

ECOLA CREEK ESTUARY AND SHORELANDS *

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* Ord. 92-5 , dated June 10, 1992

1. INTRODUCTION

The Ecola Creek Estuary and Coastal Shorelands Element is part of the Clatsop County Comprehensive Plan. This element fulfills the County's Comprehensive Planning needs for the Ecola Creek Estuary under Statewide Planning Goals 16 and 17.

The inventory information contained within this element has been derived from several sources: the Cannon Beach Urban Growth Boundary Plan, Cannon Beach Wastewater Treatment Plan, and from a memo written by Rainmar Bartl and Duncan Thomas for Clatsop County. This plan element was originally developed in 1983. It was updated in 1992.

An exception has been adopted by the County (1985) to allow Cannon Beach to expand its wastewater treatment plant into Ecola Creek Estuary wetlands. The area covered by the exception has since been added into the Urban Growth Boundary.

2. PLANNING REQUIREMENTS

Statewide Planning Goals 16 and 17 are addressed in this plan element as they pertain to the Ecola Creek Estuary. Statewide Planning Goal 16, Estuarine Resources, establishes the following specific goals:

To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and

To protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.

Statewide Planning Goal 17, Coastal Shorelands, establishes the following specific goals:

To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and

To reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.

The planning requirements performed by the County under these goals are outlined below, and carried out in the rest of this plan element, and in the County's Land and Water Development and Use Ordinance.

Goal 16 Inventory Requirements: information on the nature, location and extent of physical, biological, social and economic resources.

Goal 16 Comprehensive Plan Requirements:

- Identify each estuarine area;
- Describe and maintain the diversity of important and unique environmental, economic and social features within the estuary;
- Classify the estuary into management units;
- Establish policies and use priorities for each management unit using the standards and procedures set forth below.
- Consider and describe in the plan the potential cumulative impacts of the alterations and development activities envisioned. Such a description may be general but shall be based on the best available information and projections.

Goal 16 Implementation Requirements:

- Impact Assessment
- Dredging and Filling Restrictions
- Existing State and Federal Programs
- Minimum Fresh-water Flow Rates
- Mitigation
- Dredged Material Disposal
- Single-purpose Docks
- Restoration Areas
- State Agency Planning Responsibilities

Goal 17 Inventory Requirements: information on the nature, location and extent of geologic and hydrologic hazards and shoreland values, including fish and wildlife habitat, water-dependent uses, economic resources, recreational uses, and aesthetics.

Goal 17 Comprehensive Plan Requirements:

- Identify coastal shorelands (which includes estuarine shorelands)

- Establish policies and uses of coastal shorelands
- Establish policies and uses of coastal shorelands in accordance with the Goal's standards.

Goal 17 Implementation Requirements:

- Forested Shorelands
- Mitigation Sites
- Dredged Material Disposal Sites
- Riparian Vegetation
- Erosion Protection
- Public Access

3. ECOLA CREEK ESTUARY INVENTORY

Ecola Creek is a well-mixed tidal creek having very low estuarine biological and moderate terrestrial values. The head of tide is between 250 and 350 feet upstream of the Highway 101 bridge. The estuarine portion of Ecola Creek (that is, the tidally-influenced portion) is slightly more than one-half mile long. The upstream limit of salt water intrusion is not known. Most of the estuary is in the Cannon Beach City Limits and UGB.

The Statewide Planning Goals define an estuary as:

A body of water semi-enclosed by land, connected with the open ocean, and within which salt water is usually diluted by freshwater derived from the land. The estuary includes: (a) estuarine water; (b) tidelands; (c) tidal marshes; and (d) submerged lands. Estuaries extend upstream to the head of tidewater.

Ecola Creek has no definable major tracts of salt marsh, tideflats, or seagrass or algae beds. According to the *Estuarine Resources of the Oregon Coast*, by the Oregon Coastal Conservation and Development Commission, 1974, Ecola Creek may qualify as a Type III or "Conservation Estuary" (areas to be designated for long-term uses of renewable resources and that do not require major alteration of the estuary, except for purposes of restoration). The report also states that due to the existence of minimal estuarine characteristics, Ecola Creek may also be considered a "drowned tidal creek". For these reasons, Ecola Creek was found not to warrant a natural designation. The entire tidal portion of the creek has been designated conservation. Ecola Creek has sediments of mixed sand, gravel, and mud. These sediment types combined with low salinity limit use of Ecola Creek to small anadromous fish runs of coho and steelhead trout. But for its size, Ecola Creek sustains a fairly large run of native searun cutthroat trout.

The land edge character upstream from the Highway 101 bridge is moderately diverse. The study, *Development and Evaluation of Wetlands/Marsh Wastewater Treatment System*, undertaken for the City of Cannon Beach, identified three habitat types: blackberry/alder, alder/sedge, and spruce/alder.

In 1983, the City of Cannon Beach proposed using approximately 15 acres of the 100 acre wetland area adjacent to the southern edge of Ecola Creek for a wetlands/marsh wastewater treatment system. Development of that system resulted in the filling of approximately .03 acres of estuarine area. The County adopted an Exception to the Estuarine Resources Goal and the Coastal Shorelands Goal to permit this development (see Exceptions, Appendix B). The area covered by the exception has since been added into the Urban Growth Boundary.

4. ECOLA CREEK ESTUARY SHORELANDS INVENTORY

The Estuary Coastal Shorelands Boundary around the Ecola Creek Estuary is 50 feet landward measured from the line of Mean Higher High Water (MHHW), or measured from the upper limit of aquatic vegetation when it is present. The Boundary extends further where wetlands adjacent to the estuary itself are included. The boundary is shown on the attached map.

5. ECOLA CREEK ESTUARY PLANNING GOALS

The Ecola Creek Estuary is classified as a *conservation* estuary. The Estuarine Resources Goal describes a conservation estuary or management unit as :

In all estuaries, except those in the overall Oregon Estuary classification which are classed for preservation, areas shall be designated for long-term uses of renewable resources that do not require major alteration of the estuary, except for the purpose of restoration. These areas shall be managed to conserve the natural resources and benefits. These shall include areas needed for maintenance and enhancement of biological productivity, recreational and aesthetic uses, and aquaculture. They shall include tracts of significant habitat smaller or of less biological importance than those in (1) above [natural areas], and recreational or commercial oyster and clam beds not included in (1) above [natural areas]. Areas that are partially altered and adjacent to existing development of moderate intensity which do not possess the resource characteristics of natural or development units shall also be included in this classification.

The Estuarine Resources Goal 16 allows the following uses in Conservation Aquatic management units:

- a. undeveloped low-intensity, water-dependent recreation;
- b. research and education observations;
- c. protection of habitat, nutrient, fish, wildlife and aesthetic resources;
- d. passive restoration measures;
- e. dredging necessary for on-site maintenance of existing functional tidegates and associated drainage channels and bridge crossing support structures;
- f. riprap for protection of uses existing as of October 7, 1977, unique natural resources, historical and archeological values; and public facilities;
- g. bridge crossings;
- h. communication facilities;

- i. active restoration of fish and wildlife habitat or water quality and estuarine enhancement;
- j. pipelines, cables and utility crossings, including incidental dredging necessary for their installation;
- k. installation and maintenance of tidegates in existing functional dikes;
- l. bridge crossing support structures and dredging necessary for their installation;
- m. active restoration for purposes other than those listed in (i); and
- n. temporary alterations.

6. ECOLA CREEK ESTUARY SHORELANDS PLANNING GOALS

The Coastal Shorelands Goal identifies the following minimal extent of Coastal Shorelands:

- 1. Areas subject to ocean flooding and lands with 100 feet of the ocean shore or within 50 feet of an estuary or a coastal lake;
- 2. Adjacent areas of geologic instability where the geologic instability is related to or will impact a coastal water body;
- 3. Natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas;
- 4. Areas of significant shoreland and wetland biological habitats whose habitat quality is primarily derived from or related to the association with coastal water areas;
- 5. Areas necessary for water-dependent and water-related uses, including areas of recreational importance which utilize coastal water or riparian resources, areas appropriate for navigation and port facilities, dredge material disposal and mitigation sites, and areas having characteristics suitable for aquaculture;
- 6. Areas of exceptional aesthetic or scenic quality, where the quality is primarily derived from or related to the association with coastal water areas; and
- 7. Coastal headlands.

The Ecola Creek Estuary shorelands include lands identified under number 1, above, as well as riparian zones (number 3), and wetlands (number 4).

7. ECOLA CREEK ESTUARY AND SHORELAND POLICIES

1. The Oregon Department of Fish and Wildlife considers Ecola Creek an important searun cutthroat trout stream. The Creek also contains a coho salmon and steelhead run. Activities which would further degrade the habitat value of the creek and its adjacent wetlands shall be prohibited.
2. Efforts to improve and protect the Ecola Creek wild run fishery are supported by Clatsop County.
3. Alterations to the shoreline of the Creek which would alter the flow of the stream are not permitted.
4. Riparian vegetation along Ecola Creek shall be protected, except where removal is permitted or when an Exception to the Coastal Shorelands Goal has been taken.
5. All activities in the Ecola Creek Estuary shall be coordinated with the City of Cannon Beach.
6. Adverse impacts to estuarine resources resulting from dredge or fill permitted in intertidal or tidal marsh areas shall be mitigated by creation, restoration or enhancement of estuarine areas. Such mitigation shall improve or maintain the functional characteristics and processes of the estuary, such as its natural biological productivity, habitats and species diversity, unique features and water quality. The cost of mitigation shall be included as part of project cost analysis.
7. Clatsop County will not require compensatory mitigation for actions in the Ecola Creek Estuary when exempt from the State of Oregon's mitigation requirements.
8. Clatsop County supports the development of the City of Cannon Beach's wetlands/marsh wastewater treatment system and has taken an Exception to the Estuarine Resources Goal and the Coastal Shoreland Goal to permit its development.
9. Filling of Ecola Creek or the adjacent wetlands shall be allowed only with permit approval from the Division of State Lands. Filling may require mitigation as prescribed by the Division of State Lands.
10. Dredging may be permitted only for:
 - a. Active restoration or estuarine enhancement;
 - b. Bridge crossing support structures;
 - c. Submerged cable, sewer line, water line, or other pipeline; or
 - d. Incidental dredging necessary for the construction of a through c above.

Dredging shall disturb the minimum area necessary for the project and shall be conducted so as to protect or enhance wetlands and other estuarine resources.

11. Proper management of existing streamside vegetation is the preferred method of shoreline stabilization, followed by planting of vegetation. Where vegetative protection is inappropriate (because of high erosion rate, the use of the site, or other factors), structural means such as riprap or bulkheading may be considered, if consistent with the restrictions in the estuarine zone.

12. Fill may be permitted only as part of the following uses and activities:

- a. Maintenance and protection of man-made structures existing as of October 7, 1977;
- b. Active restoration or estuarine enhancement;
- c. Bridge crossing support structure;
- d. In conjunction with a use for which an Exception has been taken.

13. The dredging and filling provided for in Policies 10 and 12 shall be allowed only:

- a. If required for navigation or other water dependent uses that require an estuarine location or if specifically allowed by the applicable management unit requirements of the State Estuarine Resources Goal;
- b. If a need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights; and
- c. If no feasible alternative upland locations exist; and
- d. If adverse impacts are minimized.

Other uses and activities which could alter the estuary shall be allowed if the requirements in (b), (c), and (d) are met.

14. Where a use could potentially alter the estuarine ecosystem, the County shall require a clear presentation of the impacts of the proposed alteration .

15. As required by Statewide Planning Goal 16, Estuarine Resources, some development uses and activities in certain management zones must be consistent with the resource capabilities of the management zone or unit. A procedure for determining if a development is consistent with the resource capabilities of the zone is set forth in the County Development Code (Section 5.960 Resource Capability Determination).

The following uses must be shown to be consistent with the resource capabilities of the area and the purposes of the estuarine zone:

- a. Riprap shoreline stabilization for purposes other than protection of uses existing as of October 7, 1977, unique natural resources, historical and archeological values, and public facilities;
- b. Storm water and treated wastewater outfalls;
- c. Active restoration for purposes other than restoration of fish and wildlife habitat or water quality and estuarine enhancement;
- d. Bridge crossing support structures;
- e. Dredge, fill or piling necessary for the installation of uses listed above.

16. Temporary alterations are permitted to the estuary so long as they:

- a. Are of short term duration (generally less than 3 years.)
- b. Are consistent with the resource capabilities of the area; and
- c. Are such that the area and affected resources can be restored to their original condition, and
- d. Are needed to facilitate a use allowed by the plan.

17. The County shall rely on the Oregon Department of Environmental Quality (DEQ), and the Oregon Department of Agriculture where applicable to assess the impacts of actions affecting water quality, including wastewater effluent and the use of chemicals.

THE ECOLA CREEK ESTUARY PLAN
PERMITTED USE ACTIVITY TABLE

1. Bridge Crossing and Bridge Crossing Support Structure	C
2. Diking	
Maintenance and Repair of Dikes	P
Temporary Dike	P
Emergency Dike Repair	P
3. Dredging	C
4. Fill	C
5. Restoration	
Passive	P
Active	C
6. Research and Educational Observations	P
7. Non-motorized Boating, Individual	P
8. Piling	C
9. Shoreline Stabilization	
Vegetative	P
Riprap	C
10. Storm Water and Treated Wastewater Outfalls	C
11. Submerged Cable, Sewer Line, Water Line, or other Pipeline	C
12. Temporary Alterations	C
13. Estuarine Enhancement	C
P:	Permitted uses and activities may be undertaken subject to the standards set forth in the zoning ordinance and applicable State and Federal regulations.
C:	Conditional uses and activities may be undertaken subject to written findings, adopted after a public hearing, that the proposed use or activity is consistent with the policies of the comprehensive plan, appropriate zoning standards and, where required, that the use or activity is consistent with the resource capability of the area and the purpose of the estuary zone.

PACIFIC

OCEAN

ELK

CANNON BEACH CITY LIMITS

CANNON
BEACH

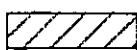
EAC ZONE @ 250 FT
FROM BRIDGE

ESTUARY BOUNDARY
@ 1000 FT FROM
HEAD OF TIDE

LW

LW

ELK CREEK ESTUARY

 ESTUARY & WETLANDS