have a moderate to steep slope. Development should proceed cautiously in order to avoid erosion and slides.

1.02.07 *FORT CANBY NORTH*

This area includes the shorelands from the northern boundary of the state park boat launch to Ilwaco city limits. The water boundary is the western edge of the entrance channel.

Primary production is high along the shoreline marshes, while secondary production is high in the flats. Extensive sedge and bulrush marshes have developed in the smaller embayments and have been intensively studied. Water depths are extremely shallow between the marshes and the channel.

Shorelands include forested areas. Bird and wildlife values are high and include deer and smaller furbearers. Soils in this area are Yaquina and Zenker associations, and slopes are moderate to steep. Some very old forest exists along the shoreline, predominantly Sitka spruce.

Existing land and water uses include boating and fishing. Adjacent uses include park development, Coast Guard operations, and the developed area in Ilwaco. Tidelands are owned by the Department of Natural

Resources or State Parks. The shorelands are owned by the state and federal governments.

1.02.08 *CAPE DISAPPOINTMENT*

This area extends from the tip of the North Jetty, east to the western side of the entrance channel. The shoreland area, all of which is in Fort Canby State Park or the Coast Guard Base, includes 200 feet of Benson Beach north of the Jetty A, and the shorelands of Baker Bay north to the northern boundary of the state park boat launch. Aquatic areas include portions of Baker Bay west of the navigation channel between Jetty A and the northern boundary of the area; the waters between Jetty A and the North Jetty in the main Columbia River; minor sloughs and wetlands behind the North Jetty.

Plankton populations, Benthic production and fish support values are high, both in Baker Bay and in the Columbia River portions of the area. Recreational and commercial crabbing is popular south and west of Cape Disappointment; recreational fishing is popular of the North Jetty.

Water depth ranges from tidal flats east of Jetty A to more than 60 feet off the tip of Jetty A. The Columbia River side is dynamic; currents are strong, wave action is significant, sediments are coarse, and the water is deep. This area is adjacent to the main entrance channel and small boats sometimes run along the North Jetty for protection. The Baker Bay side of the channel is protected by Jetty A and Cape Disappointment. Sediments become progressively finer north along the channel. There is a shoaling problem in the outer part of the Baker Bay West Channel, just inside Jetty A.

Shorelands include Benson Beach, the rocky promontories of Cape Disappointment, and accreted land east of Jetty A. Wildlife value is high in the state park area for deer and smaller forbearing animals. On the cliffs, gulls, pelagic cormorants and other marine birds predominate. Soil associations include dune land (north of North Jetty and east of Jetty A) and Umbric Dyetrochrepts (on Cape Disappointment). There is a potential flooding and erosion hazard on the dune land. Uplands are steep and rocky.

This area is entirely in public ownership. The State of Washington manages the state park which is on a long term lease from the Bureau of Land Management and the U.S. Corp of Engineers. The federal government owns Cape Disappointment. Existing land and water uses include fishing, boating, shipping, state park recreational activities, and a Coast Guard rescue facility which includes both operations and housing.

Issues and Findings

The Coast Guard will be expanding its dock facility at its present location. This project may involve limited filling and placement of piling. Other potential developments aside from those proposed by the Coast Guard would depend on future plans in the state park. Provision has been made for expansion of parking facilities at the North Jetty.

SECTION 2 - DREDGED MATERIAL DISPOSAL PLAN

2.01 *BAKKER BAY PROJECTS*

Baker Bay projects includes federally authorized navigation channels maintained by the Corps of Engineers at Ilwaco and Chinook, and mooring basins maintained by the ports of Ilwaco and Chinook. Included in this discussion of existing projects are future channel and basin improvement plans.

2.01.01 *BAKKER BAY WEST CHANNEL*

The federally authorized project consists of a westerly channel, 10 feet deep, 200 feet wide for 2,000 feet at the southerly end and 150 feet wide for 2.5 miles to the mooring basin at Ilwaco. The channel provides navigational access to the Port of Ilwaco, to the Coast Guard facility at Cape Disappointment and to a public boat ramp at Fort Canby. Shoaling normally occurs near the channel entrance between channel mile 0.3 and 0.5. Two shoals commonly occur at the lower end of the channel, between mile 2.2 and 2.5 and in the vicinity of channel mile 3.0, at the entrance to the Ilwaco oat basin. The range of tides at Ilwaco is approximately feet, with an extreme range of 13 feet. The sediment in Baker Bay in the vicinity of the channel is classified as sand, silty sand, and silt. The average density of material ranges from 1,350 grams per liter (1,990 lbs per cubic yard), at the lower end of the channel, to 2,000 grams per liter (2,960 lbs per cubic yard), at the mouth of the channel. Generally, maintenance dredging is required on a continuing basis at the mouth of the channel, while maintenance requirements at the lower end of the channel have been minimal.

Periodic maintenance dredging for existing moorage and new construction dredging at the Coast Guard Station are required. This should have minimal effect on Baker Bay. Continued use of this facility is a public benefit. The Coast Guard has lease agreements to the land area east of Jetty A. Part of this area has potential for use as a dredged material disposal site (DMS Site 2S). Any future plans or proposed changes in the West Channel must consider the Coast Guard facility and its operational requirements.

Several dredging techniques have been used to maintain the West Channel. Propwash agitation has been used with limited success. The severity of shoaling at the mouth of the channel requires hopper dredging. The shoal at the entrance to the Ilwaco mooring basin, has been maintained by pipeline dredging. The Cape Disappointment dredged material is clean sand suitable for in-water disposal, while the Ilwaco Shoal dredged material consists of silty sediments, requiring disposal at upland sites. Mid-channel shoal materials have not been sufficiently characterized to determine the most appropriate method of dredged material disposal.

The Corps of Engineers has proposed improvements to navigational access to the Port of Ilwaco. Potential improvements include, realigning the mouth of the channel, deepening the existing channel to minus 16 feet MLLW, and dredging a straightened entrance channel to the Ilwaco mooring basin. The latter entails dredging of a limited amount of intertidal estuarine habitat. These channel improvements will require upland dredged material disposal areas for initial excavation and continuing maintenance dredging. Dredged material disposal sites identified on Sand Island will be appropriate for disposal needs.

Future maintenance dredging at the mouth of the West Channel should be accomplished with hopper dredging equipment, disposing of dredged materials in-water. Continued maintenance of mid-channel projects depths by propwash agitation will require review as additional information becomes available. Circulation and sedimentation patterns are of concern.

BAKER BAY WEST CHANNEL--DREDGING AND DREDGED MATERIAL DISPOSAL REQUIREMENTS

<u>Project</u>	<u>Amount Dredged</u>	<u>Site</u>	<u>Capacity</u>	<u>Priority</u>
Mid-Channel	20,000 cy/yr 100,000 cy/5 yr 400,000 cy/20 yr	E(0)	Ocean Disposal	
Ilwaco Shoal	10,000 cy/yr	3(S)	360,000 cy/10'	1
	50,000 cy/5yr	4(S)	1,280,000 cy/10'	1
	200,000 cy/20 yr	5(S)	1,520,000 cy/10'	1
Cape Disappointment Shoal	20,000 cy/yr	E(0)	Ocean Disposal	
	100,000 cy/5 yr	D(E)	Estuary Disposal	
	400,000 cy/20 yr			

Channel Improve- ments (minus 16 feet MLLW)	300,000 cy initial	3(S)	360,000 cy/10'	1
	excavation	4(S)	1,280,000 cy/10'	1
	(maintenance re-	E(0)	1,520,000 cy/10'	1
	quirement unclear)	E(0)	Ocean Disposal	

1/ Sites described in Columbiz River Estuary Regional Management Plan.

2.01.02 *CHINOOK CHANNEL*

The federally authorized project at Chinook provides for a channel 10 feet deep and 150 feet wide running northerly from the head of Sand Island to the Port of Chinook. The channel, at the entrance to the Chinook mooring basin, includes a turning basin with a maintained depth of minus 10 feet MLLW. The federally maintained channel is approximately two miles in length. Extensive shoaling occurs throughout the channel, requiring frequent maintenance dredging. Contract pipeline, hopper, and propwash dredging equipment have been used in the Chinook Channel.

Channel material, from the entrance at San Island to Mile 1.1 in clean and silty sand, with a density of approximately 1,960 grams per liter (2,960 lbs per cubic yard), and is suitable for in-water disposal. Generally, the Corps of Engineers maintains the outer reach of the Chinook Channel with hopper dredging equipment, with disposal in-water. Sediments found in interior reaches of the channel are characterized as slightly contaminated silty sand and silt, with a density of approximately 1,220 grams per liter (1,910 lbs per cubic yard). The spoils require upland disposal. These sediments have been removed by pipeline dredging equipment in past years and spoiled at Sand Island. The extensive shoals on the east and west sides of the Chinook Channel, together with a cross current, make maintenance dredging operations difficult. Recent maintenance operations have restored project depths throughout the channel and deepened the turning basin, allowing turning by small hopper dredges. The Corps anticipates that future maintenance will be accomplished entirely with hopper equipment. Disposal of material removed by hopper dredging plant will be in-water. No changes in the dimensions of the federally authorized channel are anticipated; however, realignment of the outer portion of the Chinook Channel is under consideration in the interest of reducing maintenance dredging.

CHINOOK CHANNEL--DREDGING AND DREDGED MATERIAL DISPOSAL REQUIREMENTS

<u>Project</u>	<u>Amount Dredged</u>	<u>Site</u>	<u>Capacity</u>	<u>Priority</u>
Outer Channel (Mile (to 1.1)	45,000 cy/yr 225,000 cy/5 yr 900,000 cy/20 yr	D(E)	Estuary Disposal	
Inner Channel (Mile 1.1 to Mooring Basin)	Approximately-- 300,000 to 400,000 cy averaged for five years	9a(S) D(E)	Full Estuary Disposal	

1/ Sites described in Columbia River Regional Management Plan

2.01.03 *PORT OF CHINOOK*

The Port of Chinook operated a mooring basin at the head of Chinook Channel, providing berths for approximately 300 commercial fishing and recreational vessels. Use of the moorage basin is heaviest during summer months and gillnet season openings. The Chinook Packing Company operates a fish receiving station and cannery on uplands adjacent to the Port of Chinook mooring basin. The Chinook basin is the third largest port in the lower estuary and provides access to the mouth of the Columbia River via the north channel.

The present mooring basin at Chinook is approximately 500 feet by 600 feet, with depths to 18 feet near receiving docks. Maintenance dredging of the mooring basin is accomplished by a small port-owned hydraulic dredge, capable of removing up to 20,000 cubic yards of sediment annually. All dredged material is spoiled at an upland site 10s east of the basin. Site 10S serves as a retention area, since materials deposited behind berms at the site are removed following dewatering for local use as fill material.

Future expansion by the Port of Chinook is constrained. The dredged material disposal area limits expansion to the east, while the Chinook packing plant and tidal marsh adjacent to the west are obstacles to enlarging the basin along the shoreline to the west.

The present breakwater would require relocation if basin expansion were to extend to the south. Present disposal site arrangement are adequate for maintenance of the existing basin, provided the local demand for fill material continues to restore the capacity o site 10S. Construction

dredging for expansion, and accompanying increased maintenance dredging requirements, would necessitate designation of additional upland disposal areas.

PORT OF CHINOOK--DREDGING AND DREDGED MATERIAL DISPOSAL REQUIREMENTS

<u>Project</u>	<u>Amount Dredged</u>	<u>Site 1/</u>	<u>Capacity</u>	<u>Priority</u>
Mooring Basin	5,000 to 10,000 cubic yards per year	10S	10,000 cy/yr	1

1/ Site described in Columbia River Regional Management Plan

SECTION 3 - RESTORATION PLAN

3.01 *SHOAL AREA RESTORATION*

3.01.01 *BAKER BAY*

Extensive dredging and/or closing of the breach between Big and Little Sand Islands are proposed as possible restoration measures. Further research is needed on the hydraulics and biology of Baker Bay before action is taken to alter the shoaling problems in the bay. Other related restoration projects include removal of old fish traps and removal of the Chinook Jetty.

3.02 *PILE DIKE REMOVAL*

There are pilings which are relics of fish traps, docks, piers, fish processing facilities and other structures. Many of these are harmless and are aesthetically pleasing reminders of earlier days. Some, however, present serious navigation hazards and contribute to shoaling.

Pile dikes to control erosion or to channel river water are numerous. Most perform effectively, but some are believed to be principal contributors to undesirable shoaling.

3.02.01 *BAKER BAY - ABANDONED PILINGS*

The remains of abandoned fish traps also contribute to shoaling and represent a navigational hazard. Systematic inventory and removal of pilings is recommended.

3.02.02 *CHINOOK JETTY - (PROJECT 5 F)*

The 3,000 foot flow control structure may be a major cause of shoaling in Baker Bay. Removal of the jetty may improve scouring; however, further research is needed.

3.03 *FISHERIES ENHANCEMENT*

Fisheries enhancement projects to improve habitat and supplement existing or former fish runs is encouraged by policy and would be appropriate for many estuary tributaries. Examples of fishery enhancement projects include regravelling of streams to improve spawning habitat; removal or bypass of old tidegates, dams or waterfalls; construction of salmon-rearing ponds; and, work with state hatchery programs and lumber companies to improve stream habitat.

3.03.01 *WALLACUT RIVER - (PROJECT 1F)*

The Wallacut River is heavily silted. Chum salmon might be restored if the stream is dredged, areas near tidewater regravelled, and obstructions to fish passage by-passed or removed. Careful management of streamside vegetation will reduce siltation.

3.03.02 *CHINOOK RIVER - (PROJECT - 2F)*

Siltation of the Chinook River has reduced historical anadromous fish runs. Dredging to improve fish passage and removal or bypass of tidegates may improve the salmon fishery potential. Regravelling silted areas and stream management are also recommended.